



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Pennsylvania Field Office  
315 South Allen Street, Suite 322  
State College, Pennsylvania 16801-4850

September 25, 2014

Keith Lynch  
Federal Highway Administration  
228 Walnut Street, Room 558  
Harrisburg, PA 17101-1720

RE: Service Project #2007-2430

Dear Mr. Lynch:

This letter responds to your July 18, 2014, request for formal conference on the effects of the proposed northern long-eared bat (NLEB; *Myotis septentrionalis*) from the S.R. 6219, Section 020, project located in Somerset County, Pennsylvania. This conference opinion is based on information you provided in your biological assessment addendum (BAA; dated June 2014) as well as other information available in our files and is provided in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended, (16 U.S.C. 1531 *et seq.*).

A Biological Assessment was submitted to the United States Fish and Wildlife Service (Service) in June 2006 for Section 019. This Biological Assessment was supplemented with an amendment in February 2007. In October of 2007 the Service issued their Biological Opinion on the Section 019 project (Service Project #2007-1091), which stated that the proposed Section 019 project was not likely to jeopardize the continued existence of the Indiana Bat (*Myotis sodalis*). The Biological Assessment prepared for Section 019 was amended (*US 219 IMPROVEMENT PROJECT, SR 6219 SECTION 020 (Service Project #2007-2430) ADDENDUM, Revised March 2011*) to include Section 020. Consultation was then reinitiated between the Service and FHWA, and a subsequent (August 28, 2011) Amended Biological Opinion was issued. Further design modifications to Section 20, as well as information related to previously undocumented mine portals and their use as hibernacula for bat species, resulted in an additional amendment to the consultation (*US 219 IMPROVEMENT PROJECT, SR 6219 SECTION 020 (Service Project #2007-2430) ADDENDUM 2, December 2012*). The Service issued a Supplemental Biological Opinion on January 31, 2013.

The NLEB was proposed for listing as an endangered species on October 2, 2013. No critical habitat has been proposed at this time. Species proposed for listing are not afforded protection

under the Act; however, as soon as a listing becomes effective, the prohibition against jeopardizing its continued existence and “take”<sup>1</sup> applies regardless of an action’s stage of completion. Therefore, to avoid significant project delays the Service recommends that the effect of the project on NLEBs, and their habitat, be considered during the proposed project planning and design. Conferencing is a process of early interagency cooperation involving informal and/or formal discussions between the action agency and the Service pursuant to section 7(a)(4) of the Act regarding the likely impact of an action on proposed species or proposed critical habitat. The conference process is discretionary for all other effect determinations besides jeopardy/adverse modification. However, it is in the best interest of the species, and our federal partners to consider the value of voluntary conservation measures in a conference opinion that are not likely to cause jeopardy, but are likely to adversely affect the NLEB.

#### Description of the proposed action

The S.R. 6219, Section 020, project involves the construction of 10 miles of new, limited-access, four-lane highway extending from an existing highway section south of Somerset, Pennsylvania to Meyersdale, Pennsylvania, with a new interchange in the vicinity of Mud Pike in Black and Brothersvalley Townships. The project description is essentially the same as that considered in our August 29, 2011, Amended Biological Opinion. The action area, (*i.e.*, all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action) is described in the biological assessment as extending 1500 feet from the proposed edge of pavement, which encompasses in excess of 3,600 acres that is currently in a variety of land uses including mines, agriculture, rural residential and forest. The estimated area of direct forest removal needed to accommodate construction has, however, been increased from 230 acres to 270 acres to account for staging areas and temporary access roads (page 9 of the December 2012 Biological Assessment). An additional 50 acres of forest may be removed if necessary by the construction contractor to allow for disposal of material generated during road bed excavation.

A seasonal tree cutting restriction, permitting tree cutting only between November 15 and March 31, was incorporated in the project. Additional conservation measures also incorporated in the project include living snow fence, annual trapping and monitoring at some sites during and post construction, and a 50-foot riparian buffer around major streams corridors, where feasible. Compensation, through contribution to the Indiana Bat Conservation Fund (IBCF), was provided for impacts to all forest habitats, regardless of tree species composition or successional stage. A complete description of the proposed action can be found in the Biological Opinion for this project.

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<sup>1</sup> As defined in the Act, take means “. . . to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” “Harm” in the definition of take means an act which kills or injures wildlife. Such act may include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering (50 CFR part 17.3). “Harass” means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.

## NLEB Range

The NLEB is found in the United States from Maine to North Carolina on the Atlantic Coast, westward to eastern Oklahoma and north through the Dakotas, extending southward to parts of southern states from Georgia to Louisiana, even reaching into eastern Montana and Wyoming. In Canada it is found from the Atlantic Coast westward to the southern Yukon Territory and eastern British Columbia. Historically, the species has been found in greater abundance in the northeast and portions of the Midwest and Southeast, and has been more rarely encountered along the western edge of the range.

## NLEB Winter Habitat and Ecology

Suitable winter habitat (hibernacula) for the NLEB includes underground caves and cave-like structures (*e.g.* abandoned or active mines, railroad tunnels). These hibernacula typically have large passages with significant cracks and crevices for roosting; relatively constant, cool temperatures (0-9 degrees Celsius) and with high humidity and minimal air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible. NLEBs will typically hibernate between mid-fall through mid-spring each year. There may be other landscape features being used by NLEB during the winter that have yet to be documented.

## NLEB Summer Habitat and Ecology

During summer NLEBs roost singly or in colonies in cavities, underneath bark, crevices, or hollows of both live and dead trees and/or snags with a diameter at breast height (dbh) of three inches or greater. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on presence of cavities or crevices or presence of peeling bark. NLEBs have also been occasionally found roosting in structures like barns and sheds (particularly when suitable tree roosts are unavailable). NLEB emerge at dusk to forage in upland and lowland woodlots and tree-lined corridors, feeding on insects, which they catch while in flight using echolocation. This species also feeds by gleaning insects from vegetation and water surfaces.

Suitable summer habitat for NLEB 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 greater than or equal to 3 inches dbh that have exfoliating bark, cracks, crevices, 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 characteristics of suitable roost trees and are within 1,000 feet of other forested/wooded habitat. NLEB has 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. NLEBs typically occupy their summer habitat from mid-May through mid-August each year *and the species may arrive or leave some time before or after this period.*

NLEB maternity habitat is defined as suitable summer habitat used by juveniles and reproductive (pregnant, lactating, or post-lactating) females. NLEB home ranges, consisting of maternity, foraging, roosting, and commuting habitat, typically occur within three miles of a documented capture record or a positive identification of NLEB from properly deployed acoustic devices, or within 1.5 miles of a known suitable roost tree.

#### Suitable NLEB roost trees

Suitable NLEB roosts are trees (live, dying, dead, or snag) with a dbh of 3 inches or greater that exhibits any of the following characteristics: exfoliating bark, crevices, cavity, or cracks. Isolated trees are considered suitable habitat when they exhibit the characteristics of a suitable roost tree and are less than 1,000 feet from the next nearest suitable roost tree within a woodlot, or wooded fencerow.

#### NLEB Spring staging/Fall swarming Habitat and Ecology

Suitable spring staging/fall swarming habitat for the NLEB consists of the variety of forested/wooded habitats where they roost, forage, and travel, which is most typically within 5 miles of a hibernaculum. This includes forested patches 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. Isolated trees are considered suitable habitat when they exhibit the characteristics of a suitable roost tree and are less than 1,000 feet from the next nearest suitable roost tree, woodlot, or wooded fencerow. NLEBs typically occupy their spring staging/fall swarming habitat from early April to mid-May and mid- August to mid-November.

#### NLEB Migration

As with many other bat species, NLEBs migrate between their winter hibernacula and summer habitat. The spring migration period likely runs from mid-March to mid-May, with fall migration likely between mid-August and mid-October. Overall, NLEB is not considered to be a long-distance migrant (typically 40-50 miles) although known migratory distances vary greatly between 5 and 168 miles.

#### Potential Threats and Impacts to NLEB

No other threat is as severe and immediate for the NLEB as the disease, white-nose syndrome (WNS). If this disease had not emerged, it is unlikely the NLEB population would be declining so dramatically. Since symptoms were first observed in New York in 2006, WNS has spread rapidly in bat populations from the Northeast to the Midwest and the Southeast. Population numbers of NLEB have declined by 99 percent in the Northeast, which along with Canada, has been considered the core of the species' range. The degree of mortality attributed to WNS in the Midwest and Southeast is currently undetermined. Although there is uncertainty about how

WNS will spread through the remaining portions of the species' range, it is expected to spread throughout the United States. In general, the Service believes that WNS has reduced the redundancy and resiliency of the species.

Although significant NLEB population declines have only been documented due to the spread of WNS, other sources of mortality could further diminish the species' ability to persist as it experiences ongoing dramatic declines. Specifically, declines due to WNS have significantly reduced the number and size of NLEB populations in some areas of its range. This has reduced these populations to the extent that they may be increasingly vulnerable to other stressors that they may have previously had the ability to withstand. These impacts could potentially be seen on two levels. First, individual NLEBs sickened or struggling with infection by WNS may be less able to survive other stressors. Second, NLEB populations impacted by WNS, with smaller numbers and reduced fitness among individuals, may be less able to recover making them more prone to extirpation.

Land-clearing, especially of forested areas, may adversely affect NLEB by killing, injuring or harassing roosting bats, and by removing or reducing the quality of foraging and roosting habitat. Due to the close proximity of the project area to two known NLEB hibernaculum, removal of trees and forested areas within the project area could result in the direct take of roosting NLEB, which could be injured or killed when trees are cut. Forested areas near hibernacula provide important foraging and roosting habitat for NLEB, especially during the fall and spring, when bats are building up their fat reserves prior to and after hibernation. In addition, female maternity colonies and individual male bats may be found in the vicinity of hibernacula throughout the summer months. Further, loss of clean water sources (*e.g.*, fill, degradation of water quality), could reduce NLEB drinking sources, foraging habitat and/or prey.

#### Action Area

The Description of the Project Action Area for Section 020 is documented in the *US 219 Improvement Project, SR 6219 Section 020 (Service Project #2007-2430) ADDENDUM, Revised March 2011* and in the *U.S. Route 219 Improvements Project, S.R. 6219, Section 020, Bat Hibernaculum Investigations Final Report, December 2012* (appended to the December 2012 Biological Assessment Addendum 2). The Action Area was further described in the January 31, 2013, Supplemental Biological Opinion as extending 1500 feet from the proposed edge of pavement, encompassing in excess of 3,600 acres, and includes up to an additional 50 acres of forest removal, as necessary during construction by the contractor, for purposes of disposal of material generated during excavation activities associated with the project. The contractor has identified areas for disposal and provided the Service documentation with respect to location and forest impacts. This information is included in Appendix A of the BAA. Modification to the project, brought about through value engineering during final design, resulted in a slight shift in the Action Area for which additional consultation with the Service occurred. The value engineering did not result in any expansion to the Action Area, as defined in the Supplemental Biological Opinion.

Winter, swarming, roosting and foraging habitats for NLEB occur within the project action area.

## Effects of the action

The effects of the proposed Section 020 project, as described in the Supplemental Biological Opinion of January 31, 2013, on the Indiana bat (*Myotis sodalis*), remain unchanged. Additional forest impacts for borrow and waste, access roads, and stormwater facilities have been consulted on, as detailed in correspondence found in Appendix A of the BAA. The Service concurred that these additional impacts are within the additional 50 acres of allowable forest impacts and are consistent with Term and Condition 1.G of the Supplemental Biological Opinion.

Given similarity in habitat usage, direct and indirect effects of the US 219 Transportation Improvements Project, S.R. 6219, Section 020 on swarming, foraging, and roosting habitat within the project action area for the proposed federally endangered NLEB will be the same as those described for the Indiana bat within the 2013 Supplemental Biological Opinion. As such, the avoidance, minimization, conservation, and mitigation measures as provided within the project description relevant to the Indiana bat are also applicable to the NLEB. Tree removal associated with the entire project was 87% complete at the time of initiation of conferencing/consultation for the NLEB. All tree removal has been, and will continue to be, conducted between November 15 and March 31.

The previously described project activities undertaken (and complete at the time of this writing) associated with mine stabilization necessary to support Pier 4 and Abutment 2, including blasting, over-excavation, and grouting were considered previously in consultation with the Service with respect to effects on the Indiana bat. Since the affected hibernaculum, Portal # 1 (a.k.a. Portal JAZ-3) was not found to be utilized by Indiana bats, these activities were not considered to have a direct effect. Portal # 1 (JAZ-3) is a known NLEB hibernaculum, and as such, these activities may have resulted in a direct effect on this federally proposed species; however, all activities were completed prior to species listing. The effect of blasting, grouting; and over-excavation may have resulted in modifications to air flow, moisture, temperature, or other microclimate requirements. Temperature modifications of a few degrees, potentially resulting from changes in air flow, may make a hibernaculum less suitable. Because bats exposed to WNS are more vulnerable to microclimate and construction disturbance effects, these changes may result in reduced overwintering success or potentially create disturbances that render a hibernaculum unsuitable. Blasting, drilling, and noises from construction activities undertaken while bats are hibernating may result in premature arousal and may result in lethal effects; therefore, all of these construction activities were planned to be completed between April 1 and November 14.

Many activities resulting in direct effect to the species during winter hibernation occurred prior to this consideration of the proposed federally endangered NLEB; however, the project proponents assume that the hibernaculum may still be utilized by bat species in the future. Through construction completion, any required blasting, drilling, pile driving, or similar activities that could disturb hibernating bats will be conducted between April 1 to November 14, when it is expected that bats are not hibernating.

All indirect, interrelated, interdependent, and cumulative effects, as described previously in US 219 Improvement Project, SR 6219 Section 020 (Service Project #2007-2430) ADDENDUM, Revised March 2011; US 219 IMPROVEMENT PROJECT, SR 6219 SECTION 020 (Service Project #2007-2430) ADDENDUM 2, December 2012; and the January 31, 2013 Supplemental Biological Opinion, remain relevant, unchanged, and are incorporated by reference. Primarily, indirect effects will occur as the result of habitat fragmentation and temporal losses as areas, not permanently lost as a result of conversion to highway use, naturally return to forest habitat.

These activities will likely result in both direct and indirect effects to NLEB, as previously discussed in the 2013 Supplemental Biological Opinion. Therefore, based on a review of the project information, including the location of the project area, the anticipated effects on forested habitat, and the avoidance; minimization; and mitigation measures that will be implemented for this project, our conference opinion is that the SR 6219 Section 020 project may adversely affect the NLEB, but will not jeopardize its continued existence.

#### Reasonable and Prudent Measures and Terms and Conditions

Although take of a proposed species is not prohibited under the Act, the reasonable and prudent measures and subsequent non-discretionary terms and conditions in the Biological Opinion were found to avoid, minimize and mitigate impacts on the Indiana bat. In as much as Indiana Bat and NLEB utilize essentially the same habitats within the project area and share similar natural history, the Service believes the reasonable and prudent measures and subsequent terms and conditions in the 2007 Biological Opinion, amended in 2011, and subsequent 2013 Supplemental Biological Opinion, are also applicable to NLEB as well. Here, the Service is reiterating the addition of 1.G. which carries out the reasonable and prudent measures in the Biological Opinion.

1.G. The project proponents will minimize adverse effects on Indiana bats and NLEBs through the implemented of conservation measures, as detailed below.

- a. Implement project conservation measures and mitigation measures, as detailed in Addendum 2 to the S.R. 6219, Section 20 biological assessment (pages 13-15).
- b. During the bidding process, prospective project contractors will be notified regarding the presence of endangered species in the project area and the special provisions necessary to protect them. The successful contractor(s) will be instructed on the importance of the natural resources in the project area and the need to ensure proper implementation of the tree-cutting restrictions, erosion and sedimentation controls, and spill avoidance/remediation practices. The following conditions (language) will be included in all construction and demolition contracts awarded for project implementation:
  - i. Endangered species are present in the project area and there is a risk of unauthorized take (Endangered Species Act section 9 violation) if the Terms and Conditions of the Service's 2007 Biological Opinion (as amended in 2011 and 2013) are not closely followed.

- ii. Include language in the construction contract specifying that the contractor will implement a seasonal restriction on tree cutting – specifically noting that all tree cutting will occur between November 15 to March 31.
  - iii. Develop and implement a Conservation District Approved erosion and sedimentation control plan to limit discharge of all sources of project-related sedimentation and erosion, including, but not limited to, construction of roads and access roads, roadway approaches, staging areas, etc. to preserve water quality.
  - iv. As proposed in the biological assessment, preserve a 50 foot riparian corridor on streams in the project area including an unnamed Casselman River tributary, Buffalo Creek, and Swamp Creek.
  - v. The Service will be notified immediately of any failures of erosion and sedimentation control measures or spills of hazardous materials.
  - vi. No project-related or project-generated materials, waste, or fill will be deposited in areas that would result in forest clearing unless minimized and offset through the conservation of existing, currently unprotected forest via an in-lieu-fee program that conserves forest habitat for Indiana bats and NLEB (incidentally) as described Term and Condition 1.G.d.
  - vii. No project-related or project-generated materials, waste, or fill will be deposited in areas that would result in sedimentation to any streams in the action area or areas providing habitat to Indiana bats or NLEB.
- c. As noted in PennDOT’s Addendum 2 to the S.R. 6219, Section 20 Biological Assessment, “PennDOT will contribute to the Indiana Bat Conservation Fund for the 270 acres of impacted forest area.” PennDOT provided the Service with a *Calculation Sheet for Indiana Bat Habitat Compensation* which uses a combination of 1:1 and 1.5:1 mitigation ratios, resulting in 369.36 compensation acres for 270 acres of affected forest habitat. At the Somerset County rate of \$2,247/acre, PennDOT will contribute \$829,951.92 to the Indiana Bat Conservation Fund (IBCF). Documentation of the IBCF deposit will be provided to the Service within 10 days of the initiation of tree cutting associated with the S.R. 6219, Section 20 project.
- d. As noted in PennDOT’s Addendum 2 to the S.R. 6219, Section 20 Biological Assessment, the construction contractor may impact up to 50 acres of forest in the project area due to use of waste and borrow sites. In the Biological Assessment, PennDOT has committed the contractor to compensate for impacts to forest habitat. To ensure this occurs, PennDOT will implement the measures:
- i. Include language in the construction contract specifying that the contractor will 1) minimize impacts to forests, woodlots and trees when selecting and using waste and borrow sites; 2) report to PennDOT and the Service the acres

- of forest, woodlots and trees to be affected by waste and borrow sites; 3) in coordination with the Service, compensate for impacts to forests, woodlots and trees using the *Calculation Sheet for Indiana Bat Habitat Compensation* (available from the Service's Pennsylvania Field Office); and 4) provide documentation of the IBCF deposit to the Service and PennDOT within 10 days of the initiation of tree cutting associated with the S.R. 6219, Section 20 project.
- ii. Include language in the construction contract specifying that the contractor will implement a seasonal restriction on tree cutting – specifically noting that all tree cutting will occur between November 15 and March 31.
  - iii. Provide the Service with contact information for the contractor responsible for waste and borrow sites.
  - iv. Ensure the contractor fulfills the terms of the contract specific to reporting and compensating for forest impacts.
- e. In order to protect the NLEB hibernacula from degradation and micro-climate alteration due to forest loss near Portal #1 (Portal JAZ-3).
- i. Do not remove trees within 175 feet of the mine opening.
  - ii. To the greatest extent practicable, avoid all additional tree removal between 175 and 1,000 feet from Portal #1. Unavoidable tree cutting will only occur between November 15 and March 31.
  - iii. In order to monitor take, inform the Service of any additional tree removal within 1,000 feet of Portal #1 within 48 hours of removal.
- f. No additional blasting, removal of mine passages, or grouting should occur within 1,500 feet of the hibernaculum entrances (mine portal or air shaft) or at the proposed Buffalo Creek bridge structures between November 15 and March 31.
- g. In order to verify the project proponent's assumption that construction activities associated with the SR 6219 Section 020 project will not adversely affect the identified NLEB hibernacula, complete fall trapping of both the mine portal and air shaft entrances to the hibernacula be conducted each fall during construction and for one year post-construction. Trapping should be in accordance to PGC recommendations of January 10, 2103.

### **Conservation Recommendations**

Conservation recommendations are the Services' non-binding suggestions resulting from formal or informal consultation that: (1) identify discretionary measures the project proponents can take to minimize or avoid the adverse effects of a proposed action on listed or proposed species,

candidate species, or to designated or proposed critical habitat; (2) identify studies, monitoring, or research to develop new information on listed, proposed or candidate species, or to designated or proposed critical habitat; and (3) include suggestions on how the Service can assist species conservation, as part of their action and in furtherance of their authorities under section 7(a)(1) of the Act [50 CFR §402.02].

During hibernacula trapping studies two significant bat hibernacula were documented. These mine portals represent significant winter habitat for bats that range widely during other seasons. Included are two additional bat species of federal concern, the little brown bat and eastern small-footed bat. These species have also experienced significant population declines since the white-nose syndrome epidemic.

Species of concern are species that may be elevated to candidate or listed status pending further review by the Service. Candidate species are species for which the Service currently has substantial information on file to support the appropriateness of proposing to list as threatened or endangered. Both candidate species and species of concern are known to be facing various threats, and have usually suffered substantial population declines and/or habitat loss. Although these species receive no regulatory protection under the federal Endangered Species Act, the Service strongly encourages federal agencies and other planners to consider these species when planning and implementing their projects. Efforts to conserve these species now may preclude the need to list them as endangered or threatened under the Act in the future.

The Service has identified the following actions that, if undertaken by PennDOT and/or the FHWA, would further the conservation and assist in the recovery of the Indiana bat and other bat species of concern:

- Work with the Service to develop guidelines for addressing Indiana bat and NLEB issues associated with roadway projects in Pennsylvania.
- Develop and participate in educational and outreach efforts on Indiana bats and NLEB.
- Develop conservation banking as an option to protect essential Indiana bat and NLEB foraging, roosting, and hibernation habitats.

To be kept informed of actions minimizing or avoiding adverse effects, or benefiting listed species, candidate species, species of concern, or their habitats, the Service requests notification of the implementation of the conservation recommendations that are carried out.

#### Reinitiation notice

This concludes formal conference on the actions outlined in the information presented with the Federal Highway Administration's July 18, 2014, request for initiation of formal conference. If the NLEB becomes federally listed under the Act, this conference opinion can be converted to a may affect, [DECISION ERROR CORRECTED] and is likely to adversely affect [DECISION ERROR CORRECTED], decision. If so, the reinitiation triggers in the 2013 Supplemental Biological Opinion would also be applicable to NLEB.

A complete administrative record of this consultation is on file in this office. *Please use the above-referenced Service project tracking number in any future correspondence regarding this project.*

If you have any questions regarding this matter, please contact Bob Anderson of my staff at 814-234-4090.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lora L. Zimmerman".

Lora L. Zimmerman  
Field Office Supervisor

cc:  
DEP  
USACE  
PGC  
PennDOT

