



# 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 15, 2014

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

RE: Service Project #2008-0251

Dear Mr. Lynch:

This letter responds to your July 17, 2014, request for formal conference on the proposed northern long-eared bat (NLEB; *Myotis septentrionalis*) for the South Valley Parkway (SVP) Project (S.R. 3046, Section 301), located in Hanover and Newport Townships, Luzerne County, Pennsylvania. This conference opinion is based on information you provided in your biological assessment addendum (dated July 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.*).

On February 23, 2012, FHWA and PennDOT submitted a Biological Assessment to address the potential effects of the SVP Project on the Indiana Bat. On October 12, 2012, the Fish and Wildlife Service (Service) issued its Biological Opinion regarding the Indiana Bat and the SVP Project. In the Biological Opinion, the Service concluded that the SVP project would not likely jeopardize the continued existence of the species. PennDOT proposes the construction of the SVP Project through the southern portion of the Wyoming Valley to alleviate safety and congestion problems associated with local and commuter traffic along Middle Road (SR 2008) in the villages of Askam and Lower Askam in Hanover Township, Luzerne County. Initial Threatened and Endangered Species coordination conducted for the project identified a potential conflict for the NLEB. Consultation with the Service was initiated in 2001 and has extended through 2014.

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.

The proposed project involves reconfiguration of the existing Pennsylvania Route 29, Exit 2 interchange, construction of a two-lane roadway through forest and previously coal-mined land north of Middle Road and reconnection with Middle Road east of the Kosciusko Street intersection. Three roundabouts are proposed along Middle Road at intersections with Kosciusko Street, Espy Street, and Prospect Street. The total project area is approximately 3.6 miles long of which 2.7 miles are on new alignment.

To avoid killing or injuring Indiana bats and NLEB that may be present, PennDOT and the FHWA have committed to conducting all tree clearing activities required for the proposed project between November 16 and March 31, when bats are hibernating, and phasing tree clearing where possible. This seasonal restriction on tree cutting applies to trees that are greater than or equal to 3 inches in dbh in order to avoid impacts to both Indiana bat and the NLEB. Where possible, PennDOT and the FHWA will retain dead and dying trees and large diameter trees (greater than 12 inches dbh) to serve as roost trees for bats.

To avoid harming or harassing bats on the landscape during construction, PennDOT and the FHWA have also committed to:

- limiting noise disturbance by conducting pile driving during daylight hours only so that continuous disturbance does not occur.
- strictly adhering to a project-specific Pollution Prevention and Contingency Plan for each construction section in order to ensure hazardous materials do not contaminate soils, waterways and wetlands.
- fueling and servicing equipment at least 300 feet away from streambeds, drainages, and sinkhole, karst or mine features (although we note that the project area was surveyed and no cave or mine openings were reported to us).

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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.

A complete description of the proposed action can be found in the Biological Opinion for this project.

### 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 predominant land cover across the SVP project area is characterized Red Oak-Mixed Hardwood and Red Maple Terrestrial Forests. Potential NLEB habitat was evaluated and identified based upon the presence of preferred forest type, presence of flyways, distance from water sources, and slope. Sixteen different potential habitat areas encompassing 90 acres are located within the limits of the SVP project area. Two mist netting surveys were completed for the project in August 2008 and August 2010. Ten NLEB were captured during the mist net survey efforts; 9 in 2008 and 1 in 2010. The SVP project area is located within the 5-mile radius of two known NLEB hibernacula, including one within State Game Lands (SGL) #207, approximately 2 miles south of the project area, and a second located approximately 4.8 miles west-southwest of the project. There is no Designated or Proposed Critical Habitats within or adjacent to the proposed SVP Project. The best available scientific and commercial data combined with desktop resources and best professional judgment were used in developing an assessment of NLEB habitat and habitat use in the project action area.

Activities associated with the construction and operation of the SVP project could affect the bats that hibernate within two hibernacula sites. Therefore, for the purpose of this conference

opinion, the Action Area, or the area within which activity associated with the action may affect the NLEB, is defined as extending an average of 990 feet on each side of pavement for the proposed SVP project as was determined in the 2012 Biological Opinion. NLEBs use habitat within the Action Area for swarming, mating, and foraging during spring, summer and fall seasons. The Action Area totals 964.7 acres in size. Within the Action Area, the SVP Project area consists of 215 acres including 90 acres of potential NLEB and Indiana Bat Habitat.

### Effects of the action

In as much as Indiana Bat and NLEB utilize essentially the same habitats within the project area, an evaluation of effects for the NLEB is essentially the same as that previously determined, in consultation with the Service, for the Indiana Bat. Conservation measures, including avoidance, minimization and offsetting measures as established for the Indiana Bat are applicable to the NLEB as well.

Time of year restrictions for the project construction would be implemented for tree removal from November 15 to March 31 to avoid direct lethal take of NLEBs. Non-lethal take/harm/harass may occur due to loss of habitat which requires individuals to find alternative foraging areas. The SVP Project area encompasses 215 acres including 90 acres of potential NLEB forest habitat, including 88 acres of permanent impacts and 2 acres of temporary impacts. The loss of 90 acres of potential bat habitat constitutes less than 1 percent of the 5-mile radius and total forested habitat within the 5-mile radius of the Glen Lyon and SGL 207 Hibernacula. There are large areas of forested and protected lands (45 square miles) within the 5-mile radius for the SGL 207 hibernacula, including substantial areas within the three sub-watersheds and along the Susquehanna River near the SVP Project to serve as potential habitat for the NLEB. Additionally, in consideration of the combined 5-mile radii of the Glen Lyon and SGL Hibernacula (approximately 110 square miles), the SVP would have an even smaller impact with respect to the overall range of the combined action area.

The construction of the SVP involves several components that would extend over three years, including: clearing and grubbing, staging, access, grading-earth work, rock excavation-blasting, erosion and sedimentation, stream crossings, and wetland fills. These activities will likely result in both direct and indirect effects to NLEB as previously discussed in the 2012 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 SVP project may adversely affect the NLEB, but will not jeopardize its continued existence.

### Reasonable and Prudent Measures

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 2012 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 USFWS believes the reasonable and prudent measures and subsequent terms and conditions, are also applicable to NLEB as well.

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the Indiana bat and NLEB:

- I. Avoid the take of roosting Indiana bats and NLEB.
- II. Minimize the harm resulting from forested habitat loss in the action area through direct permanent protection of existing forest habitat or use the Indiana Bat Conservation Fund.
- III. Monitor and report take of Indiana bats and NLEBs.

#### Terms and conditions

Although take of a proposed species is not prohibited under the Act, the non-discretionary terms and conditions already established in the 2012 Biological Opinion to avoid, minimize and mitigate impacts on the Indiana bat are also applicable to NLEB and are as follows:

- I. Fully implement all project avoidance and minimization measures (see pages 37 of the original Biological Assessment).
  - a. To avoid killing or injuring Indiana bats and NLEB, all trees that are greater than or equal to 3 inches in diameter at breast height (dbh) shall be cut only between November 15 and March 31. This includes tree-cutting necessary for site preparation, road construction, road maintenance, and utility relocation.
  - b. No project-related or project-generated materials, waste, or fill will be deposited in areas that would result in additional forest clearing, or sedimentation to any streams in the action area or areas providing habitat to Indiana bats and NLEB.
  - c. Inspect any buildings to be removed (demolished) to determine whether they are used by bats for roosting. Identify which species are using the building(s), as well as the total number of bats using the building. The discovery of an Indiana bat or NLEB roost structure that may require demolition represents new information not previously considered in this opinion; therefore, should this occur, it will be necessary to reinitiate consultation with the Service to determine what measures are necessary to reduce or avoid potential take.
  - d. 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.
    - i. The following conditions (language) will be included in all construction and demolition contracts awarded for project implementation:
      1. Endangered species are present in the project area and there is a risk of take (Endangered Species Act section 9 violation) if the

Terms and Conditions of the Service's biological opinion are not closely followed.

2. Any trees greater than or equal to 3 inches diameter at breast height (dbh) will only be cut from November 15 to March 31.
  3. Best Management Practices for erosion and sedimentation control will be in place before, during, and after any work is conducted.
  4. The Service will be notified immediately of any failures of erosion and sedimentation control measures or spills of hazardous materials.
  5. No project-related or project-generated materials, waste, or fill will be deposited in areas that would result in forest clearing or sedimentation to any streams in the action area or areas providing habitat to Indiana bats and NLEB.
- ii. Evidence will be provided to the Service that Term and Condition I(d)(i) has been included in construction contracts prior to the initiation of construction.

II. For preserved and reforested land to be beneficial to Indiana bats and NLEB and partially offset the adverse effects of the project, long-term protection and management must be consistent with Indiana bat forest conservation and management goals. Conditions incorporated into the Indiana Bat Conservation Fund require that acquired lands meet this objective. Any on-site or off-site forest conservation must meet the conditions described below. The current mitigation ratio is 1:1 to partially offset the loss of forest associated with P4 hibernacula. This assumes the 98 acres of conservation acreage is already forested, as the 98 acres of habitat affected by the project is forested. Due to the significant time-lag between forest loss and the eventual maturation of re-forested areas into suitable roosting and foraging habitat, the mitigation ratio for affected forest habitat to re-forested habitat is 1:5.

- a. FHWA and/or PennDOT will provide a bat conservation plan to the Service for review and concurrence at least three months prior to the start of any proposed tree cutting in the project area to ensure the resulting effects are consistent with those disclosed in the biological assessments and evaluated in this opinion.
- b. Prior to forest removal by either the project proponents or current landholders, use the IBCF (Appendix A in the Biological Opinion) or permanently protect forest. Documentation that a contribution to IBCF has been made must be provided to the action agencies and the Service prior to issuance of state and federal permits, and prior to any tree cutting. If forest habitat is proposed for conservation, provide the Service with information about the parcel(s), including the parcel location, amount of forest cover, name of the entity to whom the parcel will be transferred and entrusted for permanent protection, mechanism to ensure the parcel will be permanently protected and conserved for the primary benefit of the

Indiana bat and NLEB (incidentally), and the anticipated date of land transfer. The conservation acreage, proposed land holder, and protection mechanism are subject to Service review and approval.

- c. In the event that on-site forest restoration is proposed in the bat conservation plan, the protected land must provide for the long-term needs of the Indiana bat and NLEB.
  - i. The conservation acreage will be placed in the ownership of a conservation entity (*e.g.*, Pennsylvania Game Commission, conservation organization or PennDOT in areas of retained right-of-way) that is both able and willing to protect and manage the habitat in perpetuity for Indiana bats and NLEB. The recipient (proposed owner) of the conservation acreage is subject to Service review and approval. Conservation lands will be deed-restricted to ensure the landowner holds, protects, maintains, and manages the lands in perpetuity for the primary conservation benefit of Indiana bat and NLEB, with any habitat management subject to a Service-approved management plan.
  - ii. Reforestation will occur by replanting with at least six different tree species listed in Appendix B of the 2012 Biological Opinion. At least four “exfoliating bark” tree species will be planted and equal at least 40% of the stems per acre. No more than 20% of any one species will be included in the planting mixture, and no more than 50 stems per acre of black locust will be planted. Success will be measured as 400 live woody stems per acre. Forest restoration will be implemented in accordance with the methods detailed in the Forest Reclamation Advisories published by the Appalachian Regional Reforestation Initiative (<http://arri.osmre.gov/FRA.htm>). Following reforestation, the project proponents will manage the property consistent with the goal of conserving Indiana bat and NLEB roosting and foraging habitat.
  - iii. The conservation acreage, including its location and quality, are subject to review and approval by the Service’s Pennsylvania Field Office.
  - iv. The Service and Pennsylvania Game Commission, and their representatives, will have access to conservation lands for future research and monitoring.
- III. Monitor and report to the Service construction activities no less than monthly starting with initial tree removal and grubbing activities to detect compliance with the appropriate best management practices and conservation commitments.
  - a. An Environmental Monitor will be provided with appropriate authority and professional experience to ensure compliance with relevant conservation commitments (particularly regarding areas of tree removal) and other applicable environmental rules and regulations. Monitor and report acreage of forest impacts. An anticipated or actual exceedance of forest impacts is a trigger for re-initiation of consultation.

- b. Any dead Indiana bat or NLEB located in the action area will be reported the Service's Pennsylvania Field Office (315 South Allen Street, Suite 322, State College, PA 16801; telephone 814-234-4090) and Region 5 Division of Law Enforcement (300 Westgate Center Drive, Hadley, MA 01035-9589; telephone 413-253-8343) within 48 hours. Notification must include the date, time, and location of the carcass, and any other pertinent information. Indiana bats and NLEB that are accidentally killed, or that are moribund, are to be preserved in a cold location until properly identified (date of collection, complete scientific and common name, latitude and longitude of collection site, description of collection site). Specimens shall be transferred to the Service or a Service-approved facility.

The reasonable and prudent measures, and their implementing terms and conditions are designed to minimize the impact of incidental take that might otherwise result from the proposed action.

#### Conservation recommendations

Section 7(a)(1) of the Endangered Species Act directs federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

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 NLEB:

1. Work with the Service to develop guidelines for addressing Indiana bat and NLEB issues associated with roadway projects in Pennsylvania.
2. Develop and participate in educational and outreach efforts on Indiana bats and NLEBs.
3. 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 or their habitats, the Service requests notification of the implementation of the conservation recommendations carried out.

#### Reinitiation notice

This concludes formal conference on the actions outlined in the information presented with the Federal Highway Administration's July 17, 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, but not likely to adversely affect, decision. If so, the reinitiation triggers in the 2012 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 black ink, appearing to read "Lora L. Zimmerman", with a long horizontal flourish extending to the right.

Lora L. Zimmerman  
Field Office Supervisor

cc:  
DEP  
USACE  
PGC  
PennDOT

