

# United States Department of the Interior



#### FISH AND WILDLIFE SERVICE

5600 American Blvd West, Suite 990 Bloomington, Minnesota 55437-1458

IN REPLY REFER TO:

FWS/R3/ES-ARD/DTS 078395

Ms. Emily Biondi Director, Office of Project Development and Environmental Review Federal Highway Administration 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Ms. Biondi,

The U.S. Fish and Wildlife Service (Service) has received your request dated December 12, 2022, to reinitiate consultation on projects within the scope of the Service's February 5, 2018, Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and Northern Long-eared bat (BO)<sup>1</sup>. As stated in the transportation agencies' original programmatic biological assessment in 2016, the primary objectives of the consultation have been to streamline consultation process and to bring about better conservation outcomes for the two bat species.

Reinitiation was requested to address changes in the take prohibitions that apply to the northern long-eared bat (NLEB), as explained in the next two paragraphs. This reinitiation addresses future project-specific actions that will be implemented within the scope of the 2018 programmatic BO, as well as 350 actions that have already undergone consultation on the NLEB under this programmatic consultation, but whose activities have not yet been implemented.

The Service listed the NLEB as a threatened species on April 2, 2015 (80 FR 17974) and issued a species-specific 4(d) rule on January 14, 2016 (81 FR 1900). Under the 4(d) rule, incidental take of the NLEB was not prohibited (81 FR 1900, 50 CFR 17) except in certain situations described in the rule. Your request is in response to the reclassification of the NLEB as an endangered species on November 30, 2022 (87 FR 73488) that has resulted in a change to the take prohibitions that apply to the species, which become effective on March 31, 2023.

The 350 actions proposed by the transportation agencies and previously addressed by the 2018 BO specifically excluded any actions that would have resulted in incidental take that would have

 $<sup>^1\</sup> https://www.fws.gov/media/programmatic-biological-opinion-transportation-projects-range-indiana-bat-and-northern-long$ 

been prohibited under the 4(d) rule. With the promulgation of the new listing rule for the NLEB, however, the incidental take expected to occur because of these actions would now be prohibited. Therefore, in response to your request for reinitiation, the Service is providing an Incidental Take Statement (ITS) with terms and conditions to ensure that the incidental take of the NLEB that occurs as a result of the 350 actions previously addresses by the 2018 BO, as well as future proposed actions implemented within the scope of the amended 2018 programmatic BO are not prohibited when the new listing rule becomes effective on March 31, 2023. This incidental take will not be prohibited because it is not likely to jeopardize the continued existence of the NLEB and because the transportation agencies will implement the terms and conditions of the ITS.

This enclosed document responds to your request and constitutes an amendment to the Service's 2018 programmatic BO for the 350 projects identified in the table below, as well as future proposed actions within its scope. The amended 2018 programmatic BO includes an updated Status of the Species section for NLEB, updated jeopardy analysis for NLEB (conclusion section in amendment below), a combined ITS for the Indiana bat and NLEB, and a Reinitiation Notice. The proposed action for each of these 350 projects and for future projects implemented under the amended 2018 programmatic BO remains unchanged from the initial section 7 consultation as described in the 2016 biological assessment and the 2018 programmatic BO. The projects are within the scope of the programmatic action as described in the 2018 BO, including all applicable avoidance and minimization measures (AMMs²).

It is the Service's Opinion that the action, as proposed, is not likely to jeopardize the continued existence of the NLEB. This concludes consultation on the identified list of projects (350) that are likely to adversely affect the NLEB, but whose activities have not yet been implemented, and future implementation of the Program within the scope of the Service's amended 2018 programmatic BO No further correspondence is necessary for project reinitiation except for conditions outlined in the Reinitiation Section of the enclosed amendment to the 2018 PBO.

For further information, please contact Catherine Liller, FWS National Transportation Liaison at Catherine Liller@fws.gov or Brian Yanchik, FHWA Lead Ecologist at Brian.Yanchik@dot.gov.

 $<sup>^2\</sup> https://www.fws.gov/sites/default/files/documents/appendix-c-avoidance-and-minimization-measures-february-2018.pdf$ 

## **SIGNATURE PAGE**

Lori H. Nordstrom Date

Assistant Regional Director for Ecological Services, Region 3

## Amendment to the February 5, 2018, Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana bat and Northern Long-eared bat

**STATUS OF THE SPECIES AND CRITICAL HABITAT** – NLEB Only [no change to the Indiana bat *Status of the Species and Critical Habitat* sections in 2018 BO]

Per ESA section 7 regulations (50 CFR 402.14(g)(2)), it is the Service's responsibility to "evaluate the current status of the listed species or critical habitat" during formal consultation. Below, we provide an overview of the biology and conservation needs of the NLEB and summarize relevant information regarding the status and distribution of the species that is pertinent to the "Effects of the Action" section (e.g., a description of the annual life cycle, spring emergence habitat, fall swarming habitat).

#### Northern Long-Eared Bat Conservation Needs

The Service listed the NLEB as a threatened species on April 2, 2015 (80 FR 17974) and issued a species-specific 4(d) rule on January 14, 2016 (81 FR 1900). On April 27, 2016, the Service determined that it was not prudent to designate critical habitat for the NLEB (81 FR 24707). The Service reclassified the NLEB as an endangered species on November 30, 2022, effective on March 31, 2023, and reaffirmed our determination that it is not prudent to designate critical habitat for the NLEB.

To assess the status of the species, it is helpful to understand the species' conservation needs which are generally described in terms of reproduction, numbers, and distribution (RND). The Service frequently characterizes RND for a given species via the conservation principles of resiliency (ability of species/populations to withstand stochastic events which is measured in metrics such as numbers and growth rates), redundancy (ability of a species to withstand catastrophic events which is measured in metrics such as number of populations and their distribution), and representation (variation/ability of a species to adapt to changing conditions which may include behavioral, morphological, genetics, or other variation) (collectively known as the 3 Rs) (Shaffer et al. 2002, Wolf et al. 2015, Smith et al. 2018).

The following is a summary of NLEB needs from the Species Status Assessment Report (Service 2022). For survival and reproduction at the individual level, the NLEB requires access to food and water resources when not hibernating, along with suitable habitat throughout its annual life cycle. During the spring, summer and fall seasons, NLEB requires suitable foraging, roosting, traveling (between summer and winter habitat) and swarming habitat with appropriate conditions for maternity colony members; during the winter, NLEB requires habitat with suitable conditions for prolonged bouts of torpor. For NLEB populations to be healthy, they require a population size and growth rate sufficient to withstand natural environmental fluctuations, habitat of sufficient quantity and quality to support all life stages, gene flow among populations, and a matrix of interconnected habitats that support spring migration, summer maternity colony formation, fall swarming, and winter hibernation.

At the species level, NLEB viability requires having a sufficient number and distribution of healthy populations to ensure NLEB can withstand annual environmental and demographic variation (resiliency), catastrophes (redundancy), and novel or extraordinary changes in its environment (representation).

#### Distribution

#### Northern Long-eared bat

The current range of the NLEB includes 37 States, the District of Columbia, and 13 Canadian Provinces (Figure 4). In the SSA<sup>3</sup>, we have also identified five representation units (RPUs): Eastern Hardwoods, Southeast, Midwest, Subarctic, and East Coast.



Range of the NLEB3<sup>3</sup> (Service 2022b).

Prior to the documentation of WNS, NLEBs were consistently caught during summer mist-net surveys and detected during acoustic surveys in the eastern U.S. (80 FR 17974) and were commonly encountered, especially during swarming and hibernation in eastern Canada and New England (Caceres and Barclay 2000). However, throughout most of the species' range it was patchily distributed and was historically less common in the southern and western portions of the range than in the northern portion of the range (Amelon and Burhans 2006).

<sup>&</sup>lt;sup>3</sup> U.S. Fish and Wildlife Service (Service). 2022. Species Status Assessment Report for the Northern longeared bat (*Myotis septentrionalis*) Version 1.1. Bloomington, MN.

The NLEB continues to be distributed across much of its historical range, but there are many gaps within the range where bats are no longer detected or captured, and in other areas, their occurrence is sparse. Since WNS was documented, multiple hibernacula have no reported northern long-eared bats. Frick et al. (2015) documented the local extinction of northern long-eared bats from 69% of sites included in their analyses (468 sites where WNS had been present for at least 4 years in VT, NY, PA, MD, WV, and VA).

The following is a summary from the NLEB Species Status Assessment (SSA) Report (Service 2022a). Although there are countless stressors affecting the NLEB, the primary factor influencing the viability of the NLEB is WNS. Other key factors that influence the NLEB's viability include wind energy mortality, effects from climate change, and habitat loss. Available evidence, including both winter and summer data, indicates that NLEB abundance has and will continue to decline substantially over the next 10 years under current demographic conditions. Winter abundance (from known hibernacula) has declined range-wide (49%) and across most RPUs (0−90%). In addition, the number of extant winter colonies declined range-wide (81%) and across all RPUs (40−88%). There has also been a noticeable shift towards smaller colony sizes, with a 96−100% decline in the number of large hibernacula (≥100 individuals). Declining trends in abundance and occurrence are also evident across much of NLEB's summer range. Range-wide summer occupancy declined by 80% from 2010−2019. Data collected from mobile acoustic transects found a 79% decline in range-wide relative abundance from 2009−2019 and summer mist-net captures declined by 43−77% compared to pre-WNS capture rates. Declines are anticipated to continue.

In conclusion, multiple data sources and analyses indicate downward trends in NLEB population abundance and distribution over the last 14 years. Consequently, we found no evidence to suggest that this downward trend will change soon. NLEB abundance (winter and summer), number of occupied hibernacula, spatial extent, probability of persistence, and summer habitat occupancy across the range and within all RPUs are decreasing. Since the arrival of WNS, NLEB abundance has steeply declined. At these low population sizes, colonies are vulnerable to extirpation from stochastic events. Furthermore, NLEB's ability to recover from these low abundances is limited given their low reproduction output (1 pup per year). Therefore, NLEB's resiliency is greatly compromised in its current condition and is projected to decline under future scenarios. Additionally, because NLEB's abundance and spatial extent are projected to decline dramatically, NLEB will also become more vulnerable to catastrophic events. NLEB's representation has also been reduced. The steep and continued declines in abundance have likely led to reductions in genetic diversity, and thereby reduced NLEB adaptive capacity. Further, the projected widespread reduction in the distribution of hibernacula will lead to losses in the diversity of environments and climatic conditions occupied, which will impede natural selection and further limit NLEB's ability to adapt. Moreover, at its current low abundance, loss of genetic diversity via genetic drift will likely accelerate. Consequently, limiting natural selection processes and decreasing genetic diversity will further lessen NLEB's ability to adapt to novel changes (currently ongoing as well as future changes) and exacerbate declines due to continued exposure to WNS, mortality from wind turbines, and impacts associated with habitat loss and climate change. Thus, even without further WNS spread and additional wind energy development, NLEB's viability is likely to rapidly decline over the next 10 years. Given the projected low abundance and the few numbers and restricted distribution of winter colonies, NLEB's

currently impaired ability to withstand stochasticity, catastrophic events, and novel changes will worsen under the range of plausible future scenarios.

#### Critical Habitat

On April 27, 2016, the Service determined that it is not prudent to designate critical habitat for the NLEB (81 FR 24707). The Service reclassified the NLEB as an endangered species on November 30, 2022, effective on March 31, 2023. The Service reaffirmed our determination that it is not prudent to designate critical habitat for the NLEB.

**Life History and Biology** [no change to 2018 BO]

## **Factors Affecting the Species Needs**

## Northern Long-eared bat

The following paragraph is a summary from the NLEB SSA Report (Service 2022a). Unquestionably, WNS is the primary driver (or influence) that has led to the species' current condition and is predicted to continue to be the primary influence into the future. Wind energy related mortality is projected to be a more impactful influence in the future as annual mortality is projected to increase. Incidences of climatic extremes (e.g., drought, excessive summer precipitation) will likely increase, leading to increased NLEB mortality and reduced reproductive success. Although we consider habitat loss pervasive across the NLEB range, impacts to NLEB and its habitat are often realized at the individual or colony level. Also, loss of hibernation sites (or modifications such that the site is no longer suitable) can result in impacts to winter colonies.

While forest habitat is not generally considered a limited resource across the range of the northern long-eared bat, the species' strong site fidelity contributes to the importance of forest where the species occurs. In other words, the impacts are associated with the losses of forest within the home range of northern long-eared bat colonies. Further, where northern long-eared bat colonies remain after WNS has been present on the landscape for over 10 years magnifies the importance of that occupied habitat for the remaining survivors of WNS. So now, more than ever, identification and protection of maternity sites is imperative for even the short-term survival and eventual recovery of the species.

#### Northern Long-eared Bat Summary

In summary, the range-wide status of the species is declining. The primary threat of WNS continues to spread and effects are expected to continue across the range for years to come as are other ongoing threats (e.g., climate change, wind turbines) to the bats and their habitats. Given the species' limited reproductive potential, populations are not likely to rebound in the near term. In short, over the past decade WNS has increased the species' risk of extinction as the resiliency, redundancy, and representation of its remaining populations have declined and are expected to continue to decline.

#### **Environmental Baseline**

In accordance with 50 CFR 402.02, the environmental baseline refers to the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.

Because of the programmatic nature and geographic extent of this consultation, the environmental baseline is considered the same as the range-wide status of the species and critical habitat.

**CONCLUSION** – NLEB Only [no change to the Indiana bat *Conclusion* section in 2018 BO]

#### **Northern Long-eared Bat**

In Section 5 of this BO, we identified the stressors associated with the various types of transportation activities included in the proposed action, and analyzed how bat individuals would respond if exposed to these stressors. From this analysis, we determined that:

- 1. Projects that are proposed within 0.5 mile of hibernacula are limited to types with stressors that should not result in any response from NLEB and are not likely to modify the environment of the hibernacula.
- 2. Projects that are proposed beyond 0.5 mile of hibernacula will cause various stressors for which exposure may cause adverse NLEB responses.
- 3. The proposed AMMs will frequently avoid exposure or reduce adverse responses.
- 4. The proposed AMMs protect known NLEB maternity roosts.
- 5. In the range of the Indiana bat, proposed AMMs for the Indiana bat will also frequently avoid exposure or reduce adverse responses for the NLEB.
- 6. The proposed compensation measures in the range of the Indiana bat will also likely benefit NLEB.

#### Tree Removal

When NLEBs use a project action area for active-season habitat, tree removal is the most likely stressor to cause adverse responses.

However, not all tree removal will cause take of individuals for the following reasons:

- The acreage estimates were based on trees cleared, but not all the trees cleared are suitable habitat.
- FHWA estimates that 90% <sup>4</sup> of the projects will implement inactive season tree clearing, which reduces the impacts to NLEBs by avoiding direct effects to the species.
- Transportation Agencies will conduct bat surveys that indicate bats are not likely present.
- Transportation Agencies will assume species presence in suitable habitat and apply conservation measures in such areas, when in fact the habitat may not be occupied by the species at the time of project construction. As such, not all habitat removal will cause adverse effects to the NLEB.
- It is reasonably likely that many projects will involve less than 2 acres<sup>5</sup> of tree removal in a widely dispersed arrangement across the range of the NLEB, which includes 282,351,352 acres of suitable habitat<sup>6</sup> range-wide.
- Based upon projects that used this consultation from 2017-2021, we have estimated clearing of approximately 743 acres of NLEB habitat resulted in take of NLEB. This is total acreage (not acres/year).
- There is no removal of documented NLEB maternity roosts or trees within 150 ft. [45.7 m] of the roosts between June 1 and July 31. Although we recognize that a small percentage of roosts are currently documented, AMMs<sup>7</sup> (see Section 2.9 of the BO) included in the proposed action will often prevent direct injury and mortality when undocumented NLEBs may be present in the project area.

The Service anticipates incidental take of a small number of NLEBs per LAA project resulting from tree removal under this programmatic consultation. Incidental take from tree removal during the active season (excluding May to August) 0 to 300 ft from road surface/rail surface in documented or assumed NLEB habitat is expected to be in the form of harm or kill. Tree removal during the inactive season 100 to 300 ft from road/rail surface in documented NLEB habitat may result in harm to returning individuals that will be required to find each other and sufficient suitable roosts. We anticipate harm from inactive season tree removal to a small percentage of NLEBs associated with a maternity colony whose members travel, roost, and forage within the project action area during the active season. Such harm is limited to the cleared acreage identified for each project (limited to less than 20 acres of forest per project per 5-mile segment) and the associated degradation of remaining forest in close proximity to expanded road/rail surfaces.

<sup>&</sup>lt;sup>4</sup> FHWA originally estimated 25% in the 2018 BO, but data reports for projects that used this consultation between 2017 and 2021 show that 90% of the projects implemented inactive season tree clearing.

<sup>&</sup>lt;sup>5</sup> The 2018 BO originally estimated tree clearing of less than 5 acres per project, but data reports for projects that used this consultation between 2017 and 2021 show most projects involved less than 2 acres of tree removal. <sup>6</sup> The extent of suitable habitat for the NLEB is estimated per state using a rule-based model rather than simply

acres of forested habitat. The model merges National Land Cover Dataset data (including all forest layers and canopy coverage of greater than 45% to identify areas with larger contiguous forest stands) with suitable habitat for the species. Only areas with greater than 10 acres of forested area were included in the acreage of suitable habitat, as smaller fragments of habitat were considered unlikely to support the species

<sup>&</sup>lt;sup>7</sup> https://www.fws.gov/sites/default/files/documents/appendix-c-avoidance-and-minimization-measures-february-2018.pdf

Projects with more than 20 acres of tree removal that are distributed across more than 5 miles (8 km), may have similar impacts to multiple maternity colonies rather than one colony. This harm is anticipated during the first spring/summer after tree removal has occurred by causing a shift in roost trees, foraging patterns, and home range. We expect that given the linear nature and small amount of tree removal along existing road/rail surfaces, that in most cases, alternative roosting and foraging areas are generally available for each maternity colony to use near the action area; therefore, the impact of inactive season tree removal will likely diminish in subsequent years.

#### Bridge/Culvert and Structure Activities

NLEBs have been documented using bridges, culverts, and other structures as day and/or nighttime summer roosts (See Section 5.3 of the BO), but few assessments conducted in relation to this consultation between 2015 and 2019 have documented bat use, and none have detected presence of NLEBs. A review of 2,378 bridge/culvert and structure bat assessment forms that used the BO during this time revealed that 11% of structures assessed showed evidence of bat use (260 projects). Of these, 184 assessments included information on the species using the structure, and no NLEBs were observed across all structure types. In addition, 689 of the 2,378 structures assessed were culverts, and although evidence of bats was observed in culverts, none of the species identified were NLEBs.

Despite bat use of only 11% of structures assessed thus far related to this programmatic consultation, and the lack of any sign of NLEBs, we still think it is likely that NLEBs will be adversely affected during the implementation of this program. Occasional use of bridges, culverts, and other structures by the NLEB for roosting (See Section 5.3 of the BO), the potential for assessments to have missed NLEB use, and the potential for NLEBs to colonize the structures after the assessment and before work begins indicates to us that harm to individual NLEBs from at least one site is likely to occur. However, we do not think it is likely that maternity colonies as a whole will be harmed, as the implementation of the Bridge AMMs<sup>8</sup> further reduce the likelihood of adverse effects, particularly to maternity colonies on bridges, culverts, and/or structures. Although individual bats or small numbers (<5) of bats may have been missed during an assessment, we think it is unlikely that any assessment missed a maternity colony of bats. Therefore, incidental take of NLEBs in the form of harm or kill may occur from limited bridge/culvert or structure activities conducted in the active season and five or fewer NLEBs would be adversely affected in each incident.

#### Conclusion

We considered the current overall declining range-wide status of the NLEB and the similar condition of the species within the action area (environmental baseline). We then assessed the effects of the proposed action and the potential for cumulative effects in the action area on individuals, populations, and the species as a whole. The NLEB is distributed widely across all or parts of 37 states. The impacts

<sup>8</sup> https://www.fws.gov/sites/default/files/documents/appendix-c-avoidance-and-minimization-measures-february-2018.pdf

resulting from these projects will be dispersed; will affect only a small proportion of the area where the species may be present; and will be significantly minimized in areas where it is known to occur. The Service finds that such impacts are not likely to result in harm, or mortality at a level that would reduce appreciably the reproduction, numbers, or distribution of the NLEB, and therefore, we do not anticipate a reduction in the likelihood of both survival and recovery of the species. It is the Service's Opinion that this range-wide program of transportation activities, as proposed, is not likely to jeopardize the continued existence of the NLEB. No critical habitat has been designated for the NLEB.

#### **INCIDENTAL TAKE STATEMENT** – Indiana bat and NLEB

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the USFWS to include significant habitat modification or degradation that results in death or injury to wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering (50 CFR § 17.3). Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are nondiscretionary, and must be undertaken by the Transportation Agencies so that they become binding conditions of any grant or permit issued, as appropriate, for the exemption in section 7(o)(2) to apply. The Transportation Agencies have a continuing duty to regulate the activity covered by this incidental take statement. If the Transportation Agencies: (1) fail to assume and implement the terms and conditions; or (2) fail to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse.

To monitor the impact of incidental take, the Transportation Agencies and/or State DOT's must report the progress of the action and its impact on the species to the USFWS as specified in the incidental take statement (50 CFR 402.14(i)(3)), which we describe below.

#### **Indiana bat and NLEB**

#### Amount or Extent of Take Anticipated

In this section, we describe the incidental take of Indiana bats and NLEBs that is reasonably certain to occur from the implementation of the proposed program of transportation activities (Section 2 of the BO). We anticipate that take is reasonably certain to occur resulting from tree removal, and from some activities on existing bridges, culverts, and/or other structures, based on the stressor exposure-response analyses of section 5 of the BO.

We express the anticipated incidental take with surrogate measures. 50 CFR 402.14(i)(1)(i) states that surrogates may be used to express the amount or extent of anticipated take provided that the biological opinion or ITS: (1) describes the causal link between the surrogate and take of the listed species; (2) describes why it is not practical to express the amount of anticipated take or to monitor take-related impacts in terms of individuals of the listed species; and (3) sets a clear standard for determining when the amount or extent of the taking has been exceeded.

#### Tree Removal

For impacts from tree removal, the following ITS will use acres of habitat from which trees are removed as a surrogate. In this situation, acres of habitat impacted by tree removal is a reasonable and appropriate surrogate for incidental take of both the Indiana bat and NLEB as required at 50 CFR 402.14(i)(1)(i) for the following reasons:

- There is a causal link between the surrogate and the incidental take tree removal within suitable habitat is what will directly and indirectly cause the anticipated incidental take.
- For the Indiana bat and NLEB, it is not practical to express the amount of anticipated take in terms of individuals because there is no density or abundance estimate for the portion of the action area\_where take is anticipated. As a result, predicting the precise number of individuals that will be taken is not possible. Additionally, it is not practical to monitor take-related impacts in terms of individual Indiana bats and NLEBs for the following reasons: (1) both species have a small body size, are drab in color, which makes encountering dead or injured individuals unlikely; (2) Indiana bats and NLEBs both occupy summer habitats (heavily forested) where they are difficult to locate (multiple roosts located within and outside of the action area); (3) both species spend a substantial portion of their lifespan underground; (4) take may occur offsite (e.g., the bat dies outside of the action area); (5) starvation or failure to reproduce cannot be detected; and (6) losses may be masked by fluctuations in numbers associated with WNS. Because the location, timing, and acreage of habitat impacts can be readily identified, measured, and monitored, this surrogate is the most reasonable means for detecting when take may be exceeded.
- The extent in acres of tree removal in suitable habitat provides a clear standard because each project that includes tree removal in suitable habitat for the two bat species will be tracked and reported as described in Section 8.2 of the BO.

State DOTs and Transportation Agencies estimated the annual acreage of cleared trees from edge of road surface to 300 ft (see Table 1). To calculate anticipated take using this surrogate measure, we used the average annual tree clearing within a State from 0 to 300 ft (320 acres) multiplied by the numbers of states within the range of the Indiana bat (22 states) and NLEB (37 states + D.C.). **Therefore, we** 

estimate that 7,040 acres of potential Indiana bat habitat per year and 12,160 acres<sup>9</sup> of potential NLEB habitat per year could be removed during the implementation of the Program.

The number of bats taken within this acreage is greatly influenced by the implementation of the proposed avoidance and minimization measures (Section 2.9). Our analysis in Section 5 of the BO, which supports the Conclusion of Section 7.1 and 7.2, assumes full compliance with these measures. Several avoidance and minimization measures are particularly influential for projects within the proposed action:

- No tree-removal will occur within suitable Indiana bat habitat outside of documented areas between May 1 and July 31 of any year except under the following circumstances:
  - The project affects a limited number of trees such that all trees can be visually assessed as potential roost trees; and
  - Visual bat emergence surveys are conducted on larger trees; or
  - No trees greater than 9 inches dbh are removed.
- No tree removal will occur within documented Indiana bat roosting/foraging habitat or travel corridors between May 1 and July 31 (except in the case of emergency removal);
- No known occupied Indiana bat maternity trees will be removed during the active season;
- No documented NLEB maternity roosts and trees within 150 feet of those roosts will be removed between June 1 and July 31.
- No known or potential roost trees<sup>10</sup> within 0.5 miles of a known or suspected hibernaculum will be removed;
- The maximum acreage of tree removal anticipated for any given project is approximately 20 acres per five linear miles of project.

If the avoidance and minimization measures are not implemented, or if the current anticipated level of tree removal is exceeded, we expect the number of bats taken to increase as well.

### Bridge/Culvert and Structure Work

As with tree removal, the number of bridge/culvert and structure projects that will be implemented where signs of bat use are observed (five or fewer bats observed), will serve as the surrogate measure for the anticipated incidental take of Indiana bats and NLEBs. This is an appropriate surrogate for the following reasons, as required at 50 CFR 402.14(i)(1)(i):

<sup>&</sup>lt;sup>9</sup> The 741.30 acres of project-related tree removal attributed to the 350 actions covered by this amendment are part of these 12,160 total annual acreages for NLEB.

<sup>&</sup>lt;sup>10</sup> i.e., live trees and/or snags ≥5 inches dbh [12.7 centimeter] that have exfoliating bark, cracks, crevices, and/or hollows

- The anticipated take of Indiana bat and NLEBs will occur because of the bridge/culvert or structure work associated with these specific projects. Therefore, there is a causal link between the work associated with these projects and the anticipated take.
- It is not practical to monitor take-related impacts in terms of individuals of the listed species. The small size and cryptic behavior of Indiana bats and NLEBs roosting at these bridges/culverts or structures will prevent accurate enumeration of the number taken.
- The number of projects that include work on a bridge/culvert or structure where signs of bat use are recorded is a number that is readily tracked, and it will be clear if and when the number of such projects is exceeded.

The Service estimates that construction activities conducted during the active season at up to 10 bridge/culverts or structure projects range-wide<sup>11</sup> per annual reporting year, when signs of bat use or occupancy was observed (five or fewer bats observed), could likely result in the harm or death of Indiana bat and/or NLEBs during the implementation of the Program.

Bridge/culvert or structures activities conducted during the active season, with no signs of a maternity colony present (five or fewer bats observed), in which bats are likely to be disturbed or killed may result in take in the form of injury of death. In addition, bridge/culvert and structure bat assessments may fail to initially detect bats, but during construction, a small number of bats may be encountered, such that take may occur in the form of injury or death. The Service anticipates that in either of these instances, incidental take of a small number (five or fewer individuals) of Indiana bats and/or NLEBs may result from activities on existing bridges, culverts, and structures.

#### **Effect of the Take**

In the accompanying BO, the Service determined that this level of anticipated take is not likely to jeopardize the continued existence of the Indiana bat and NLEB.

#### **Reasonable and Prudent Measures**

The proposed action includes several measures (section 2.9 of the BO) that avoid and minimize the incidental take of Indiana bats and NLEBs resulting from projects that the Transportation Agencies fund or approve. Further, the avoidance and minimization measures required to avoid and minimize impacts to the Indiana bat and NLEB (section 2.9 of the BO) are also implemented for most of the projects listed. Because the Transportation Agencies will not typically carry out the projects they fund or approve under the proposed action, we find that that the following reasonable and prudent measure is necessary and appropriate to minimize the incidental take resulting from such projects:

The Transportation Agencies will ensure that State/local transportation agencies, which choose to include eligible projects under this programmatic action, incorporate all applicable conservation

<sup>&</sup>lt;sup>11</sup> Annual reports completed each year as described in the *Monitoring and Reporting* section have verified that the 17 bridge projects in the list of 350 actions did not exceed 10 projects range-wide per annual reporting year.

measures (avoidance, minimization, and compensation) in the project proposals submitted to the Service for ESA section 7 compliance using this BO.

#### **Terms and Conditions**

To be exempt from the prohibitions of section 9 of the ESA, the Transportation Agencies must comply with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

- The Transportation Agencies or their representatives will offer annual instruction to appropriate personnel who are involved in developing and implementing the projects listed. This instruction shall inform personnel about:
  - a. The criteria for determining that a project is eligible for such inclusion;
  - b. Developing the information required in the Project Submittal Form and describing the process for using the IPaC Assisted Determination Key;
  - c. The required avoidance and minimization measures; and
  - d. The administrative process for using this BO as the mechanism for project-level ESA section 7 compliance.
- 2. The Transportation Agencies and State/local transportation agencies will make all reasonable efforts to educate personnel to immediately report any sick, injured, and/or dead bats (regardless of species) located in the project action area during construction, operations, maintenance, or monitoring activities to the local Service Field Office. Due to the number of staff/contractors, it is not expected or required to educate all personnel working in the project action area, but only those who are most likely to observe bats during normal working conditions.

#### **Monitoring and Reporting Requirements**

"In order to monitor the impacts of incidental take, the federal agency or any applicant must report the progress of the action and its impact on the species to the USFWS as specified in the incidental take statement" (50 CFR §402.14(i)(3)).

- The Transportation Agencies will provide an annual report to the POC's (as described in the
  adaptive management section of this BO), not later than March 31, for the preceding calendar
  year, of all project-level activity under their programmatic action. The report will provide the
  information listed below, or alternative information that the Transportation Agencies and
  USFWS agree is appropriate.
  - a. The acreage of tree removal from habitats that is suitable for the Indiana bat and/or NLEB per project and a total for all projects. This acreage serves as a surrogate measure of incidental take per project and for the program as a whole.

- b. The number of bridge/culvert and/or structure projects where signs of bat use or occupancy was observed (five or fewer bats observed) that could likely result in the harm or death of Indiana bat and/or NLEBs.
- b. All project bat survey reports.
- c. All project bridge bat assessment forms.
- d. A description of bridge projects where bats were detected during project implementation, and if so, the number of bats observed, and where possible, the species observed.
- e. A description of project compensatory mitigation that the Transportation Agencies or their representatives implemented through in-lieu fee funds (ILF), conservation banks, project-proponent-sponsored mitigation, or through other means. For compensatory mitigation implemented through means besides ILF and conservation banks, the applicable Transportation Agency will provide a summary description of where, when, and how the mitigation was accomplished.
- 2. The Transportation Agencies, their cooperators, and any contractors must take care when handling dead or injured Indiana bats, NLEB, or any other federally listed species that are found at project sites in order to preserve biological material in the best possible state and to protect the handler from exposure to diseases, such as rabies. Project personnel are responsible for ensuring that evidence for determining the cause of death or injury is not unnecessarily disturbed. Reporting the discovery of dead or injured listed species is required in all cases to enable the USFWS to determine whether the level of incidental take exempted by this BO is exceeded and to ensure that the terms and conditions are appropriate and effective. Parties finding a dead, injured, or sick specimen of any endangered or threatened species must promptly notify the USFWS Field Office of applicable jurisdiction.

## **CONSERVATION RECOMMENDATIONS** [no change to 2018 BO]

#### **REINITIATION NOTICE** – Indiana bat and NLEB

Consultation with the Transportation Agencies on their limited range-wide program for transportation projects that may affect the Indiana bat and NLEB is concluded. Reinitiation of 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 of Indiana bat or NLEB is exceeded;
- 2. New information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this BO;
- 3. The agency action is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not considered in this BO; or
- 4. A new species is listed or critical habitat designated that may be affected by the action.

Per condition #1 above, the anticipated incidental take is exceeded when, in one calendar year:

- Transportation projects implemented under this program remove trees from more than 7,040 acres of habitat suitable for the Indiana bat; or
- Transportation projects implemented under this program remove trees from more than 12,160 acres of habitat suitable for the NLEB; or

•	Work on existing bridges/culverts or structures implemented under this program includes take
	of Indiana bats and/or NLEBs at more than 10 bridges/culverts or structures range-wide in a 12-month period.

Federal Lead Agency	State	Project Title	Species	NLEB Incidental Take (acres)	NLEB Incidental Take (individuals)	Timing of Activity (bat season)	Documented or Undocumented Habitat
FHWA	Oklahoma	JP 33054(04) Muskogee County	NLEB	4.60		inactive and active season	undocumented
FHWA	Oklahoma	Craig JP 31116(04)	NLEB	0.22		inactive and active season	undocumented
FHWA	Oklahoma	Nowata Co JP30496(04)	NLEB	5.38		inactive and active season	undocumented
FHWA	Oklahoma	Rogers Co JP29324(04)	NLEB	0.39		inactive and active season	undocumented
FHWA	Oklahoma	MAYES COUNTY JP 31069(04) J3- 1069(004)	NLEB	0.279		inactive and active season	undocumented
FHWA	Oklahoma	Mayes JP 28891	NLEB	13.11		inactive and active season	undocumented
FHWA	Oklahoma	W Clyde Mather Rd in Cherokee County JP 27722(04)	NLEB	1.14		inactive and active season	undocumented
FHWA	Oklahoma	E 1090Rd Improvements in McIntosh County JP 31302(04)	NLEB	11.10		inactive and active season	undocumented
FHWA	Oklahoma	Latimer County JP 29945(04) TO3	NLEB	0.62		inactive and active season	undocumented
FHWA	Oklahoma	JP 32899(04) LeFlore County	Indiana bat and NLEB	1.43		inactive season	undocumented

FHWA	Oklahoma	Cherokee Co. JP 33967(04)	NLEB	4.46	inactive and active season	undocumented
FHWA	Oklahoma	JP 32200(04) NS-414 over Vinegar Creek; Nowata County	NLEB	0.614	inactive and active season	undocumented
FHWA	Oklahoma	Sequoyah County JP 29780(04) Bridge & Approaches on SH-101 over Big Skin Bayou	Indiana bat and NLEB	6.18	inactive season	undocumented
FHWA	Oklahoma	TULSA COUNTY JP 29307(04) J2- 9307(004)IG	NLEB	0.674	active season	undocumented
FHWA	Oklahoma	Choctaw Co JP29618(04) SH-109	NLEB	18.41	active season	undocumented
FHWA	Oklahoma	JP 30687(04) Mayes County Bridge Replacement	NLEB	0.09	active season	undocumented
FHWA	Oklahoma	Cherokee County JP 30553(04) SH-51 Widen and Resurface	NLEB	13.87	active season	undocumented
FHWA	Oklahoma	Latimer US-270 [aka Latimer 20922(07)]	NLEB	19.30	active season	undocumented
FHWA	Oklahoma	Wagoner CO JP 31209(04)	NLEB	9.30	active season	undocumented
FHWA	Oklahoma	JP28901(04) & JP28901(07)	NLEB	2.999	active season	undocumented

FHWA	Oklahoma	Grade, Drain, Bridge and Surface on County Road NS-520, south 1 mile, then east on County Road EW-12	NLEB	1.33	inactive and active season	undocumented
FHWA	Oklahoma	Tulsa County JP 30885(04)	NLEB	1.33	active season	undocumented
FHWA	Oklahoma	JP 24403-04 - 0.25 Mile Buffer	NLEB	11.60	inactive and active season	undocumented
FHWA	Oklahoma	ODOT TO 7 Wickliffe Creek	NLEB	1.59	active season	undocumented
FHWA	Oklahoma	EC-1901A TO 5 Tulsa Co JP31550(04)	NLEB	0.32	active season	undocumented
FHWA	Oklahoma	Cherokee County JP 33502(04)	NLEB	6.67	active season	undocumented
FHWA	Oklahoma	Craig Co JP 31132(04) EW 27 over Pryor Creek	Indiana bat and NLEB	61.80	inactive season	undocumented
FHWA	Oklahoma	Delaware JP 27917(04) Widen & Resurface SH- 125	Indiana bat and NLEB	0.94	inactive season	undocumented
FHWA	Oklahoma	Adair Co JP33963(04)	Indiana bat and NLEB	0.035	inactive season	undocumented
FHWA	Oklahoma	McIntosh Co JP31429(04)	NLEB	3.22	inactive and active season	undocumented

FHWA	Oklahoma	JP 30398(04); SH-48 in Bryan County Widen and Resurface	NLEB	9.76	inactive and active season	undocumented
FHWA	Oklahoma	Mayes County JP31166(04) NS437 Road	NLEB	0.59	inactive and active season	undocumented
FHWA	Oklahoma	Delaware Co JP30373(04)(07)	Indiana bat and NLEB	2.30	inactive season	undocumented
FHWA	Oklahoma	CRAIG COUNTY JP 28530(04) J2- 8530(004)RB	NLEB	14.00	inactive and active season	undocumented
FHWA	Oklahoma	TULSA COUNTY JP 31098(04) J3- 1098(004)	NLEB	0.185	inactive and active season	undocumented
FHWA	Oklahoma	JP 32100(04) SH100 over Arkansas River	Indiana bat and NLEB	2.14	inactive season	undocumented
FHWA	Oklahoma	Ottawa JP 29610(04)- bridge rehab	NLEB	6.86	inactive and active season	undocumented
FHWA	Indiana	US 20 Elkhart County Project (Des 1600517) Widening from 2 lanes to 5 lanes	Indiana bat and NLEB	0.70	inactive season	undocumented
FHWA	Indiana	Beech Grove Greenway, DES 1600657	Indiana bat and NLEB	0.675	inactive season	undocumented

FHWA	Indiana	Bridge Replacement on Beechwood Rd, over the Little Blue River, in Crawford Co INDOT DES 1400825	Indiana bat and NLEB	0.24	inactive season	undocumented
FHWA	Indiana	1500023 SR 56 Curve Correction	Indiana bat and NLEB	1.41	inactive season	undocumented
FHWA	Indiana	Yeager Road - Des. No. 1401281	Indiana bat and NLEB	1.00	inactive season	undocumented
FHWA	Indiana	Main Street Reconstruction Project Phase II in Knox County, Indiana (Des. 1600727)	Indiana bat and NLEB	0.42	inactive season	undocumented
FHWA	Indiana	City of Mishawaka, Cedar Street Bridge Widening. Des No 1900449	Indiana bat and NLEB	0.057	inactive season	undocumented
FHWA	Indiana	Douglas Road Added Travel Lanes and Reconstruction, Des. No.: 1400639	Indiana bat and NLEB	0.10	inactive season	undocumented
FHWA	Indiana	CR 400 S Roadway Reconstruction (Des. No. 1600928)	Indiana bat and NLEB	0.016	inactive season	undocumented

FHWA	Indiana	B-Line Trail Extension and Multiuse Path (Des No. 1700735)	Indiana bat and NLEB	0.14	inactive season	undocumented
FHWA	Indiana	SR 47 Culvert Replacement Project (Des. No. 1800139)	NLEB	0.45	inactive season	undocumented
FHWA	Indiana	INDOT, Pigeon Creek Welcome Center Parking Lot Expansion, Des. No. 1902857	Indiana bat and NLEB	0.15	inactive season	undocumented
FHWA	Indiana	Lower Fall Creek Trail - New Multi-use Path (DES 1601003)	Indiana bat and NLEB	0.18	inactive season	undocumented
FHWA	Indiana	US 40 over Nolands Fork, 6.84 miles West of US 27	Indiana bat and NLEB	2.50	inactive season	documented
FHWA	Indiana	Des. No. 1600968, Road Realignment and Bridge Replacement, Posey Township, Rush County, IN	Indiana bat and NLEB	0.087	inactive season	undocumented
FHWA	Indiana	Des. No. 1700108, Small Town Pavement Replacement, SR 252 in Edinburgh, Johnson and Shelby Counties,	Indiana bat and NLEB	0.014	inactive season	undocumented

FHWA	Indiana	I-65 Added Travel Lanes Project (Des. No. 2001172 & 2100049)	Indiana bat and NLEB	1.30	inactive season	undocumented
FHWA	Indiana	City of West Lafayette Proposed Sagamore Trail LPA Project Des No 1401287	Indiana bat and NLEB	1.32	inactive season	undocumented
FHWA	Indiana	SR 45/46 Access Improvements, Des. No. 1700198	Indiana bat and NLEB	0.923	inactive season	undocumented
FHWA	Indiana	SR 124 Roadway Project, Des. No. 1800552	Indiana bat and NLEB	0.08	inactive season	undocumented
FHWA	Indiana	DES 1800140; SR 58 over Turtle Creek Bridge Project; Sullivan County, IN	Indiana bat and NLEB	0.38	inactive season	undocumented
FHWA	Indiana	SR 250 over Slate Creek Superstructure Replacement (Des. 1701502)	Indiana bat and NLEB	0.515	active season	undocumented
FHWA	Indiana	Des. No. 2001624 and 2001625 US 50 over Patrick Dunn Ditch Scour Protection Project	Indiana bat and NLEB	0.02	inactive season	undocumented

FHWA	Indiana	SR 60 Salem Bypass over West Fork Blue River, Streambank Stabilization, Des. No. 2100114	Indiana bat and NLEB	0.07	inactive season	undocumented
FHWA	Indiana	Des. No. 2000685 - Small Structure Pipe Lining - SR 37 over UNT to Winding Branch	Indiana bat and NLEB	0.45	inactive season	undocumented
FHWA	Indiana	Des. No. 2000687 - Small Structure Pipe Lining - SR 37 over UNT to Wheatley Creek	Indiana bat and NLEB	0.12	inactive season	undocumented
FHWA	Indiana	Des. No. 2000689 - Small Structure Pipe Lining - SR 37 over UNT to Deer Creek	Indiana bat and NLEB	0.08	inactive season	undocumented
FHWA	Indiana	Des. No. 2000882 - Small Structure Pipe Lining - SR 37 over Massey Creek	Indiana bat and NLEB	0.45	inactive season	undocumented
FHWA	Indiana	Des. No. 1801611, Bristol Street Roadway Improvements	Indiana bat and NLEB	0.05	inactive season	undocumented
FHWA	Indiana	SR 258 Sight Distance Correction (Des No. 1298633)	Indiana bat and NLEB	1.20	inactive season	undocumented

FHWA	Indiana	Lilly Rd Bridges 64 &65 Tippecanoe Co 1802905 1802907	Indiana bat and NLEB	0.168	inactive season	undocumented
FHWA	Indiana	Bristol Road Improvements Des 1801611 Elkhart Co	Indiana bat and NLEB	0.05	inactive season	undocumented
FHWA	Indiana	Cleveland Rd Beech Rd intersection Des 1900448 St. Joseph Co	Indiana bat and NLEB	0.03	inactive season	undocumented
FHWA	Indiana	SR 75 over Middle Fork Wildcat Cr Des 1703010	Indiana bat and NLEB	0.09	inactive season	undocumented
FHWA	Indiana	SR 124 Small Structure Huntington Co Des 1900242	Indiana bat and NLEB	0.18	inactive season	undocumented
FHWA	Indiana	SR 15 Culvert Proj UNT to Mississinewa Riv Grant Co Des 2001581	Indiana bat and NLEB	0.02	inactive season	undocumented
FHWA	Indiana	SR 145 Slide Correction Perry Co Des 1800163	Indiana bat and NLEB	0.33	active season	undocumented
FHWA	Indiana	SR 450 pipeliner Des 2000711 Martin Co	Indiana bat and NLEB	0.051	inactive season	undocumented
FHWA	Indiana	Buffington Harbor Dr Extension Realignment Des 1900830 Lake Co	Indiana bat and NLEB	0.96	inactive season	undocumented

FHWA	Indiana	I65 Added Travel Lanes SR 32 to SR 47 Boone Co Des 1802967	Indiana bat and NLEB	1.90	active season	undocumented
FHWA	Indiana	SR 37 pipeliner Perry Co Des 2000732	Indiana bat and NLEB	0.519	inactive season	undocumented
FHWA	Indiana	SR 235 Sm Struct replc Jackson Co Des 1700113	Indiana bat and NLEB	0.04	active season	undocumented
FHWA	Indiana	SR 258 Sigth Dist Correction Jackson Co Des 1298633	Indiana bat and NLEB	1.20	inactive season	undocumented
FHWA	Indiana	US20 Road Improv Added lanes des 1702993 LaPorte Co	Indiana bat and NLEB	0.45	inactive season	undocumented
FHWA	Indiana	Westchester Liberty Trail Phase 3 Des 1902832 Porter Co	Indiana bat and NLEB	0.10	inactive season	undocumented
FHWA	Indiana	Des 2001624 2001625 US 50 over Patrict Dunn Ditch Scour protect Knox Co	Indiana bat and NLEB	0.068	inactive season	undocumented
FHWA	Indiana	State Road 46 HMA Overlay-Minor Structural Des No 1900331, 2001983, 2001973,	NLEB	10.00	inactive season	documented

## 2001974,2001975

Brown Co.

		Brown Co.					
FHWA	Indiana	Des. 1800075 State Road 32 Bridge Project Over Mill Creek	Indiana bat and NLEB	0.233		inactive season	undocumented
FHWA	Indiana	U.S. 30 Small Structure Replacement, Porter County, Indiana (Des No. 1701335)	Indiana bat and NLEB	0.282		inactive season	undocumented
FHWA	Minnesota	S.P. 6803-40 (TH 11 Bridge Replacement in Warroad)	NLEB		5	inactive and active season	undocumented
FHWA	Minnesota	S.P. 8204-77 (M&O from Maplewood to Stillwater) 2021 UPDATE	NLEB	0.50		inactive season	undocumented
FHWA	Minnesota	S.P. 1814-08 (TH 371B)	NLEB	0.99		inactive season	undocumented
FHWA	Minnesota	S.P. 069-637-025, CSAH 37	NLEB	0.50		inactive season	undocumented
FHWA	Minnesota	S.P. 2513-97 (US 61 Red Wing to Lake City)	NLEB		5	inactive season	undocumented
FHWA	Minnesota	S. P. 1906-71 (TH 52)	NLEB	2.49		inactive season	undocumented
FHWA	Minnesota	S.P. 0410-50 (TH 71)	NLEB	1.00		inactive season	undocumented
FHWA	Minnesota	S.P. 0119-30, TH 210	NLEB	13.00		inactive season	undocumented

FHWA	Minnesota	S.P. 069-701-007 (CSAH 101)	NLEB	1.00		inactive season	undocumented
FHWA	Minnesota	S.P. 8827-320 (TH 4 and TH 62)	NLEB	2.49		inactive season	undocumented
FHWA	Minnesota	S.P. 080-601-007 (CSAH 1)	NLEB	1.00		inactive season	undocumented
FHWA	Minnesota	SP 196-010-017, SP 1008-87 (TH 41, CSAH 61)	NLEB	2.50		inactive season	undocumented
FHWA	Minnesota	S.P. 1913-110, TH 61	NLEB		5	active season	undocumented
FHWA	Minnesota	S.P. 1921-90, TH 3	NLEB	2.50		inactive season	undocumented
FHWA	Minnesota	S.P. 3307-43, TH 65	NLEB	0.99		inactive season	undocumented
FHWA	Minnesota	S.P. 5580-94 (I-90 EB near Stewartville)	NLEB		5	inactive and active season	undocumented
FHWA	Minnesota	S.P. 2785-424 I-494 First Construction Project	NLEB	1.25		inactive season	undocumented
FHWA	Minnesota	S.P. 7608-21 (TH 29)	NLEB		5	active season	undocumented
FHWA	Minnesota	S.P. 6605-38 (TH 21)	NLEB	2.50		active season	undocumented
FHWA	Minnesota	MnDOT 35W Bridge Replacement Project (S.P. 1981-124)	NLEB	3.00	5	active season	undocumented
FHWA	Minnesota	S.P. 071-608-022, Sherburne CSAH 8	NLEB	7.00		active season	undocumented

FHWA	Minnesota	S.P. 056-090-013 / S.A.P. 056-634-011	NLEB	3.00		inactive season	undocumented
FHWA	Minnesota	SP 086-638-007 Albertville & Otsego	NLEB	0.10		active season	undocumented
FHWA	Minnesota	SP 162-090-007	NLEB	0.20		inactive season	undocumented
FHWA	Minnesota	SP 070-030-009, Scott County New Lanes (Re- Review)	NLEB	2.00		active season	undocumented
FHWA	Minnesota	S.P. 3805-79 & 3805- 99, TH 61 - Silver Creek Bridge Replacement & Historical Bridge Rehab	NLEB	3.99		inactive season	undocumented
FHWA	Minnesota	SP 4006-35 (TH 60 from US 14 to Waterville)	NLEB	4.00		inactive season	undocumented
FHWA	Minnesota	SP 027-681-038 Hennepin CSAH 81 Bridge Reconstruction	NLEB	2.99		active season	undocumented
FHWA	Minnesota	03E19000-2018-F-1225	NLEB	1.00		inactive season	undocumented
FHWA	Minnesota	S.P. 3101-37, 6920-56, 6901-29 - TH 1, 53, 73	NLEB	2.49		active season	undocumented
FHWA	Minnesota	SP 019-090-021River to River Greenway Regional Trail	NLEB	2.49		active season	undocumented
FHWA	Minnesota	S.P. 3902-26, Various	NLEB	0.99	5	active season	undocumented

FHWA	Minnesota	S.P. 055-622-062, Members Parkway & CSAH 22 (Retail Drive)	NLEB	2.50	inactive season	undocumented
FHWA	Minnesota	S.P. 5209-80 (TH 169)	NLEB	2.50	inactive season	undocumented
FHWA	Minnesota	S.P. 3280-136, S.P. 3280-137, Rest Areas	NLEB	1.00	inactive season	undocumented
FHWA	Minnesota	SP 069-070-055 & 088- 021-336 - St. Louis & Carlton County Bridge Replacements	NLEB	9.99	inactive season	undocumented
FHWA	Minnesota	SP 7902-25 (TH 60) - Mill & Overlay, Bridge Replacements, Reconstruction	NLEB	2.48	inactive season	undocumented
FHWA	Minnesota	SP 109-020-014 Brooklyn Boulevard Reconstruction	NLEB	1.99	inactive season	undocumented
FHWA	Minnesota	S.P. 1926-22 (TH 316)	NLEB	1.00	inactive season	undocumented
FHWA	Minnesota	S.P. 7703-16 (TH 27 between I-94 and US 71)	NLEB	0.50	inactive season	undocumented
FHWA	Minnesota	SP 156-090-004, Red Wing Riverfront Trail Segment 3	NLEB	4.99	inactive season	undocumented
FHWA	Minnesota	S.P. 2306-26 Mill and Overlay	NLEB	2.99	inactive season	undocumented

FHWA	Minnesota	SP 7212-21 (TH 93) - Mill & Overlay, Bridge Work, Potential Grade Raise	NLEB	12.00	active season	undocumented
FHWA	Minnesota	S.P. 8680-173, I-94	NLEB	3.00	active season	undocumented
FHWA	Minnesota	SP 019-670-013 CSAH 70 Lakeville	NLEB	5.00	inactive season	undocumented
FHWA	Minnesota	S.P. 2785-424 I-494 First Construction Project	NLEB	1.25	inactive season	undocumented
FHWA	Minnesota	S.P. 4302-96, TH 7	NLEB	2.5	active season	undocumented
FHWA	Minnesota	S.P. 8302-48 and 0801- 35, TH 4		5.00	inactive season	undocumented
FHWA	Minnesota	S.P. 060-607-005, CSAH 7	NLEB	5.00	active season	undocumented
FHWA	Minnesota	S.P. 029-090-004, Akeley Trail Connections	NLEB	1.00	inactive season	undocumented
FHWA	Minnesota	SP 092-090-061	NLEB	4.50	active season	undocumented
FHWA	Minnesota	SP 008-608-041	NLEB	2.50	inactive season	undocumented
FHWA	Minnesota	SP 125-090-005	NLEB	2.50	active season	undocumented
FHWA	Minnesota	SP 6908-61	NLEB	0.50	inactive season	undocumented
FHWA	Minnesota	SP 8282-132, I-94	NLEB	0.99	inactive season	undocumented
FHWA	Minnesota	SP 6947-57, TH 37	NLEB	2.50	inactive season	undocumented

FHWA	Minnesota	S.P. 3006-39, TH 95 Cambridge	NLEB	0.99		inactive season	undocumented
FHWA	Minnesota	S.P. 0714-35 (TH 22)	NLEB	2.00	5	inactive season	undocumented
FHWA	Minnesota	S.P. 173-090-001 & 019-673-010 (CSAH 73 &6)	NLEB	10.00		active season	undocumented
FHWA	Minnesota	S.P. 5880-199 & 5880- 200	NLEB		5	active season	undocumented
FHWA	Minnesota	S.P. 2513-98, TH 61	NLEB	1.00	5	active season	undocumented
FHWA	Minnesota	S.P. 5580-99 TH 52&90	NLEB	2.90		inactive season	undocumented
FHWA	Minnesota	S.P. 019-673-011 (CR 6 & CSAH 73)	NLEB	0.99		active season	undocumented
FHWA	Minnesota	S.P. 0980-156, I-35	NLEB		5	active season	undocumented
FHWA	Minnesota	S.P. 164-090-017 Fish Hatchery Trail	NLEB	0.50		active season	undocumented
FHWA	Minnesota	S.P. 5080-170	NLEB		5	active season	undocumented
FHWA	Minnesota	S.P. 8282-136 St. Croix Rest Area	NLEB	0.49		inactive season	undocumented
FHWA	Minnesota	S.P. 0980-162 I-35	NLEB	2.00		inactive season	undocumented
FHWA	Minnesota	S.P. 8828-251 TH 999	NLEB		5	active season	undocumented
FHWA	Minnesota	S.P. 1118-22	NLEB	1.00		inactive season	undocumented
FHWA	Minnesota	S.P. 6935-94	NLEB		5	inactive season	undocumented
FHWA	Minnesota	S.P. 0708-47	NLEB		5	active season	undocumented

FHWA	Minnesota	S.P. 7002-53, TH 21	NLEB	1.00		inactive season	undocumented
FHWA	Minnesota	S.P. 7212-21, TH 93	NLEB	5.00	5	active season	undocumented
FHWA	Minnesota	S.P. 1013-77, TH 212	NLEB	3.00		inactive season	undocumented
FHWA	Missouri	4S3088 & B Clay County Route 169	Indiana bat and NLEB	0.72		inactive season	undocumented
FHWA	Missouri	LPA-Missouri FHWA Federal Trans Project St. Charles Co CMAQ- 7302(674) RtN/RtZ	Indiana bat and NLEB	0.47		inactive season	undocumented
FHWA	Missouri	Schwede Road Realignment	Indiana bat and NLEB	0.013		inactive season	undocumented
FHWA	Missouri	Clark County Bridge 11000371	Indiana bat and NLEB	0.11		inactive season	undocumented
FHWA	Missouri	FHWA - LPA Fed Trans Project, Platte, STP- 3451(402), NW Waukomis, Old Maid's Cr and E Fork Line Cr	Indiana bat and NLEB	0.90		inactive season	undocumented
FHWA	Missouri	FHWA - LPA Fed Trans Project, St. Charles Co., STP-5414(638); Interstate Drive	Indiana bat and NLEB	0.20		inactive season	undocumented
FHWA	Missouri	Old Lemay Ferry Rd STP-5461 (609)	Indiana bat and NLEB	0.45		inactive season	undocumented
FHWA	Missouri	9P3169 Ozark County Route 160	Indiana bat and NLEB	3.40		inactive season	undocumented

FHWA	Missouri	3470 Taney County	Indiana bat and NLEB	0.228	inactive season	undocumented
FHWA	Missouri	3P3181 Saline County US 65	Indiana bat and NLEB	0.11	inactive season	undocumented
FHWA	Missouri	7P3433 Lawrence 60	Indiana bat and NLEB	2.60	inactive season	undocumented
FHWA	Missouri	Colbern Road Expansion	Indiana bat and NLEB	8.40	inactive season	undocumented
FHWA	Missouri	Reynolds County Route K Project (K 9S3455)	Indiana bat and NLEB	0.50	inactive season	undocumented
FHWA	Missouri	St. Charles County I-70 Realignment Project (610624)	Indiana bat and NLEB	4.87	inactive season	undocumented
FHWA	Arkansas	Little Sugar & Tanyard Creeks Strs. & Apprs.	Indiana bat and NLEB	0.15	inactive season	undocumented
FHWA	Arkansas	ARDOT job #080614 Pee Dee Creek Str. & Apprs. (S)	Indiana bat and NLEB	0.54	active season	undocumented
FHWA	Arkansas	BR2503 - Spring River Str. & Apprs. (S)	Indiana bat and NLEB	0.03	active season	undocumented
FHWA	Arkansas	040476 - Truckers Dr. Howard Nickell Rd. (Fayetteville) (S)	Indiana bat and NLEB	3.00	inactive season	undocumented
FHWA	Arkansas	Missouri and Northern Arkansas RR Str. & Apprs. (Sumit) (S)	Indiana bat and NLEB	1.80	active season	undocumented

FHWA	Arkansas	ArDOT job #090434 Wolf Creek and Decatur Branch Strs. & Apprs. (S)	Indiana bat and NLEB	0.18	active season	undocumented
FHWA	Arkansas	040780 Cedar Creek Strs. & Apprs. (Altus)	Indiana bat and NLEB	0.25	active season	undocumented
FHWA	Arkansas	090556 Campground Creek Str. & Apprs.	Indiana bat and NLEB	1.00	inactive season	undocumented
FHWA	Arkansas	ArDOT job #090549 - Leatherwood Creek Str. & Apprs. (S)	Indiana bat and NLEB	1.20	active season	undocumented
FHWA	Arkansas	040779 - Elmo Creek Str. & Apprs. (S)	Indiana bat and NLEB	0.16	inactive season	undocumented
FHWA	Arkansas	ArDOT Job #100991 Independence Co. Line - Eaton Strs. & Apprs. (S)	Indiana bat and NLEB	3.05	active season	undocumented
FHWA	Arkansas	012227 - Guy - Heber Springs (Safety Impvts.) (Sel. Secs.) (S)	Indiana bat and NLEB	0.50	active season	undocumented
FHWA	Arkansas	ARDOT Job 050474 - Sulphur Springs Creek Str. & Apprs.	Indiana bat and NLEB	1.13	active season	undocumented
FHWA	Arkansas	ARDOT Job 061737 - Ouachita River - Fleetwood Dr.	Indiana bat and NLEB	8.14	inactive season	undocumented

FHWA	Arkansas	ARDOT Job 050475 - Little Piney Creek	Indiana bat and NLEB	0.80	active season	undocumented
FHWA	Arkansas	ARDOT Job 040866 - Baron Fork & Fly Creek	Indiana bat and NLEB	0.80	inactive season	undocumented
FHWA	Arkansas	ARDOT Job 040789 Gap and Turbin Creeks	Indiana bat and NLEB	0.06	inactive season	undocumented
FHWA	Arkansas	ARDOT Job 070509 Caddo River - Hwy. 67 Bridge Replacement	Indiana bat and NLEB	1.29	inactive season	undocumented
FHWA	Arkansas	ARDOT Job 040779 - Elmo Creek	Indiana bat and NLEB	0.16	active season	undocumented
FHWA	Arkansas	ARDOT Job 090506 Illinois River	Indiana bat and NLEB	0.80	inactive season	undocumented
FHWA	Arkansas	ARDOT Job 050474 - Sulphur Springs Creek	Indiana bat and NLEB	1.13	active season	undocumented
FHWA	Arkansas	ARDOT Job 090642 - Hwy. 235	Indiana bat and NLEB	0.70	active season	undocumented
FHWA	Arkansas	ARDOT Job 080677 - Bradley Branch	Indiana bat and NLEB	0.70	active season	undocumented
FHWA	Arkansas	ARDOT Job #090431 - Little Sugar Creek Str. & Apprs.	Indiana bat and NLEB	0.75	active season	undocumented
FHWA	Arkansas	ARDOT Job # 040788 - Hwy. 64 Strs. & Apprs.	Indiana bat and NLEB	1.29	active season	undocumented

FHWA	Arkansas	ARDOT Job #100981 Hwy. 117 - Hwy 25	Indiana bat and NLEB	3.20	active season	undocumented
FHWA	Arkansas	ARDOT Job #100991 Independence Co. Line - Eaton St	Indiana bat and NLEB	3.05	active season	undocumented
FHWA	Arkansas	ARDOT Job 040871 - Rock Creek Str. & Apprs.	Indiana bat and NLEB	1.45	active season	undocumented
FHWA	Arkansas	ARDOT Job # 090650 - Hwys. 23/62 Inters. Impvts. (Eureka Springs) (S)	Indiana bat and NLEB	2.11	active season	undocumented
FHWA	Arkansas	ARDOT Job # 040868 - Hicks Creek Str. & Apprs.	Indiana bat and NLEB	1.57	inactive and active season	undocumented
FHWA	Arkansas	ARDOT Job # A40009 - Frog Bayou Str. & Apprs. (S)	Indiana bat and NLEB	0.22	active season	undocumented
FHWA	Arkansas	ARDOT Job # BR7615 - Mulberry River Str. & Apprs. (S)	Indiana bat and NLEB	0.30	inactive season	undocumented
FHWA	Arkansas	ARDOT Job # 090643 - Hwy. 103 Str. & Apprs. (S)	Indiana bat and NLEB	0.30	active season	undocumented
FHWA	Arkansas	ARDOT Job #040476 - Truckers Dr. – Howard	Indiana bat and NLEB	3.00	inactive season	undocumented

		Nickell Rd. (Fayetteville) (S)				
FHWA	New Hampshire	Claremont 13248, Intersection Improvement NH 12/NH 103 and North Street	NLEB	2.72	active season	undocumented
FHWA	New Hampshire	Lebanon, 15717	NLEB	0.45	active season	undocumented
FHWA	New Hampshire	Alexandria, 15937 Culvert #1	NLEB	0.14	active season	undocumented
FHWA	New Hampshire	Cornish 40296	NLEB	0.45	active season	undocumented
FHWA	New Hampshire	Alexandria, 15937 Culvert # 2	NLEB	0.14	active season	undocumented
FHWA	New Hampshire	Ellsworth 40874	NLEB	2.00	active season	undocumented
FHWA	New Hampshire	Bedford NH101 - I-293 Paving Project (NHDOT State Project No. 41174)	NLEB	0.10	active season	undocumented
FHWA	New Hampshire	Keene 40439 - Cheshire Rail Trail III Loop Project	NLEB	1.00	inactive and active season	undocumented
FHWA	New Hampshire	NHDOT 41534 Statewide Paving Project - T2 West	NLEB	0.12	active season	undocumented
FHWA	New Hampshire	Alstead 20817	NLEB	0.50	active season	undocumented

FHW	A New Hampshire	Merrimack 10136D	NLEB	0.30	inactive and active season	undocumented
FHW	A New Hampshire	Concord-Pembroke 41267	NLEB	0.25	active season	undocumented
FHWA	New Hampshire	Haverhill 16238	NLEB	0.20	active season	undocumented
FHWA	New Hampshire	Bethlehem 26763	NLEB	0.50	inactive and active season	undocumented
FHWA	New Hampshire	Portsmouth 27690	NLEB	0.10	inactive and active season	undocumented
FHW	New Hampshire	Swanzey, 40485	NLEB	1.08	active season	undocumented
FHW	New Hampshire	Gilford 41655	NLEB	0.10	active season	undocumented
FHW	A New Hampshire	Exeter Transportation Alternatives Program (TAP) Sidewalk Project	NLEB	0.90	inactive and active season	undocumented
FHW	A New Hampshire	Hinsdale-Brattleboro 12210C	NLEB	1.00	inactive and active season	undocumented
FHWA	New Hampshire	Ossipee 29315	NLEB	0.02	inactive and active season	undocumented
FHW	New Hampshire	Warner 40512	NLEB	4.00	inactive and active season	undocumented
FHW	A New Hampshire	Gilford 42249	NLEB	0.30	active season	undocumented
FHW/	A New Hampshire	Jaffrey NH 202 Traffic Intersection Improvement Project	NLEB	1.00	inactive and active season	undocumented
FHW	A New Hampshire	Ossipee 13910, ROAD IMPROVEMENTS, NH	NLEB	0.10	inactive and active season	undocumented
FHW	A New Hampshire	BRIDGE REPLACEMENT, Orford, NH 40366	NLEB	0.50	active season	undocumented

FHWA	New Hampshire	Shelburne Route 2 Culvert Replacement, NH	NLEB	0.07	active season	undocumented
FHWA	New Hampshire	BRIDGE REPLACEMENT, Bedford, NH 13692C - Pulpit Brook	NLEB	0.85	inactive and active season	undocumented
FHWA	New Hampshire	BRIDGE REPLACEMENT, Peterborough, NH	NLEB	0.30	active season	undocumented
FHWA	New Hampshire	PAVEMENT PRESERVATION, NH- SEE DESC FOR LOCATIONS	NLEB	1.00	active season	undocumented
FHWA	New Hampshire	Brookline, NH TAP Sidewalk Improvements, PEDESTRIAN BRIDGE	NLEB	0.16	inactive and active season	undocumented
FHWA	New Hampshire	Newington-Dover General Sullivan Bridge, NEWINGTON, DOVER, NH	NLEB	0.20	inactive and active season	undocumented
FHWA	New Hampshire	Statewide 41899, GUARDRAIL REPLACEMENTS, NH	NLEB	1.00	inactive and active season	undocumented
FHWA	New Hampshire	BRIDGE REPLACEMENT, Danbury, NH 16303	NLEB	1.60	inactive and active season	undocumented
FHWA	New Hampshire	PAVEMENT PRESERVATION	NLEB	0.10	inactive and active season	undocumented

		PROJECT, Milford- Amherst 43031, NH				
FHWA	New Hampshire	ROADSIDE BARRIER REPLACEMENTS, NH	NLEB	0.10	inactive and active season	undocumented
FHWA	New Hampshire	ROADSIDE BARRIER REPLACEMENTS, Lyme- Haverhill 41913	NLEB	1.00	inactive and active season	undocumented
FHWA	New Hampshire	BOX CULVERT REPLACEMENT, Bennington 29486, NH	NLEB	0.25	active season	undocumented
FHWA	New Hampshire	Hillsborough, NH TAP Sidewalk Improvements - West Main Street	NLEB	1.00	inactive and active season	undocumented
FHWA	New Hampshire	BRIDGE REHAB, ASHLAND, BRIDGEWATER, NH	NLEB	0.50	inactive and active season	undocumented
FHWA	New Hampshire	CULVERT REHABILITATION, BEDFORD, NH	NLEB	0.70	active season	undocumented
FHWA	New Hampshire	Springfield 20509, CULVERT REPLACEMENT	NLEB	1.00	active season	undocumented
FHWA	New Hampshire	SIGN REPLACEMENT, HOLDERNESS, PLYMOUTH, CAMPTON, NH	NLEB	1.00	active season	undocumented

FHWA	New Hampshire	Sutton 42419	NLEB	0.01	active season	undocumented
FHWA	New Hampshire	Danbury, 16303	NLEB	1.60	inactive and active season	undocumented
FHWA	New Hampshire	Warner 15907	NLEB	0.09	active season	undocumented
FHWA	New Hampshire	Bedford 13692C - Pulpit Brook	NLEB	0.85	inactive and active season	undocumented
FHWA	New Hampshire	NHDOT No. 41915A Scour Stabilization Project	NLEB	1.40	inactive and active season	undocumented
FHWA	New Hampshire	Sutton-New London 40511	NLEB	4.40	active season	undocumented
FHWA	New Hampshire	Ossipee 41251	NLEB	1.75	inactive and active season	undocumented
FHWA	New Hampshire	Campton-Thornton- Waterville Valley 43102	NLEB	0.30	inactive and active season	undocumented
FHWA	New Hampshire	Bedford 43138	NLEB	0.50	inactive and active season	undocumented
FHWA	New Hampshire	Madbury 43276	NLEB	0.01	inactive and active season	undocumented
FHWA	New Hampshire	NH DOT 42534 Woodstock 195/093 Bridge Scour Repairs (2021)	NLEB	0.72	inactive and active season	undocumented
FHWA	New Hampshire	Claremont- Newport/Chesterfield- Keene 43057	NLEB	0.20	inactive season	undocumented
FHWA	New Hampshire	NHDOT Concord 29601 Improvements at Interstate 89 Exit 2 NB	NLEB	0.23	inactive and active season	undocumented

and SB Ramp Terminus

		Intersections				
FHWA	New Hampshire	Rte 302 intersection safety improvements, Conway, NH	NLEB	0.40	inactive and active season	undocumented
FHWA	New Hampshire	Bridge replacement, Tamworth, NH	NLEB	0.50	inactive and active season	undocumented
FHWA	New Hampshire	Bridge replacement, Lee, NH	NLEB	0.10	inactive and active season	undocumented
FHWA	New Hampshire	I-89 improvements, Concord, NH	NLEB	0.20	inactive and active season	undocumented
FHWA	New Hampshire	Bridge preservation, Hanover, NH, Norwich, VT	NLEB	0.25	inactive and active season	undocumented
FHWA	New Hampshire	Multi-use path/trail project, Londonderry- Manchester, NH	NLEB	0.20	inactive season	undocumented
FHWA	New Hampshire	Intersection improvements, Pelham, NH - Pelham CMAQ Project — Mammoth Road at Sherburne Rd and Marsh Rd	NLEB	0.33	inactive and active season	undocumented
FHWA	New Hampshire	Rehab/replace corrugated pipe, Loudon, NH - e NHDOT	NLEB	0.02	inactive and active season	undocumented

Loudon 44011; X-

		A005(284)				
FHWA	New Hampshire	Highway safety Improvements, 7 sites in NH	NLEB	0.07	inactive and active season	undocumented
FHWA	New Hampshire	Intersection improvement/culvert replacement, Newton, NH	NLEB	0.50	inactive and active season	undocumented
FHWA	New Hampshire	Bridge scour repairs, Woodstock, NH	NLEB	1.62	inactive and active season	undocumented
FHWA	New Hampshire	NH Route 124 causeway over Perkins Pond on the Troy/Jaffrey town line	NLEB	0.45	active season	undocumented
FHWA	New Hampshire	NHDOT Warner-Sutton 15747	NLEB	9.464	active season	undocumented
FHWA	New Hampshire	NHDOT Columbia 43441, FHWA #X- A005(109), DOT #43441	NLEB	0.081	inactive and active season	undocumented
FHWA	New Hampshire	NHDOT Jefferson 42558 US Route 2 Bridge & Culvert Replacement	NLEB	0.081	inactive and active season	undocumented
FHWA	New Hampshire	Londonderry 41715	NLEB	1.50	inactive and active season	undocumented

FHWA	New York	D&H and O&W Trail	Indiana bat and NLEB	0.20	inactive season	undocumented
FHWA	New York	Harlem Valley Rail Trail Orphan Farm Road to Black Grocery Road, PIN 8762.53	Indiana bat and NLEB	0.84	inactive season	undocumented
FHWA	New York	NY 263 at Hopkins Road - Intersection Realignment	NLEB	0.30	inactive season	undocumented
FHWA	New York	Route 60 - Fredonia Turning Lane	NLEB	1.25	inactive and active season	undocumented
FHWA	New York	US Route 219 and Route 954T: SNI territory line to Route 417	NLEB	1.80	active season	undocumented
FHWA	New York	Bridge Project - US 20 Over Caz Creek	NLEB	4.50	active season	undocumented
FHWA	New York	PIN 5350.01 NY 187 (Transit Road) at Milestrip Road, Intersection Improvement Project	NLEB	0.50	inactive season	undocumented
FHWA	New York	PMI – RT 240/277; RT 20 – RT 952J	NLEB	0.90	active season	undocumented
FHWA	New York	5813.69 - Highway Project: NY Route 5	NLEB	0.50	inactive season	undocumented

		Barcelona Retaining Wall				
FHWA	New York	US 219 Over Nichols Run	NLEB	0.72	active season	undocumented
FHWA	New York	Bridge Rehabilitation - Route I-86 over Chautauqua Lake	NLEB	1.80	active season	undocumented
FHWA	New York	Kingston Rail Trail	Indiana bat and NLEB	0.10	inactive season	undocumented
FHWA	New York	Fair Street Reconstruction	Indiana bat and NLEB	0.40	inactive season	undocumented
FHWA	New York	NYS Rte 410 Over Black River	NLEB	4.00	inactive season	undocumented
FHWA	New York	PIN 8816.44 Culvert rehab CA00080	Indiana bat and NLEB	0.16	inactive season	undocumented
FHWA	New York	PIN 8816.44 Culvert rehab CA00089	Indiana bat and NLEB	0.36	inactive season	undocumented
FHWA	New York	PIN 8816.44 Culvert rehab CA00099	Indiana bat and NLEB	0.49	inactive season	undocumented
FHWA	New York	Heritage Trail Extension (Segment 3) West Main Street to Ingrassia Road Town of Wallkill and City of Middletown Orange County	Indiana bat and NLEB	3.97	inactive season	undocumented

FHWA	New York	5814.50 - NY Route 60: NY Route 83 to US 20	NLEB	1.25	active season	undocumented
FHWA	New York	5111.77 - US 20 (Transit Road) Bridge over Cazenovia Creek BIN 1015520	NLEB	4.50	active season	undocumented
FHWA	New York	5814.39 - PMI Route 240/277 from Route 20 to New Armour Duells Road (952J)	NLEB	0.90	active season	undocumented
FHWA	New York	5101.92 - US 219 from SNI to NY 417	NLEB	1.80	active season	undocumented
FHWA	New Jersey	Rt. 15 Corridor Rockfall Geotech Locations	Indiana bat and NLEB	0.53	inactive season	documented and undocumented
FHWA	New Jersey	Route 130, Georges Road (CR679) Wheeling Road including stormwater basin	NLEB	1.625	inactive season	undocumented
FHWA	New Jersey	Rt. 15 NB, Bridge over Abandoned Mt. Hope Mineral RR Bridge	Indiana bat and NLEB	0.70	inactive season	undocumented
FHWA	Maine	Prospect Route 1 22966 Rock slide and slope repair	NLEB	0.20	inactive and active season	undocumented
FHWA	Massachusetts	Rte 129 reconstruction, Lynn, MA	NLEB	0.40	inactive season	undocumented

FHWA	Massachusetts	Pavement preservation and related work, Rte 7, Lanesborough, MA	NLEB	1.00	inactive and active season	undocumented
FHWA	Massachusetts	Rte 68 reconstruction, Hubbardston, MA	NLEB	2.10	inactive and active season	undocumented
FHWA	Massachusetts	Intersection improvements, Rte 1/1A, Rte 123, Attleboro, MA	NLEB	1.00	inactive and active season	undocumented
FHWA	Massachusetts	Traffic sign replacement, 184, Holland-Sturbridge, MA	NLEB	0.10	inactive and active season	undocumented
FHWA	Massachusetts	Pavement preservation, Phillipston, Templeton, MA	NLEB	8.25	inactive and active season	undocumented
FHWA	Massachusetts	Intersection and signal improvements, Great Barrington, MA	NLEB	0.50	inactive and active season	undocumented
FHWA	Massachusetts	Intersection improvements, Rte 2A, Littleton, Ayer, MA	NLEB	0.46	inactive and active season	undocumented
FHWA	Massachusetts	Guide and traffic sign replacement, Rte 190, Worcester, Leominster, MA	NLEB	0.50	inactive and active season	undocumented

FHWA	Massachusetts	Stormwater retrofits, I- 95 and I-495, Foxborough, MA	NLEB	2.00	inactive and active season	undocumented
FHWA	Massachusetts	Highway lighting system reokacement, I- 93, Boston, Milton, Quincy, MA	NLEB	0.20	inactive and active season	undocumented
FHWA	Massachusetts	Pavement rehab, Holden, MA	NLEB	2.10	inactive and active season	undocumented
FHWA	Massachusetts	Rd resurfacing, etc., Foxborough, Walpole, MA	NLEB	0.10	inactive and active season	undocumented
FHWA	Massachusetts	Highway lighting improvements, Canton, Dedham, Norwood, MA	NLEB	0.75	inactive and active season	undocumented
FHWA	Massachusetts	Brayton Elementary School improvements, North Adams, MA	NLEB	0.10	inactive and active season	undocumented
FHWA	Massachusetts	Resurfacing and sidewalk improvements, Gardner, MA	NLEB	0.10	inactive and active season	undocumented
FHWA	Massachusetts	Road safety improvements, Rowley, MA	NLEB	0.10	inactive and active season	undocumented

FHWA	Massachusetts	Intersection improvements, Lowell, Tewksbury, MA	NLEB	0.20	inactive and active season	undocumented
FHWA	Massachusetts	Median cable barrier installation, Attleboro, North Attleboro, MA	NLEB	1.00	inactive and active season	undocumented
FHWA	Massachusetts	Traffic sign replacement, 195/128, 3 sites in MA	NLEB	0.25	inactive and active season	undocumented
FHWA	Massachusetts	Bridge replacement, Greenfield, MA	NLEB	5.60	inactive season	undocumented
FHWA	Massachusetts	Bridge preservation, Westford, MA	NLEB	0.55	inactive and active season	undocumented
FHWA	Massachusetts	Roundabout, Templeton, MA	NLEB	0.10	inactive and active season	undocumented
FHWA	Massachusetts	Pavement preservation, Fitchburg, MA	NLEB	14.60	inactive and active season	undocumented
FHWA	Massachusetts	Intersection improvements, Stoughton, MA	NLEB	1.80	inactive and active season	undocumented
FHWA	Massachusetts	Bridge rehab., Andover, MA	NLEB	12.00	inactive and active season	undocumented
FHWA	Massachusetts	Bridge preservation, Worcester, MA	NLEB	0.45	inactive and active season	undocumented

FHWA	Pennsylvania	I-70 Yukon and Madison Interchanges	Indiana bat and NLEB	2.50		active season	undocumented
FHWA	Virginia	I-95 FredEx - North of Smith Lake Park (Bat Review)	Indiana bat and NLEB	1.06		active season	undocumented
FHWA	Virginia	0058-101-902,C501 Gilley Ave shoulder widening. (UPC 110879)	Indiana bat and NLEB	3.05		inactive season	undocumented
FHWA	Virginia	104182	Indiana bat and NLEB	0.08		inactive season	undocumented
FHWA	Virginia	UPC 17714 (0624-093- 186, M501, P101, R201) - Happy Creek Road (ECL Front Royal to Rt 645)	Indiana bat and NLEB	0.47		active season	undocumented
FHWA	Virginia	Route 33 Rawley Pike Roadway Construction, Rockingham County	Indiana bat and NLEB	0.28		inactive season	undocumented
FHWA	Virginia	I-81 SBL and NBL Widen to 3 Lanes (UPC 116170)	Indiana bat and NLEB	0.73		inactive season	undocumented
FHWA	Virginia	Rte 33 Rawley Pike Roadway Construction	Indiana bat and NLEB	0.28		inactive season	undocumented
FHWA	Vermont	Johnson STP 030-2(35)	NLEB	0.50		active season	undocumented
FHWA	Vermont	Worcester BF 0241(59)	NLEB		5	active season	undocumented

FHWA	South Dakota	SDDOT P-PH 0385(50)96, PCN 03BD	NLEB	14.07	inactive season	undocumented
FHWA	South Dakota	SDDOT P-PH 0385(51)87, PCN 03VD	NLEB	39.37	inactive season	undocumented
FTA	Indiana	IndyGo Purple Line	Indiana bat and NLEB	0.09	inactive season	undocumented
FTA	Ohio	SARTA – Administrative Building Expansion (LAA)	Indiana bat and NLEB	1.20	inactive season	undocumented
FTA	Wisconsin	Madison Bus Rapid Transit Project	NLEB	0.80	inactive season	undocumented
FTA	Minnesota	Federal Transit Administration (FTA) Link Rapid Transit Project located in Olmsted County, MN 2022-0058010	NLEB	14.4	inactive season	undocumented
FRA	Missouri	Lawrence/Christian County US Route 60 RR Crossing Safety Improvements (7P3433)	Indiana bat and NLEB	1.79	inactive season	undocumented