

FHWA/FRA/FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat WisDOT's Frequently Asked Questions

Why are we changing our Endangered Species Act consultation progress for the northern long-eared bat (NLEB)?

The NLEB is currently listed as threatened. US Fish and Wildlife Service (FWS) has proposed reclassifying the NLEB as endangered. The final listing rule will be effective 3/31/2023. Once the listing is effective, the 4(d) rule and associated 4(d) determination key consultation (which had been on most WisDOT projects), will not longer be valid. The *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key is available now and consultation for NLEB under this process will be valid after the endangered effective date. WisDOT is reconsulting eligible projects under this process. If a project is not eligible, the project must be consulted/coordinated with FWS under the standard processes described in FDM 24-10.10.

Does anything need to be done for existing FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat determinations prior to the proposed endangered listing?

FHWA has indicated that projects that received a "may affect and is likely to adversely affect" (LAA) determination through the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key will need an Incidental Take Statement (ITS) issued for the project. FHWA and FWS are working together to identify these LAA projects and ensure necessary ITSs are issued to avoid project delays. Project by project outreach is occurring.

No updates or changes to existing *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* for other effect determinations (i.e. no effect or may affect but is not likely to adversely affect (NLAA)) have been announced by FHWA/FWS at this time. Guidance will be provided by the WisDOT Ecologist if any new requirements arise.

IPaC/Determination Key

What happens if I delete a 4(d) rule determination in IPaC?

Per FWS, consultation is still considered valid even if the IPaC record is deleted, assuming the following are true: 1) you have retained a digital copy of the verification letter, 2) it is within 1 year of the letter issuance date, and 3) the effective date of the endangered reclassification has not been reached (3/31/2023).

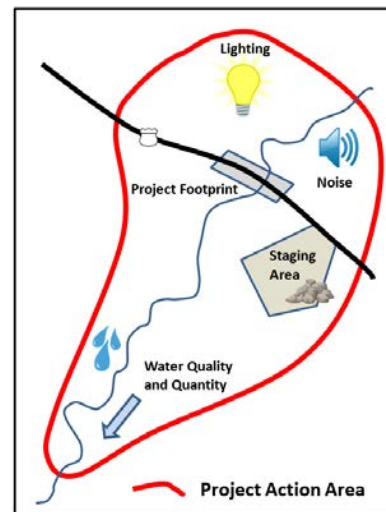
My consistency/verification letter (or past email) states "...Programmatic Biological Opinion for the 4(d) Rule [...] allows you to rely on the PBO for compliance..." Does this mean that I used the "programmatic" key and no additional review is needed?

The 4(d) rule is also based on a programmatic biological opinion (PBO). However, that rule and the PBO it is based on will become in-valid with an endangered listing (3/31/2023). The determination key that we should be consulting on in expectation of that listing is the Programmatic Biological Opinion for Transportation Projects. While the wording in the letters both use the "PBO" language, the determination keys in IPaC are distinctive. The 4(d) rule consultation/key is called in IPaC "Northern Long-Eared Bat (NLEB) Consultation and 4(d) Rule Consistency." The Transportation Programmatic is called in IPaC "*FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat.*"

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Are the activities of concern for NLEB limited to the roadway?

No. The *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key questions must consider the entire action area. The project's action area includes all geographic areas to be affected directly or indirectly by the project and not only the immediate area involved in the action. The project's action area may be larger than the project footprint. Consider how far the effects of noise, light, vibration and other stressors from the proposed action may extend. See figure from the *User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat*.



Can consultants complete the FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat determination key on WisDOT's behalf?

Consultants can be added as a member to existing IPaC projects by WisDOT staff. They can respond to *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key questions and generate consistency letters, but they cannot request concurrence verification from FWS on "may affect" determinations as they are not delegated non-federal representatives. Concurrence verification requests for "may affect" determinations must be submitted to FWS in IPaC by WisDOT staff. FWS concurrence verification is not required for "no effect" determinations and the ESA process is complete for NLEB when the "no effect" consistency letter is generated by a consultant in IPaC.

Habitat

What is the difference between suitable summer habitat, documented habitat and NHI occurrence data?

Suitable habitat means that NLEB *could* be present. Documented habitat and NHI occurrences mean that NLEB are *known* to have been present in those locations. Absence of known locations does not mean there is no suitable summer habitat for NLEB.

Suitable summer habitat consists of a wide variety of forested/wooded habitats where NLEB roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 3 inches 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. NLEB seem to prefer intact mixed-type forests with small gaps (i.e., forest trails, small roads, or forest-covered creeks) in forest with sparse or medium vegetation for foraging and commuting rather than fragmented habitat or areas that have been clear cut. 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.

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Examples of unsuitable habitat:

- Individual trees that are greater than 1,000 feet from forested/wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas); and
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees

Documented roosting or foraging habitat is where NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.

NHI occurrence data consists of known NLEB hibernacula and roosts that are tracked by WDNR in their Natural Heritage Inventory (NHI) database. This data is considered confidential and is provided to WisDOT generalized to the county or township level. NHI reviews conducted by WDNR for initial review letters/updates use NHI occurrence data and, as of May 2022, reviews will use the buffers that coincide with the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key.

Avoidance and Minimization Measures (AMMs)

What are avoidance and minimization measures?

Avoidance and minimization measures (AMMs) are environmental commitments that are agreed upon by WisDOT during completion of the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key. These AMMs must be included in the environmental document as commitments and are implemented during design and construction as appropriate.

How do I determine AMMs are required for my project?

The responses selected during completion of the IPaC *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key dictate which avoidance and minimization measures apply to a project. The agreed upon AMMs are summarized in the verification/consistency letter (PDF) generated by IPaC at the conclusion of the determination key. Some of the AMM language used in the letters appears to be paraphrased. To ensure full AMM is incorporated into commitments, utilize the full text from this document:

<https://www.fws.gov/sites/default/files/documents/appendix-c-avoidance-and-minimization-measures-february-2018.pdf>. Minor rewording or restructuring of the AMM language may be done to ensure it is

incorporated into the environmental document as a firm, actionable commitment. Not all of the AMMs in this document will apply to every project.

What are the key dates for NLEB?

Active season: April 1 – October 31

Maternity roost season: June 1 – July 31

Inactive season: November 1 – March 31

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What options are available if the project schedule does not allow for tree clearing during the NLEB inactive season (November 1 – March 31)?

The following options are in no particular order. Feasibility, usefulness, and cost will vary by project, discuss these options with a REC/CO Ecologist as appropriate:

- Ask county highway departments to remove trees during the inactive season (limits on cost/availability, see REC/maintenance staff)
- Utilize ecological services contract consultant to remove trees during the inactive season
- Proceed with a likely to adversely affect (LAA) determination under the programmatic consultation
- Utilize a contract to conduct a presence/absence survey (if positive for NLEB, then issue remains)
- Conduct visual emergence survey the evening prior to tree removal (very tight timelines and risk to schedule, not recommended)
- Other contracting methods are currently under consideration by regions/CO Ecologist

How do I address conflicting tree clearing windows for NLEB and rusty patched bumble bee (RPBB)?

Tree clearing during the inactive season for NLEB (November 1 – March 31) conflicts with the overwintering period for RPBB (October 10 through April 10), which is usually avoided to minimize impacts to that species. These projects will need to be consulted with FWS due to RPBB. A potential mitigation option to address both species is to have trees manually felled (3-ft high stump allowed) during the NLEB inactive season, but not removed or grubbed. The removal and grubbing would occur during the RPBB active season (April 9 – October 9). FWS must concur with this approach. Other solutions may be possible and can be discussed with the REC/CO Ecologist.

Bridge/Culvert/Structure Inspections

When must inspections be completed?

There is no time of year restriction for inspections; however, inspections during NLEB's active season are preferred. A valid inspection must be used for the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key, which must be completed prior to completion of the environmental document.

How long are inspections valid?

Inspections are valid for 2 years.

Is an inspection required on all bridges/structures/culverts?

Most structures will require inspection. However, there are a couple possible scenarios to avoid the need for inspection:

- If there is no suitable habitat within 1000 ft of the bridge/structure/culvert. Needs confirmation by REC. If bats are observed during construction, all work must stop and coordination with FWS/DNR is required. There is some construction schedule risk associated with this option.

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- Conduct bridge/structure/culvert work only during the inactive season. Other restrictions/mitigation measures may also apply.
- Assume bat presence and then the project activities cannot cause **any** stressors (harass/disturb) to potential bats on the structure (noise, percussives, ect.). This will only be a very limited set of projects (e.g. line painting). Needs confirmation by REC.
- See culvert size question below.

Who can conduct an inspection?

The *Federal Transportation Agency/State Department of Transportation (DOT) Preliminary Guidelines for Using the Bridge/Structure Bat Assessment Form* currently doesn't specify who can complete the inspection. At this time, we are allowing consultants, engineers, RECs, maintenance, interns, LTEs, ect. to complete the inspections, provided they fully understand the features they are supposed to be looking for and that they implement required safety precautions. This could change with updates to the programmatic or future guidance from FWS, but right now this is how we are proceeding.

We are not expecting/asking DNR to conduct bridge/culvert/structure inspections for *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat*. DNR's comments are certainly appropriate for state compliance with state regulations but currently alone cannot be used for the federal programmatic consultation process.

What guidance and training are available for inspectors?

Review the [Bridge/Culvert and Structure Bat Assessment Form Guidance](#). The [USFWS bats and transportation structure inspection video](#) is also a useful and informative training tool.

Do all culverts require inspection?

Only culverts 4-ft or larger need to be inspected for evidence of bat use under the NLEB programmatic. Ensure inspectors follow all required safety precautions. _____

What additional precautions are necessary when working around railroads?

If all necessary elements of the structure can be safely and adequately inspected for evidence of bats using visual aid tools, such as binoculars, and remain further than 25-ft from the track centerline, then railroad coordination is likely not required, but discuss with the REC and region railroad coordinator. If inspection work needs to occur within 25-ft of the track centerline or there are site-specific concerns, discuss requirements with REC and region railroad coordinator. Right-of-entry permits are not required by State Statute. However, railroad coordination and potentially railroad-supplied flaggers may be necessary. Railroad Protective Liability Insurance is needed for non-WisDOT staff conducting inspections. If coordination with the railroad is necessary, allow several weeks lead time. See [FDM 17-55 Property \(wisconsin.gov\)](#) and [FDM 9-10 Public Relations \(wisconsin.gov\)](#).

Bats and/or evidence of bats are found during an inspection, what is the next step?

If bats are present, take photos to aid in species identification. These photos can be shared with the DNR transportation liaison to have DNR experts identify species, if possible.

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If the bat species can successfully be identified and it is determined not to be NLEB, then this information can be used to respond “no” to the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key question asking if there were any signs of NLEBs roosting in/under the structure. No restrictions are necessary for the structure from the federal regulatory perspective. However, minimization measures are required under Wisconsin Endangered Species Law; follow the [cave bat BITP/A](#).

If bats are not found, but bat guano is found, take photos of the guano with a coin for scale. These photos can be shared with the DNR transportation liaison to have DNR experts determine if the samples are from big brown bat or other bats (NLEB included). Distinction between the other bat species cannot be made from guano photos.

If the species cannot be successfully identified from photos of bats or guano, other options such as an emergence survey or guano genetic testing could be completed. These measures will have added cost, timing constraints, and their validity would be subject to approval by FWS. The alternative to undertaking additional studies/investigation is to assume NLEB presence. Discuss options with the REC/CO Ecologist to determine the best course of action for the project. If any bat is observed on a structure, minimization measures are required under Wisconsin Endangered Species Law; follow the [cave bat BITP/A](#).

Environmental Document

Can I use the DNR Delegated Design Concurrence (DDDC) if I'm consulting on NLEB under the FHWA/FRA/FTA programmatic?

For the DDDC, you need to complete the DNR NHI public portal in lieu of requesting an NHI review from DNR.

- If you receive the “no further actions are needed” result, that means that there are no NLEB roosts or hibernaculum within 1 mile of the project area as drawn in the portal. The *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key questions can be accurately answered and the DDDC can be used.

- If you receive the response that the “project meets no/low ITA” under Table 1, section 1-A1,1-A2, 1-C1, 1-C2, 1-C3, 1-C4, 1-C5, 1-C6, 1-C7 or 1-C8 qualifying it for a Broad Incidental Take Authorization, the region environmental coordinator (REC) needs to further screen the project using the NLEB township level data.
 - If the project is not within a shaded township or within 0.5-mile of a shaded township, then no known NLEB roosts or hibernaculum are within 0.5-mile of the project. The programmatic determination key questions can be accurately answered and the DDDC can be used.

 - If the project falls within or adjacent to a shaded township, a full NHI review is needed from the DNR liaison and the DDDC cannot be used. After NHI review has been

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conducted by WDNR, complete NLEB consultation in IPaC using the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key.

Specific Determination Key Questions

How to answer: Does the project include percussives or other activities (not include tree removal/trimming or bridge/structure work) that will increase noise levels above existing traffic/background levels?

Highway traffic noise levels typically range from 70 to 80 dB(A) at a distance of 50 feet from the highway ([Living With Noise | FHWA \(dot.gov\)](#)). Construction equipment and activities can generate noise levels greater than existing traffic sound levels. Some construction equipment is considered percussive. See the table at end of FAQ document for specific information on construction noise levels and percussives.

When completing the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key questions related to noise and percussives, consideration should be given to existing traffic volume and speed, the general noise environment, type of construction activities that will be occurring, whether work will be conducted under road closure (i.e. diminished traffic noise source), and the distance suitable habitat (e.g. trees, structures) is from the source of construction noise.

A noise analysis is not required to respond to this question. Use best judgement and the benefit of the doubt should be given to the species. See flow chart that follows the construction noise table to visualize how responses to the determination key questions affect the project's ability to use the key and effect determinations. The outcome appears dependent on when work will occur (i.e. active season/inactive season/both) and in some situations, if additional stressors occur as a result of the project. The flow chart does not apply to all possible project scenarios; see the accompanying notes within the flow chart.

How to answer: Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

This question is inquiring about projects that have wetland/stream restoration activities as part of their scope. These are compensatory mitigation activities are required by the special conditions of a 404 permit (permittee-responsible mitigation) and not simply aquatic connective improvements incorporated into a project. Most projects will have a "no" response.

How to answer: Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing permanent lighting? and Will the project install new or replace existing permanent lighting?

The first question can be interpreted to mean that the tree removal/trimming is associated with the replacement/installation of lighting (without the lighting work, the trees would not be removed/trimmed). The second question will appear in the determination key regardless of how the

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first one is answered. Any project with lighting replacement/installation should answer “yes” to the second question.

How to answer: Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society[1] to rate the amount of light emitted in unwanted directions?

Yes

How to answer: Will all permanent lighting use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting)?

Yes

Non-Federal Projects

Can I use the FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat determination key for a non-federal project?

No, projects must be funded or authorized by FHWA, FRA, or FTA to be eligible for this specific programmatic consultation determination key.

What are Endangered Species Act (ESA) requirements for non-federal projects?

If there are no federal funds/approvals on the project then ESA Section 7 doesn't apply, thus the consultation requirement doesn't apply. However, WisDOT is still responsible for ensuring that NLEB take does not occur under ESA Section 9 and this may require FWS coordination.

We can informally/internally use effect determinations (since we are familiar with them) to help us figure out the take issue (since that's less familiar). Though, the ultimate determination is either “is not likely to result in NLEB take” or “is likely to result in NLEB take”. If the latter, an incidental take permit is needed (through ESA Section 10 and HCP process). If take is anticipated, please discuss the project further with the REC/CO ecologist.

If the project would fall under the programmatic “no effect” but for the non-federal issue, then the project “is not likely to result in NLEB take”. We document the take decision and justification for NLEB in the environmental document. No outreach to USFWS is needed.

If the project would fall under the programmatic “may affect, not likely to adversely affect” but for the non-federal issue, discuss the project further with the REC/CO ecologist. If it's still unclear if take will likely occur, then coordination with FWS is necessary. See FDM 24-10.1.9 for further guidance.

Borrow/Waste Sites

Are borrow/waste sites covered by the FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat?

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If the borrow/waste location is located within the right of way and it is included in the project's action area for the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key, then it is covered under WisDOT's consultation. All avoidance and minimization measures would also apply to the borrow/waste location.

If WisDOT is directing a contractor to utilize a specific select site (off ROW, privately-owned parcel) and it is included in the project's action area for the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key, then it is covered under WisDOT's consultation. All avoidance and minimization measures would also apply to the select site.

Contractor proposed select sites would not be included in the project's action area for the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key. It is the contractor's responsibility to follow federal/state regulations, conduct required agency coordination, obtain necessary permits/clearances, and follow required avoidance/minimization measures. Non-federal entities, like contractors, are not able to independently utilize the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat* determination key.

Table 5. Construction Noise (L_{eq} at 50 Feet)

(Colors indicate relative sound level: red = extreme, orange = very high; yellow = high; green = moderate; blue = low; purple = very low; mauve = background. Asterisks show impact noise sources.)

	Noise (dBA)			Impact ^a
	Low	High		
Explosives	94	162		*
Rock Blast				*
Pneumatic Tools, Jackhammers & Pile Driver				*
Track Hoe				*
Impact Pile Driver				*
Guardrail Installation and Pile Driving				*
Truck Horn				*
Pile Driving				*
Rock Drill and Diesel Generator				
Rock Drill				
Dump Truck				
Rock Drills and Jackhammers				*
Pneumatic Wrenches, Rock Drills				*
Vibratory (Sonic) Pile Driver				*
Diesel Truck				
Pneumatic Chipper				*
Hydromulcher				
Clam Shovel				
Slurry Machine				
Pneumatic Riveter				*
Circular Saw (hand held)				
Mounted Impact Hammer Hoe-Ram				*
Concrete Saw				
Compressor				
Scraper				
Paver				
Large Truck				
Jackhammer				*
Drill Rig				
Dozer				
Crane				
Pumps, Generators, Compressors				
Front-end Loader				
Large Diesel Engine				
Gradall				
Chain saws				
Road Grader				

	Noise (dBA)		Impact ^a
	Low	High	
Pump	77	85	
Impact Wrench	85	85	*
Concrete Truck	81	85	
Concrete Mixer	80	85	
Auger Drill Rig	85		
Flat Bed Truck	84	84	
Backhoe	80	84	
Generator	52	84	
Ground Compactor	80	82	
Concrete Pump	82	82	
Cat Skidder	81	81	
Roller			
Horizontal Boring Hydraulic Jack	80	80	
Concrete Vibrator	76	76	
Welder		73	
Pickup Truck	55	71	
Yelling	70	70	
Background Sound Level—Forest Habitats	25	44	
Speech (normal)	41	41	

Source: U.S. Fish and Wildlife Service 2006.
^a Impact noise = sudden, loud impulsive sound
dBA =A-weighted decibels

Bat Sounds

Bats produce a variety of sounds both for echolocation and communication. Echolocation calls are generally in the ultrasonic frequency range (>20 kHz), above human hearing, but a few species (e.g., spotted bat [*Euderma maculatum*] and western mastiff bat [*Eumops perotis*]) emit calls that are audible and marginally within the spectral range of traffic noise (Figure 4). Some bat communication calls are also, at least partially, in this lower frequency range. When bats emerge in large numbers from their roosts, they must contend with a cacophony of calls from all the bats exiting at the same time. In contrast, when foraging in the open, they need to move in a sound environment that permits clear reception of the echoes from their calls. Communication calls are most commonly emitted at close range in the roost, but bats also use contact calls while in flight. More detailed descriptions of both of these call types are presented in Section 4, *Bat Echolocation and Communication*.

Noise/Percussive Questions from the FHWA, FRA, FTA Programmatic Consultation for Transportation Projects Affecting NLEB or Indiana Bat Determination Key

Assumptions:

- Within 300 ft of existing road/rail surface
- Not within 0.5 mile of a known hibernacula
- Suitable but undocumented habitat in project area
- Flow chart below was tested under tree removal (inactive season removal), bridge work (no evidence of bats) and without either activities

