



U.S. Department
of Transportation
**Federal Highway
Administration**

Indiana Division

May 3, 2016

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Indianapolis, IN 46204
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<http://www.fhwa.dot.gov/indiv/>

In Reply Refer To:
HDA-IN

Scott Pruitt, Field Supervisor
US Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 47403-2121

Dear Mr. Pruitt,

We are writing to confirm that FHWA and INDOT intend to apply the range-wide informal consultation programmatic agreement for the Indiana bat and northern long-eared bat to transportation projects in Indiana as of June 1, 2016. We will review projects that are currently in informal or formal consultation and apply the range-wide informal consultation programmatic agreement if appropriate. Projects that have completed consultation under existing arrangements will not be reopened unless project impacts change. It is our understanding that limited formal consultation will be approved and ready for implementation in the near future. FHWA and INDOT will update our internal forms and procedures to accommodate the limited formal consultation when practical.

Future projects to which the range-wide informal consultation programmatic agreement cannot be applied, either because the project type is incompatible or because the project details do not allow application of the AMMs, will be subject to project-specific informal or formal consultation, as determined by FHWA and USFWS. We have reviewed the final 4(d) rule for the northern long-eared bat and believe that the range-wide informal consultation programmatic agreement covers all project-level requirements in the rule.

We know that the Service understands that the range-wide informal consultation programmatic agreement creates new obligations for INDOT project development and construction for implementing AMMs. INDOT has developed guidance for the project development process and protocols for suitable habitat investigations and for determining presence or absence of bats in structures and buildings. This guidance will be the basis for our outreach and training efforts with INDOT staff and with the consultant community.

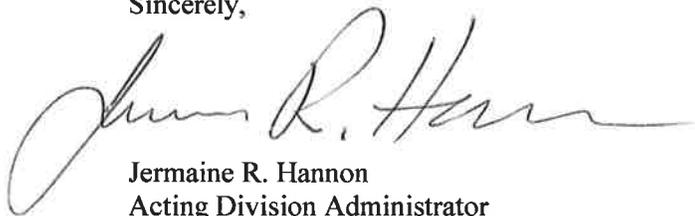
We have attached for your information the materials that we intend to use in our application of the range-wide informal consultation programmatic agreement, as follows:

1. INDOT guidance to the NEPA, design, and construction communities on informal consultation through the range-wide informal consultation programmatic agreement,
2. The USFWS scoping and project submittal forms,
3. INDOT guidance to the NEPA practice community on potentially suitable summer habitat investigations, and

4. INDOT guidance on performing bat presence inspections for bridges, culverts, and buildings.

We welcome any feedback on these materials and ask for your confirmation that the consultation approach outlined above will be sufficient for most projects. If you wish to discuss further, you may contact Michelle Allen with FHWA at (317) 226-7344 or Laura Hilden with INDOT at (317) 232-5018.

Sincerely,

A handwritten signature in black ink, appearing to read "Jermaine R. Hannon". The signature is fluid and cursive, with a large initial "J" and "H".

Jermaine R. Hannon
Acting Division Administrator

Cc

Laura Hilden, INDOT

Ron Bales, INDOT

Sandra Bowman, INDOT

Robin McWilliams Munson, USFWS

Guidance on INDOT Implementation of Range-wide Programmatic Informal Consultation for Indiana Bat and Northern Long-eared Bat

Revised 4/29/2016

Background: The northern long-eared bat was listed as threatened in May 2015. At the time of listing, USFWS had been providing project-specific responses to informal consultation through the early coordination process, essentially following their May 2013 interim policy for project-specific consultation (see the Categorical Exclusion manual form more on this policy). For projects that had already received coordination for the Indiana bat, USFWS agreed in March 2014 to extend that coordination and any resulting project commitments for the Indiana bat to the northern long-eared bat. Since listing, USFWS, FHWA, and FRA have developed a programmatic informal consultation for both species throughout their ranges. The programmatic informal consultation will be implemented for any FHWA or FRA project entering early coordination in Indiana on or after June 1, 2016.

Programmatic informal consultation sets out the analytical considerations and conservation measures which allow a federal project proponent to use informal consultation to satisfy ESA Section 7 requirements for the two species. The project features, impacts analysis, and conservation measures are documented and provided to USFWS. Projects that do not qualify for programmatic informal consultation, either because of project type, project impacts, or inability to implement required conservation measures, may engage in standard informal consultation or full formal consultation with USFWS.

The conservation measures, which are called avoidance and minimization measures (AMMs) in the document, apply to projects according to their impacts. Some AMMs apply during design and others apply during construction. Although INDOT is familiar with many of the AMMs that are standard for projects that might impact Indiana bat habitat, such as the tree clearing restrictions, several of the AMMs are new to the agency and derive from the biological assessment that was prepared in support of programmatic informal consultation.

Many of the new AMMs focus on avoiding take of bats that may be using structures or nearby habitat by requiring information-gathering about the use of these resources by bats both historically and at the time of construction impact. For INDOT and those preparing environmental documents, this means that more detailed analysis is required by the project proponent during the early coordination phase of project development, and that additional field checks are likely to be needed during project development and during construction to manage risk and implement the AMMs.

Managing Risk at Red Flag Investigation: The Red Flag Investigation stage is usually the first indicator of sources of schedule risk due to the environmental setting of a project. To accommodate the new requirements for bats, the RFI form has been revised to include reporting of forested areas and reporting of observations from BIAS and from the USFWS database. The RFI preparer can determine forested areas within ½ mile of the project area by eye from aerials. These areas should be noted in the recommendations as indicating possible presence of suitable summer habitat and possibly requiring further investigation during project development. Data on historical evidence of bats using bridges is available in BIAS, although the provided date of the observation may not be reliable and the absence of an observation should not be interpreted as evidence of the absence of bats. Because USFWS's observation data is only accessible by agreement with specific users, ESD will complete the query of the

database during review. ESD will then report the number of documented foraging areas, roost trees, maternity colonies/trees, hibernacula, and other observation types, and these observations will be noted in the recommendations as requiring further considering during project development. Although the data reported in the RFI will not include specific locations, ESD will store this data in read-only format in ProjectWise for viewing by those with appropriate data access privileges.

If a project appears to have the potential to affect bats, the project manager should complete the USFWS Scoping Worksheet to determine the likely level of required consultation with the USFWS and the likelihood that specific AMMs will restrict schedule and work activities.

Managing Risk During Early Coordination: When presented with a project for early coordination, the preparer should follow the instructions in Section 3.0 of the USFWS programmatic informal consultation users guide (see link below). Data needed to complete the Scoping Worksheet and the Project Information Form are available from several sources and investigations:

1. Refer to the Red Flag Investigation for information on the presence of forested areas and for observation information from USFWS's records. If these resources are not referenced in the RFI, contact ESD.
2. Consult bridge inspection records in BIAS again for updated observations.
3. Complete a Potentially Suitable Summer Habitat Investigation to determine whether forested blocks visible on the aerial should be considered as potentially suitable habitat.
4. Consult the project manager for information about the timing of work and extent of clearing from the project manager

If not already available or if the project has changed, complete the Scoping Worksheet. If the project qualifies for programmatic informal consultation, complete the USFWS Project Submittal Form (see link below)

If a planned project activity could result in an impact, all applicable AMMs for that impact must be carried forward in the NEPA document and commitments database as firm project commitments. An AMM is not applicable only if it pertains to an activity that is not a feature of the project, for example, if there will be no permanent lighting, then Lighting AMM2 does not apply. All other AMMs, no matter how onerous, must be applied to the project if it is to qualify for programmatic informal consultation. Projects that cannot realistically meet the AMM requirements must be transitioned to project-specific informal consultation or to formal consultation. *Discuss with ESD immediately if you suspect that your project will not be able to meet all of the applicable AMMs, so that we can work with project management to develop alternative approaches.*

Project Schedule Risk Management for Project Managers and Construction Staff: Some AMMs for inspecting bridges and buildings for bats prior to initiating work have a high potential to result in construction delays. ESD strongly recommends managing this risk through targeted inspections during project development and construction.

Implementation of AMMs by Project Managers and Designers: AMMs are recorded as firm commitments. Designers should document implementation of AAMs during design on the Commitments Summary Form. Similar to the tree-clearing restriction that has been in place for many years, designers and project managers should pay special attention to AMMs that limit activities to certain times of the year when setting construction schedules or letting dates. Project managers and

designers should contact ESD or district environmental staff if any questions arise about interpretation of AMMs or conflicts with timing of construction activities.

Implementation of AMMs by Construction Staff: AMMs may appear as commitments that are flagged as attention to construction. Some AMMs will require certain activities to be carried out in specific ways, while others may require certain activities only during some times of the year. Construction staff should thoroughly understand any AMMs on their project and supervise implementation of these AMMs by the contractor. Use the INDOT Bridge, Culvert, and Building Bat Presence Inspection Protocol when these activities are required by an AMM.

Scope and Schedule Changes: The impacts of the project to bats as documented at the time of the Environmental Consultation Form must be consistent with the project as described on the USFWS project submittal form included with the latest environmental document. Timesets and construction schedules must be consistent with and must implement the applicable AMMs. Any change in scope, timing of work, extent of habitat impacts, or new information about the presence of bats may trigger recoordination with USFWS and an accompanying additional information document.

Supporting Documents:

1. User's Guide for the Range-wide Programmatic Informal Consultation for Indiana Bat and Northern Long-eared Bat, with appendices:
<http://www.fws.gov/midwest/endangered/section7/fhwa/index.html>
2. INDOT Potentially Suitable Summer Habitat Investigation Protocol
3. INDOT Bridge, Culvert, and Building Bat Presence Inspection Protocol

SCOPING WORKSHEET

INDIANA BAT AND NORTHERN LONG-EARED BAT RANGE-WIDE PROGRAMMATIC INFORMAL CONSULTATION

Complete the following steps to determine whether a project is within the scope of the range-wide programmatic informal consultation and to identify potential project effects on either the Indiana bat or Northern long-eared bat. The following information is needed to complete this form: project scope (including any construction methods to be used), project location, habitat characterization, completed survey results, and Avoidance and Minimization Measures (AMMs) to be included in the project.

STEP 1: PROGRAMMATIC SCOPE (Users Guide p. 3)

If answers to any of these questions are “yes”, the project is NOT covered by the range-wide programmatic informal consultation. Proceed no further in completing this worksheet. Separate consultation with the appropriate Service field office is necessary. If answers to all of the questions are “no”, proceed with Step 2 of this Worksheet.

	Yes	No
1. Will the project construct a new road corridor (new alignment, not minor realignments)?		
2. Will project activities impact suitable forest habitat for bats > 100 feet from existing road/rail surfaces <i>at any time of year</i> (unless summer bat Presence/Probable Absence (P/A) surveys are negative)?		
3. Will the project raise the road profile above the tree canopy within 1,000 feet of known summer habitat (based on documented roosts and/or captures)?		
4. Is the project within 0.5 mile of hibernacula (including Indiana bat critical habitat) and 1) include construction activities extending outside the existing road/rail surface or 2) include construction activities wholly within the existing road/rail service but include percussive or other activities that increase noise above existing traffic/background levels?		
5. Will the project clear suitable forest habitat at any distance from a road during the active season ¹ for bats (unless summer bat P/A surveys are negative)?		
6. Will the project remove documented roosts or foraging areas/travel corridors (based on radio telemetry) <i>at any time of year</i> or remove trees within 0.25 miles of documented roosts <i>at any time of year</i> ?		
7. Bridge Projects <i>at any time of year</i> : (a) Will the project remove a bridge with bat colonies known to be roosting under the bridge? (b) Will the project modify a bridge with bat colonies known to be roosting under the bridge so that it is no longer suitable for roosting?		
8. Will bridge or structure maintenance activities likely disturb bats while bats are documented to be present?		

STEP 2: POTENTIAL PROJECT EFFECTS

No Effect (NE) (User’s Guide p. 4)

If answers to any of the criteria below are “yes” the project will have “No Effect” on the Indiana bat and/or NLEB. Stop here. Document “no effect” on the Project Submittal Form (Appendix B of the User Guide) and retain for your files. No coordination with the Service is required. If answers to any of the criteria below are “no”, proceed with this Worksheet.

should be "all"

Check “NA” if the project will not involve the listed activity or condition.

	Yes	No	N/A
1. Is the project(s) outside the species range, based on USFWS IPaC database?			

¹ Coordinate with the local Service field office for active season dates.

2. Is the project inside the range and outside 0.5 mile of hibernacula, but no suitable summer habitat is present (e.g., high-density urban area or non-forested areas)?			
3. Are all project activities (anywhere, including within 0.5 miles of hibernacula) conducted completely within the existing road/rail surface and <u>do not involve</u> percussive or other activities that increase noise above existing traffic/background levels, such as blasting, use of pile drivers, rock drills, or hoe rams?			
4. Does the project involve maintenance, alteration, or demolition of bridge/structures and <u>the results of a bridge assessment indicate no signs of bats?</u>			
5. Does the project consist of non-construction activities (e.g., bridge assessment, property inspections, property sales, property easements, and equipment purchases)?			

May Affect (MA) (User’s Guide page 4)

If the answer to each of the criteria below is “true”, assume the presence of Indiana bat and/or NLEB. Proceed with this Worksheet.

	True	False
1. Project is in range of species, and		
2. Suitable habitat is present (for foraging, roosting, traveling, hibernating, swarming, nursing or other bat activities), and		
3. No bat surveys have been conducted or surveys are positive for presence of Indiana bat or NLEB.		

If the answers to any of the criteria below are “yes” the project “May Affect” the Indiana bat and/or NLEB. Proceed with Step 3 of this Worksheet.

Does the project action involve any of the following activities?	Yes	No	Unknown
1. Tree removal within suitable habitat			
2. Percussive activities that will increase noise above existing traffic/background levels (e.g., blasting, use of pile drivers, rock drills, or hoe rams)			
3. Increased lighting, either temporary or permanent (e.g., construction lighting or permanent lighting installation as part of project)			
4. Smoke/heat associated with burning brush piles			
5. Impacts to water bodies/wetlands where suitable bat habitat is present (e.g., piping a section of stream)			
6. Bridge or structure maintenance, repair or replacement at sites with bat activity			

STEP 3: AVOIDANCE AND MINIMIZATION MEASURES (User’s Guide page 5-6)

The next sets of questions will step through the process for determining whether a project “May Affect, but is Not Likely to Adversely Affect” the Indiana bat and/or NLEB. Avoidance and Minimization Measures (AMM’s) may be required.

May Affect, Not Likely to Adversely Affect (NLAA)

If answers to any of the questions below are “Yes”, the project “May Affect, but is Not Likely to Adversely Affect” the Indiana bat and/or NLEB, and IS covered by the range-wide programmatic informal consultation. AMM’s are not required for these activities. Document on the Project Submittal Form (Appendix B of the User Guide). If answers to any of these questions are “No” or “Unknown”, proceed with this worksheet.

Do any of the conditions below describe the project?	Yes	No	Unknown
1. Project is inside the range and in or near suitable habitat, but			

with negative bat P/A surveys. *If no bat surveys have been performed check "no" - presence of bats is to be assumed and AMM's will be required.			
2. Work activities will be conducted completely within the existing road/rail surface and <u>involve</u> percussive activities such as blasting and use of pile drivers, rock drills, or hoe rams.			
3. Work activities will take place in areas that contain suitable forested habitat, but no tree removal or habitat alteration will occur (e.g., landscaping rest areas, mowing, brush removal, sign or guardrail replacement, storm water management).			
4. No slash pile burning will occur.			
5. Wetland or stream protection activities associated with mitigation that do not clear suitable habitat.			

May Affect, Not Likely to Adversely Affect - AMMs Required

For the actions below, site-specific AMM(s) may be required to make the project NLAA for either bat species. If there is an applicable AMM, it MUST be implemented for the project to be eligible for use within the range-wide programmatic informal consultation. If an AMM listed below is not applicable (based on the type of action/effect), document why it is not applicable. For some projects, additional project-specific AMM(s) not listed below may be needed. If such additional AMM(s) are implemented, document them.

	Yes	No
TREE REMOVAL		
Will the project remove trees that are suitable maternity, roosting, foraging, or traveling habitat for Indiana Bat or NLEB? <i>If "No", proceed to next activity.</i>		
1. Will tree removal <i>at any time of year</i> occur <u>entirely</u> within 100 feet of existing road surface? (Note: If "no", this action is not covered under the range-wide programmatic Informal consultation. Proceed no further with worksheet. Separate consultation with the appropriate Service field office is necessary.)		
2. Will documented roosts or foraging habitat (based on radio telemetry) be removed <i>at any time of year</i> ? (Note: If "yes", this action is not covered under the range-wide programmatic informal consultation. Proceed no further with worksheet. Separate consultation with the appropriate Service field office is necessary.)		
3. Will trees be removed within 0.25 miles of documented roosts <i>at any time of year</i> ? (Note: If "yes", this action is not covered under the range-wide programmatic informal consultation. Proceed no further with worksheet. Separate consultation with the appropriate Service field office is necessary.)		
Unless current surveys document that the species are not present, all of the AMMs listed below will be applied, unless not relevant (e.g., no bridge work will occur). Indicate on the project submittal form which of the following tree removal AMMs will be implemented.		
TREE REMOVAL AMM 1: Modify all phases/aspects of project (e.g. temporary work areas, alignments) to avoid tree removal in excess of what is required to implement project safely. (Note: If this cannot be applied, project can still be MANLAA as long as removal is in winter and avoids known roosts.)		
TREE REMOVAL AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present.		
TREE REMOVAL AMM 3: Ensure tree removal is limited to that specified in project plans. Install bright orange flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits. Ensure that contractors understand the clearing limits and how they are marked in the field.		

TREE REMOVAL AMM 4: Avoid cutting down documented bat roosts that are still suitable for roosting or documented foraging habitat <i>at any time of year</i> . Avoid cutting down trees within 0.25 miles of documented roosts <i>at any time of year</i> . Ensure that suitable roosts remain on the landscape rather than focusing on general forest loss.		
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*Note: "Trees" refers to trees that are suitable habitat for each species.

LIGHTING	Yes	No
1. Will the project involve the use of lighting during construction? <i>If "No", proceed to next activity.</i>		
2. Will the project action install permanent lighting? <i>If "No", proceed to next activity.</i>		
If the answer to either of above is "yes", indicate on the project submittal form which lighting AMM's will be implemented.		
LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during construction.		
LIGHTING AMM 2: Use downward-facing, full cut-off lens lights, and direct lighting away from suitable habitat when installing new or replacing existing permanent lights.		

BRIDGE MAINTENANCE, ALTERATION OR REMOVAL	Yes	No
Does the project involve bridge maintenance, removal or other alteration? <i>If "No", proceed to next activity.</i>		
Unless current surveys or inspections document that the species are not present, the AMMs listed below will be applied, as appropriate. Indicate on the project submittal form which of the following AMMs will be implemented.		
BRIDGE AMM 1: Perform any bridge repair, retrofit, maintenance, and/or rehabilitation work outside of the active season. ²		
BRIDGE AMM 2: Bridge repair, retrofit, maintenance, and/or rehabilitation work outside of pup season (June 1 – July 31) will occur in the evening while the bats are feeding, starting one hour after sunset, and ending one hour before daylight excluding the hours between 10 pm and midnight. Lighting must be kept localized (See lighting AMM).		
BRIDGE AMM 3: If bridge repair, retrofit, maintenance, and/or rehabilitation work alters the bridge during the inactive season, then ensure suitable roosting sites remain after any bridge work. Suitable roosting sites may be incorporated into the design of a new bridge.		

STRUCTURE (ARTIFICIAL ROOSTS) MAINTENANCE, ALTERATION OR REMOVAL	Yes	No
Does the project involving any artificial roost such as a building, barn, shed, mobile home, telephone poles or other structure?		
Unless current surveys or inspections document that the species are not present, the AMMs listed below will be applied, as appropriate. Indicate on the project submittal form which of the following AMMs will be implemented.		
STRUCTURE AMM 1: If the goal of the project is to exclude bats, coordinate with the local Service field office.		
STRUCTURE AMM 2: Perform any maintenance and/or repair work outside of the active season.		
STRUCTURE AMM 3: If maintenance and/or repair work will be performed during the		

² Coordinate with the local Service field office for active season dates.

<p>active season, determine if work will occur in an area with roosting bats. If so, coordinate with the local Service field office. If bat activity or signs of frequent bat activity are observed, avoid work or install bat exclusions or similar structure alteration during the active season, unless there are concerns about human health/safety/property and coordinate with the local USFWS Field Office and a nuisance wildlife control officer.</p>		
<p>STRUCTURE AMM 4: If bat activity or signs of frequent bat activity are observed, avoid structure removal unless there are concerns about human health/safety/property and coordinate with the local Service field office and a nuisance wildlife control officer.</p>		

A project that involves these activities and implements all applicable AMMs “May Affect, but is not likely to Adversely Affect” the Indiana bat and/or NLEB. With the implementation of the applicable AMMs, the project IS covered by the range-wide programmatic informal consultation. Document on the Project Submittal Form (Appendix B of the User Guide).

Worksheet Prepared By: _____
Name (Please print) Firm/Organization Date

Worksheet Reviewed By: _____
Name (Please print) Firm/Organization Date

**Federal Highway Administration (FHWA) and Federal Railroad Administration (FRA)
Range-wide Programmatic Informal Consultation for
Indiana Bat and Northern Long-eared Bat**

Project Submittal Form for FHWA, FRA, and Transportation Agencies
Updated June 23, 2015

In order to use the programmatic informal consultation to fulfill Endangered Species Act consultation requirements, transportation agencies must use this form to submit project-level information for all may affect, not likely to adversely affect (NLAA) determinations to the appropriate U.S. Fish and Wildlife Service (Service) field office prior to project commencement. For more information, see the Standard Operating Procedure for Site Specific Project(s) Submission in the User's Guide.

In submitting this form, the transportation agency ensures that the proposed project(s) adhere to the criteria of the range-wide programmatic informal BA. Upon submittal of this form, the appropriate Service field office may review the site-specific information provided and request additional information. If the applying transportation agency is not notified within 14 calendar days of emailing the Project Submittal Form to the Service field office, it may proceed under the range-wide programmatic informal consultation.

Further instructions on completing the form can be found by hovering your cursor over each text box.

1. Date:

2. Lead Agency:

This refers to the Federal governmental lead action agency initiating consultation; select FHWA or FRA as appropriate

3. Requesting Agency:

a. Name:

b. Title:

c. Phone:

d. Email:

4. Consultation Code¹:

5. Project Name(s):

¹ Available through IPaC System Official Species List: <https://ecos.fws.gov/ipac/>

6. Project Description:

Please attach additional documentation or explanatory text if necessary

7. Other species from Official Species List:

No effect – project(s) are inside the range, but no suitable habitat – see additional information attached

May Affect – see additional information provided for those species (either attached or forthcoming)

8. For Ibat/NLEB, if Applicable, Explain Your No Effect Determination

No effect – project(s) are outside the species' range (*form complete*)

No effect – project(s) are inside the range, but no suitable summer habitat (*form complete*)

No effect from maintenance, alteration, or demolition of bridge(s)/structure(s) – results of inspection surveys indicate no signs of bats. (*form complete*)

No effect – other (*see Section 2.2 of the User's Guide – form complete*)

Otherwise, please continue below.

9. Affected Resource/Habitat Type

Trees

Bridge

Other Non-Tree Roosting Structure (e.g., building)

Other (please explain):

10. For Tree Removal Projects:

- a. Please verify that no documented roosts or foraging habitat will be impacted and that project is within 100 feet of existing road surface:
- b. Please verify that all tree removal will occur during the inactive season²:
- c. Timing of clearing:
- d. Amount of clearing:

11. For Bridge/Structure Work Projects:

- a. Proposed work:
- b. Timing of work:
- c. Evidence of bat activity on bridge/structure:
- d. If applicable, verify that superstructure work will not bother roosting bats in any way:
- e. If applicable, verify that bridge/structure work will occur only in the winter months:

² Coordinate with local Service field office for appropriate dates.

12. Please confirm the following:

Proposed project(s) adhere to the criteria of the range-wide programmatic informal BA (see Section 2.0).

All applicable AMMs will be implemented, including³:

Tree Removal AMM 1:

Dust Control AMM 1:

Tree Removal AMM 2:

Water Control AMM 1:

Tree Removal AMM 3:

Water Control AMM 2:

Tree Removal AMM 4:

Water Control AMM 3:

Bridge AMM 1:

Water Control AMM 4:

Bridge AMM 2:

Water Control AMM 5:

Bridge AMM 3:

Water Control AMM 6:

Bridge AMM 4:

Wetland/Stream Protection AMM 1:

Structure AMM 1:

Wetland/Stream Protection AMM 2:

Structure AMM 2:

Wetland/Stream Protection AMM 3:

Structure AMM 3:

Wetland/Stream Protection AMM 4:

Structure AMM 4:

Wetland/Stream Protection AMM 5:

Lighting AMM 1:

Wetland/Stream Protection AMM 6:

Lighting AMM 2:

³ See AMMs Fact Sheet (Appendix B) for more information on the following AMMs.

INDOT Potentially Suitable Summer Bat Habitat Investigations

Revised 4/29/2016

Part A: Background and Guidelines

Suitable summer habitat is any area that bats could use for foraging or roosting. For purposes of applying the range-wide informal consultation for Indiana and northern long-eared bats to INDOT projects, INDOT will usually seek to identify potentially suitable habitat through desktop and field surveys rather than documenting foraging or roosting use by bats.

Impacts to suitable summer habitat may adversely affect Indiana bats or northern long-eared bats. The presence of forested areas near the project may already have been noted in the Red Flag Investigation. A desktop survey is performed during the NEPA process to identify potentially suitable summer habitat that may be impacted by the project. Field surveys may resolve inconclusive results from the desktop survey. Field investigations for the presence or absence of particular bat species should only be undertaken after further coordination with ESD and USFWS.

Part B: Investigation Procedures

Desktop Survey: The desktop survey should be performed by a practitioner with a natural resource degree or suitable work experience; certification to perform NEPA work for INDOT should be sufficient.

First, from current aerials, identify and sum the acreage of the following cover types within project limits and between the project limits and a buffer 100 feet from the edge of the existing road surface:

1. Forest/woodlots, both dense and loose
2. Wetlands by likely type
3. Old fields and pastures
4. Woody fencerows and hedgerows
5. Number of buildings of any type

Second, either use the existing Red Flag Investigation results or request a new query of the USFWS database to locate observations of bats by species in and near the project area. Observations should be treated as evidence of bat use of the habitat.

Complete USFWS Scoping Worksheet and, if indicated, the USFWS project submittal form. Provide the USFWS Project Information Form to INDOT ESD for review; INDOT will provide to USFWS. Record the data sources and results in the NEPA document and attach both USFWS forms. Identify the type of effect as outlined in the range-wide informal consultation. Apply the requirements of the range-wide informal consultation to the project if applicable.

Field Survey: At the direction of ESD, the field survey should be performed by a practitioner who meets INDOT's prequalification criteria for Ecological Studies. If undertaken, the survey should identify and

describe the following: 1) within project limits and 2) between the project limits and a buffer 100 feet from the edge of the existing road surface:

1. Forest/woodlots, both dense and loose: Describe DBH, species, and identify suitable roost trees.
2. Wetlands by type: provide data consistent with waters report
3. Old fields: describe vegetation
4. Pastures: describe vegetation
5. Fencerows and hedgerows: describe vegetation and DBH of trees
6. Buildings: type and approximate condition

Complete USFWS Scoping Worksheet and, if indicated, the USFWS project submittal form. Provide the USFWS Project Information Form to INDOT ESD for review; INDOT will provide to USFWS. Record the data sources and results in the NEPA document and attach the form. Identify the type of effect as outlined in the range-wide informal consultation programmatic agreement. Apply the requirements of the range-wide informal consultation programmatic agreement to the project if applicable.

INDOT Bridge, Culvert and Building Bat Presence Inspection Protocol
Revised 4/29/2016

Part A: Background and Guidelines

The federal Endangered Species Act prohibits take of listed species, which means that threatened and endangered species cannot be harassed, harmed, hunted, shot, wounded, killed, trapped, captured or collected, and no attempts to engage in any such conduct can be taken. The Indiana bat (*Myotis sodalis*) is listed as endangered and the northern long-eared bat (*Myotis septentrionalis*) is listed threatened.

The purpose of this protocol is to identify bridges, culverts, and buildings that are being used by Indiana bats and northern long-eared bats prior to initiating the construction or demolition activities that could result in take. Both kinds of bats are known to roost under bridges and small structures and in buildings during certain times of the year. These kinds of structures are therefore the targets for the use of this protocol. These target structures may or may not be called out in the plans.

Identification of these structures is necessary for implementing the avoidance and minimization measures in the USFWS Rangelwide Programmatic Information Consultation. For bridges, the project manager or PE/PS may rely on bat presence data in BIAS if it indicates that the inspection was conducted within 12 months of the likely start of activities on that bridge. This protocol should be used if the data in BIAS is missing or insufficient, and for all culverts and buildings. It may also be used to collect an additional data to supplement BIAS.

Part B: Inspection Procedures for Bridges and Culverts

1. Target structures for inspection are all bridges and all culverts. There is no minimum size or length.
2. The inspection shall be performed by INDOT staff or an agent authorized by INDOT.
3. The inspection shall be performed during full daylight hours, which is when bats are most likely to be roosting (i.e., from one hour after sunrise to one hour before sunset).
4. The inspection shall include the entire underside of the bridge and ceiling of the culvert along the entire length of the structure. Recommended equipment includes a high-powered flashlight, binoculars, and camera.
5. Written documentation of the inspection should be collected and provided to the project supervisor. At a minimum documentation shall include:
 - a. Date and time of inspection.
 - b. Location and designation of the structure (structure number, name, and station location).
 - c. Type of structure.
 - d. Approximate number of bats observed and drawings of their locations.
 - e. Photographs of structure
 - f. Photographs of bats if observed, for identification (ideally a wide photo for location, a side photo of the body, and a photograph of the face).
 - g. Upstream and downstream photographs from each opening.

Part C: Inspection Procedures for Buildings

1. Target structures are any buildings or man-made structures that could host roosting bats.. These may include but are not necessarily limited to single and multiple family residences, detached garages, wooden barns, sheet metal pole barns, silos, yard barns and other out buildings.
2. Target structures that are to be demolished during the active season shall be inspected for the presence of bats or signs of bat use prior to demolition.
3. The inspection shall be conducted by INDOT staff or an agent authorized by INDOT.

4. The inspection shall be conducted during full daylight hours, which is when bats are most likely to be roosting (i.e., from one hour after sunrise to one hour before sunset).
5. The inspection shall cover both internal (including attics and lofts) and external (including porches, shutters, chimneys, loose siding, etc.) features of the structure.
6. Written documentation of the inspection should be collected and provided to the project supervisor. At a minimum documentation shall include:
 - a. Date and time of inspection.
 - b. Land acquisition code, state parcel number, address, and other identification information
 - c. For each target structure on the parcel:
 - i. Type of structure.
 - ii. Description and photographs of potential points of entry by bats into the structure.
 - iii. Approximate number of bats observed and drawings of their locations.
 - iv. Description of signs of bat use and drawings of their locations
 - v. Photographs of structure
 - vi. Photographs of bats observed.
7. If no bats are observed, written documentation shall be provided to the project manager and note made in the project commitments. If after letting, written documentation shall be provided to the project supervisor and the project manager.
8. If bats or signs of bat use are observed, the INDOT project manager or other INDOT point of contact shall suspend and planned demolition and immediately contact ESD to determine how to proceed with coordination with USFWS.

INDOT Bridge/Small Structure Bat Inspection Data Sheet (Rev 4/29/2016)

General Information		
Date of Inspection:	Initial Inspection <input type="checkbox"/>	Temp:
Time of Inspection:	Follow-up Inspection <input type="checkbox"/>	Wind:
County:	Construction <input type="checkbox"/>	Precip:
Inspected by:		Sunrise: Sunset:
GPS Northing: Easting: UTM Zone: 16	Contract Number:	Anticipated Start Date for Construction:

Bridge or Culvert	Bridge or Culvert
Stream or Road Crossed:	Station:
Bridge/Culvert number:	Number of Spans:
Type of Structure: <input type="checkbox"/> Concrete box beam <input type="checkbox"/> Steel beam <input type="checkbox"/> Concrete I-beam <input type="checkbox"/> Steel girder <input type="checkbox"/> Concrete bulb tee beam <input type="checkbox"/> Steel pony truss <input type="checkbox"/> Concrete arch <input type="checkbox"/> Welded steel thru girder <input type="checkbox"/> Concrete girder <input type="checkbox"/> Concrete box culvert <input type="checkbox"/> Concrete slab <input type="checkbox"/> Concrete pipe <input type="checkbox"/> Multi-plate arch <input type="checkbox"/> Corrugated steel pipe <input type="checkbox"/> Other (list):	Material: <input type="checkbox"/> Concrete <input type="checkbox"/> Steel <input type="checkbox"/> Other (describe): Shape: <input type="checkbox"/> Box Culvert <input type="checkbox"/> Pipe <input type="checkbox"/> Arch <input type="checkbox"/> Slab <input type="checkbox"/> Other (describe)
Searched entire structure? If not, why not?	Location of bats or signs of use (w/drawing and photos):
Bats Present? <input type="checkbox"/> Seen? <input type="checkbox"/> Heard?	
In Clusters? Number of clusters:	
Number of bats in largest cluster:	
Approximate total number of bats found:	
Signs of previous bat use? <input type="checkbox"/> Guano <input type="checkbox"/> Staining	

If Bats Present
Date and Time Project Supervisor was notified:
Name of Project Supervisor notified:

For bridges and culverts, provide plan, longitudinal and cross section views as appropriate.



INDOT Building Bat Inspection Data Sheet (Rev. 4/29/2016)

General Information		
Date of Inspection:	Initial Inspection <input type="checkbox"/>	Temp:
Time of Inspection:	Follow-up Inspection <input type="checkbox"/>	Wind:
County:		Precip:
Inspected by:		Sunrise: Sunset:
GPS Northing: Easting: UTM Zone: 16	Contract Number:	Scheduled Demolition Date:
Street Address	LA Code	State Parcel ID

Draw the position of each building on the parcel and give each building a number. Indicate North. A labeled aerial may be used instead—attach.

Building Number:	
Type of Structure: <input type="checkbox"/> Residence <input type="checkbox"/> Detached garage <input type="checkbox"/> Metal pole barn <input type="checkbox"/> Wood sided barn <input type="checkbox"/> Shed <input type="checkbox"/> Open-sided shelter <input type="checkbox"/> Commercial Bldg <input type="checkbox"/> Industrial Bldg <input type="checkbox"/> Other (describe):	
Check: loose siding, shutters, eaves, interior and exterior gaps between building components, and attic.	
Estimated building height:	Location of bats or signs of use (w/drawing and photos):
Searched entire building? If not, why not?	
Bats Present? <input type="checkbox"/> Seen? <input type="checkbox"/> Heard?	
In Clusters? Number of clusters:	
Number of bats in largest cluster:	
Approximate total number of bats found:	
Signs of bat use? <input type="checkbox"/> Guano <input type="checkbox"/> Staining	

Date:

LA Code:

Parcel ID:

Sheet Number:

Building Number:	
Type of Structure: <input type="checkbox"/> Residence <input type="checkbox"/> Detached garage <input type="checkbox"/> Metal pole barn <input type="checkbox"/> Wood sided barn <input type="checkbox"/> Shed <input type="checkbox"/> Open-sided shelter <input type="checkbox"/> Commercial Bldg <input type="checkbox"/> Industrial Bldg <input type="checkbox"/> Other (describe):	
Check: loose siding, shutters, eaves, interior and exterior gaps between building components, and attic.	
Estimated building height:	Location of bats or signs of use (w/drawing and photos):
Searched entire building? If not, why not?	
Bats Present? <input type="checkbox"/> Seen? <input type="checkbox"/> Heard?	
In Clusters? Number of clusters:	
Number of bats in largest cluster:	
Approximate total number of bats found:	
Signs of previous bat use? <input type="checkbox"/> Guano <input type="checkbox"/> Staining	
Building Number:	
Type of Structure: <input type="checkbox"/> Residence <input type="checkbox"/> Detached garage <input type="checkbox"/> Metal pole barn <input type="checkbox"/> Wood sided barn <input type="checkbox"/> Shed <input type="checkbox"/> Open-sided shelter <input type="checkbox"/> Commercial Bldg <input type="checkbox"/> Industrial Bldg <input type="checkbox"/> Other (describe):	
Check: loose siding, shutters, eaves, interior and exterior gaps between building components, and attic.	
Estimated building height:	Location of bats or signs of use (w/drawing and photos):
Searched entire building? If not, why not?	
Bats Present? <input type="checkbox"/> Seen? <input type="checkbox"/> Heard?	
In Clusters? Number of clusters:	
Number of bats in largest cluster:	
Approximate total number of bats found:	
Signs of previous bat use? <input type="checkbox"/> Guano <input type="checkbox"/> Staining	
Building Number:	
Type of Structure: <input type="checkbox"/> Residence <input type="checkbox"/> Detached garage <input type="checkbox"/> Metal pole barn <input type="checkbox"/> Wood sided barn <input type="checkbox"/> Shed <input type="checkbox"/> Open-sided shelter <input type="checkbox"/> Commercial Bldg <input type="checkbox"/> Industrial Bldg <input type="checkbox"/> Other (describe):	
Check: loose siding, shutters, eaves, interior and exterior gaps between building components, and attic.	
Estimated building height:	Location of bats or signs of use (w/drawing and photos):
Searched entire building? If not, why not?	
Bats Present? <input type="checkbox"/> Seen? <input type="checkbox"/> Heard?	
In Clusters? Number of clusters:	
Number of bats in largest cluster:	
Approximate total number of bats found:	
Signs of previous bat use? <input type="checkbox"/> Guano <input type="checkbox"/> Staining	

If Bats Present in any building on parcel	
Date and Time Project Manager was notified:	
Name of Project Manager notified:	