

Sincerely,



Brock N. Ervin
Environmental Manager
Indiana Department of Transportation
Crawfordsville District
(765) 361-5669
bervin@indot.in.gov

Attachments:

Maps (Location Map, Topographic Map, and Aerial Map)
Project Site Photographs and Photo Orientation Maps
Preliminary Plans (excerpts)

Cc List:

Federal Highway Administration, Indiana Division
USACE, Louisville Office (Indianapolis Regulatory Field Office)
National Park Service, Midwest Regional Office
US Dept. of Housing and Urban Development, Chicago Regional Office
National Resources Conservation Service, Indiana State Office
Indiana Department of Natural Resources, Division of Fish and Wildlife
Indiana Department of Environmental Management, Wetlands and Stormwater Programs
Terre Haute Area Metropolitan Planning Organization
Vigo County Commissioners
Vigo County Council
Vigo County Highway Department
Vigo County Surveyor's Office
Vigo County Soil & Water District
Vigo County Area Planning Department (Floodplain Administrator)
US Fish and Wildlife Service (Online IPaC Submission)
Indiana Department of Environmental Management, Groundwater Division (Online Database Review)
Indiana Geological & Water Survey (Online Submission Form)

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR#: ER-25988

Request Received: October 3, 2023

Requestor:

Brock Ervin
Indiana Department of Transportation
41 West 300 North
Crawfordsville, IN 47933

Project:

SR 159 small structure (CV 159-084-23.30) replacement over UNT Splunge Creek, 4.15 miles north of SR 246; Des #2002197

County/Site Info: Vigo County

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment:

Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

Natural Heritage Database:

The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish and Wildlife Comments:

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

A) Riparian Habitat

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <https://www.in.gov/nrc/files/IB-17.pdf>.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing trees that are 10" diameter-at-breast height (dbh) or greater by planting five trees, 1" to 2" in dbh, for each tree which is removed that is 10" dbh or greater. Seeding and

stabilizing disturbed areas is required regardless of the impact amount and location. If floodway impacts to forested wetland and non-wetland habitat areas combine to be 0.10 acres or more, mitigation should be done and coordinated with the biologist, as needed.

The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

B) Stream Crossing Design

Bridges are preferred over culverts, and three-sided culverts are preferred over box or pipe culverts. Multiple culverts or culverts with multiple openings are not recommended for approval. These types of structures are often problematic for fish and wildlife passage as they tend to accumulate debris and become blocked. If box and pipe culverts are used, the culvert bottoms should be sumped a minimum of 6" (or 20% of the culvert height or diameter, whichever is greater up to a maximum of 2') below the stream bed elevation. Sumping is not required for bridges or three-sided culverts. Crossings must span the entire channel width (a minimum of 1.2 times the ordinary high-water mark width). Crossings must maintain the natural stream substrate within the structure (natural stream substrate must be replaced in sumped box and pipe culverts up to the existing flowline). Scour protection at the inlet and outlet must not extend above the existing flowline elevation. Stream depth, channel width and water velocities in the crossing structure during low-flow conditions must approximate those in the natural stream channel.

The replacement crossing structure, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. Bank lines must be maintained or restored within structures to allow for wildlife passage above the OHWM. All wildlife passage designs must include a smooth level pathway a minimum of 1-3 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area.

There are several techniques and materials for incorporating wildlife passage into the design of a crossing structure if maintaining or restoring banklines is not possible. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage:

<https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems>

<https://www.fs.usda.gov/wildlifecrossings/library/index.php>

https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/

<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>

C) Riprap Aprons

Any riprap placed at the culvert's outlet/inlet needs to be installed at grade (or countersunk then backfilled with native material). The slope of the riprap should match the stream's gradient. Riprap needs to be mixed with smaller stone and fines to match the existing stream substrate particle distribution and provide impermeability of the riprap apron/substrate so the flow doesn't percolate through the voids below the riprap apron's surface.

D) Streambank Stabilization

Some form of bank stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques and allow a vegetated stream bank to develop. A variety of methods to accomplish this include planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources: Geotextiles (erosion

control blankets and/or turf reinforcement mats that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles); Vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high-water mark (OHWM) with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Southern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. Information about bioengineering techniques can be found at the following link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: https://efotg.sc.gov.usda.gov/references/public/IA/Chapter-16_Streambank_and_Shoreline_Protection.pdf.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Southern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits in-channel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.
9. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
10. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

Our agency appreciates this opportunity to be of service. Please contact me at RVanVoorhis@dnr.IN.gov or (317) 232-8163 if we can be of further assistance.

Rachel Van Voorhis

Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

Date: November 2, 2023

October 16, 2023

Brock Ervin
41 West 300 North
Crawfordsville, Indiana 47933

Dear Mr. Ervin:

The proposed highway project, located on SR 159 in Vigo County, Indiana (Des. No. 2002197), as referred to in your letter received on October 3, 2023, will cause a conversion of prime farmland.

The attached packet of information is for your use competing Parts VI and VII of the AD-1006. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact John Allen at 317-295-5859 or john.allen@usda.gov.

Sincerely,

JOHN ALLEN
State Soil Scientist

Enclosers

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 10/3/2023			
Name of Project Des 2002197 SR 159, UNT to Splunge		Federal Agency Involved FHWA			
Proposed Land Use Transportation		County and State Vigo Co., Indiana			
PART II (To be completed by NRCS)		Date Request Received By NRCS		Person Completing Form: JRA	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size 252 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 209398% 81	Amount of Farmland As Defined in FPPA Acres: 19548% 74			
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 10/16/2023			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		0.551			
B. Total Acres To Be Converted Indirectly		0			
C. Total Acres In Site		0.551			
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		0.55			
B. Total Acres Statewide Important or Local Important Farmland		0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		46			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)		77			
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)	15		
2. Perimeter In Non-urban Use		(10)	10		
3. Percent Of Site Being Farmed		(20)	1		
4. Protection Provided By State and Local Government		(20)	0		
5. Distance From Urban Built-up Area		(15)	15		
6. Distance To Urban Support Services		(15)	15		
7. Size Of Present Farm Unit Compared To Average		(10)	10		
8. Creation Of Non-farmable Farmland		(10)	0		
9. Availability Of Farm Support Services		(5)	5		
10. On-Farm Investments		(20)	1		
11. Effects Of Conversion On Farm Support Services		(10)	0		
12. Compatibility With Existing Agricultural Use		(10)	0		
TOTAL SITE ASSESSMENT POINTS		160	72	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	77	0	0
Total Site Assessment (From Part VI above or local site assessment)		160	72	0	0
TOTAL POINTS (Total of above 2 lines)		260	149	0	0
Site Selected: A		Date Of Selection 11/3/2023		Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
Reason For Selection: No other alternatives were considered because it is a bridge project on the current alignment of SR 159, and a bridge replacement is preferred due to being the longest lasting option and providing the most cost benefits. Based on the impact rating, impacts to farmland are reasonable.					
Name of Federal agency representative completing this form: Brock Ervin, INDOT Crawfordsville DE					Date: 11/3/2023

(See Instructions on reverse side)

Form AD-1006 (03-02)



Organization and Project Information

Project ID:

Des. ID: Des. No. 2002197

Project Title: SR 159 Small Structure Project at UNT to Splunge Creek, Vigo County

Name of Organization: Indiana Dept. of Transportation

Requested by: Brock Ervin

Environmental Assessment Report

1. Geological Hazards:

- Moderate liquefaction potential

2. Mineral Resources:

- Bedrock Resource: High Potential
- Sand and Gravel Resource: None documented in the area

3. Active or abandoned mineral resources extraction sites:

- Surface Coal Mines

*Map layers from the [Indiana Geological and Water Survey](#) and [Indiana Map](#)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

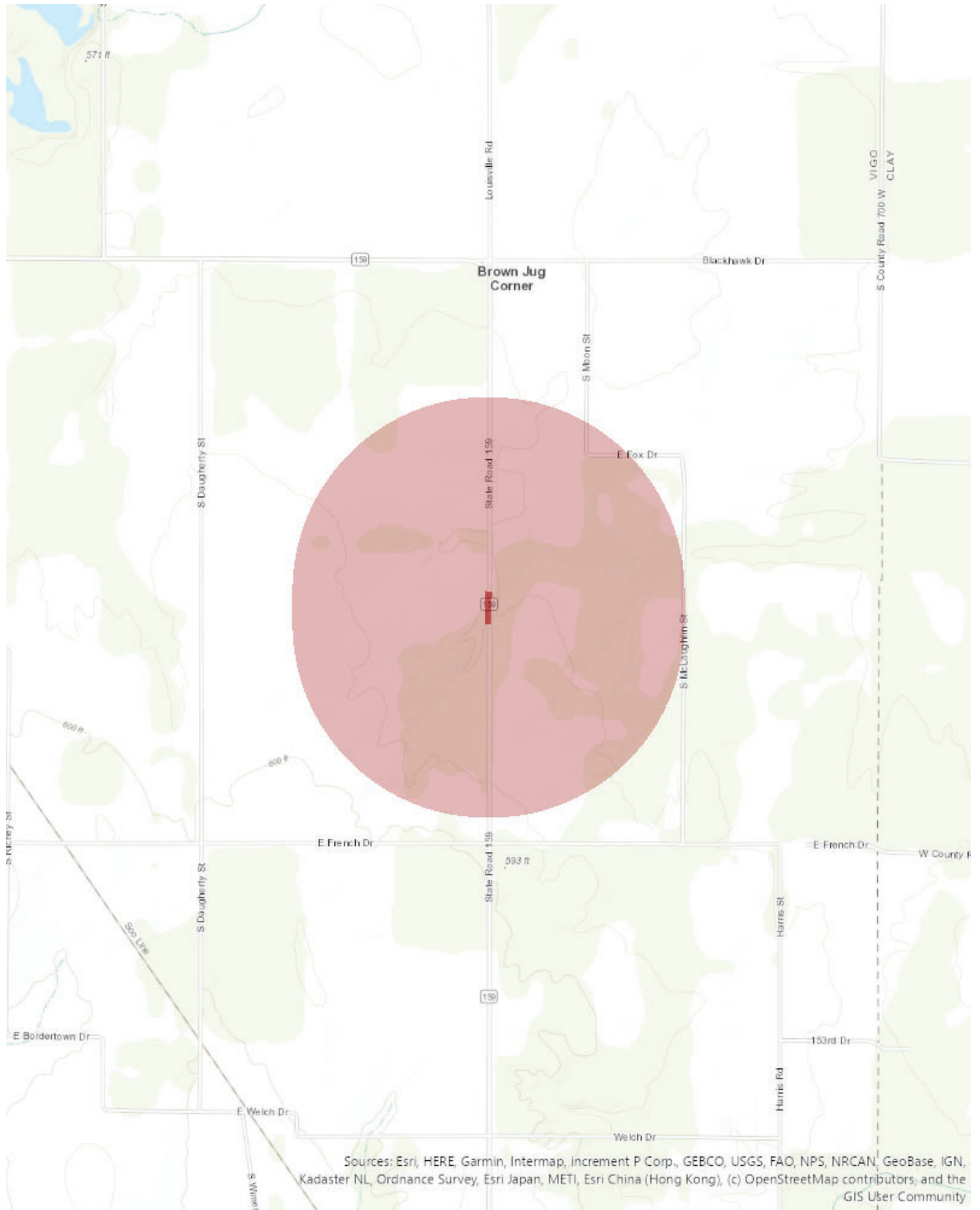
This information was furnished by Indiana Geological Survey

Address: 420 N. Walnut St., Bloomington, IN 47404

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: October 02, 2023



Ervin, Brock

From: Neild, Benjamin
Sent: Monday, October 2, 2023 9:24 AM
To: Ervin, Brock
Cc: Kurtz, Randy
Subject: RE: 2002197 0.5-Mile Bat Check Request

Good morning,

A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula, and capture sites was conducted for Des No. 2002197 on 10/2/2023. There are no documented sites within a half mile of the project area. The USFWS Information for Planning and Conservation (IPaC) website must be consulted and a new project created to obtain an official species list and complete the project questionnaire to determine the programmatic consultation's applicability. The IPaC-generated documents must be forwarded to the USFWS for verification if needed.

Benjamin Neild

Environmental Manager 2, Capital Program Management Division

41 West 300 North

Crawfordsville, IN 47933

Phone: (765) 361-5259

Email: bneild@indot.in.gov



From: Ervin, Brock <BErvin@indot.IN.gov>
Sent: Thursday, September 28, 2023 2:33 PM
To: Neild, Benjamin <BNeild@indot.IN.gov>
Subject: FW: 2002197 0.5-Mile Bat Check Request

Also, Ben, just in case you draw the short straw, here are the files.

Brock Ervin > He/Him/His

Environmental Manager

Capital Program Management Division

Crawfordsville District, INDOT

41 West 300 North

Crawfordsville, IN 47933

Office: (765)361-5669

Email: bervin@indot.in.gov





United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:

October 02, 2023

Project Code: 2024-0000072

Project Name: Des. 2002197 - SR 159 Culvert at UNT to Splunge Creek, 4.15 Miles North of SR 246, Vigo County

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/>

[s7process/index.html](#). This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both

migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

PROJECT SUMMARY

Project Code: 2024-0000072
Project Name: Des. 2002197 - SR 159 Culvert at UNT to Splunge Creek, 4.15 Miles North of SR 246, Vigo County
Project Type: Culvert Repair/Replacement/Maintenance
Project Description: The Indiana Department of Transportation (INDOT) has programmed a federally funded project, Des. No. 2002197, in order to address the deteriorated condition of a small structure located on SR 159 in Vigo County, 4.15 miles north of SR 246 (RP 23+38). The small structure, CV 159-084-23.30, carries SR 159 over an unnamed tributary (UNT) to Splunge Creek.

The project is needed due to the poor condition of the culvert, which is a set of twin corrugated metal pipes. The most recent culvert inspection report of October 6, 2022, issued a culvert rating of 4 out of 9 (poor condition). The purpose of this project is to maintain a structurally sound crossing of SR 159 over UNT to Splunge Creek and increase the condition rating to at least 7 (good condition).

The project is situated in a rural area where land use is primarily for agriculture and scattered residential properties. The culvert is located along the headwater segment of UNT to Splunge Creek, which is surrounded by a wooded riparian corridor where the stream is approximately 14 feet wide. The tributary outfalls into Splunge Creek approximately three miles downstream of the project area, where it almost immediately outfalls into Eel River.

The existing structure, CV 159-084-23.30, consists of twin corrugated metal pipe arches (CMPAs), each measuring approximately 8.5 feet (103 inches) wide, 6 feet (71 inches) tall, and 47 feet long. The culvert is at a 0° skew to the road and sits under approximately three feet of fill. Log debris has also built up on the upstream side to the west, restricting flow and increasing erosion at the inlet. While scattered pieces of riprap are present near the inlet and outlet of the culvert, it is mostly washed away or covered in sediment. The channel is scoured at both ends of the culvert.

The preferred alternative is to replace it with a new 54-foot long, precast, reinforced concrete, four-sided box culvert with a 16-foot span and a 6-foot rise. The culvert will be constructed with 12 to 15-foot wingwalls in all four quadrants. Approximately 0.04 acre of riprap will be installed at the inlet and outlet, extending out between the wingwalls approximately 22 to 25 feet. The areas behind the wingwalls will be backfilled, and the ditches will be realigned around them. The project has a total length of 400 feet.

To complete the project, the acquisition of approximately 0.90 acre of right-of-way is required, based on the existing right-of-way limits at the edge of pavement. Proposed right-of-way extends 200 feet from both sides of the culvert north and south along SR 159 and 60 feet east and west from the roadway centerline. Approximately 0.47 acre of ground disturbance will occur within the construction limits. A road closure is planned during construction. Construction is expected to start in the fall of 2024 and last approximately three to four months.

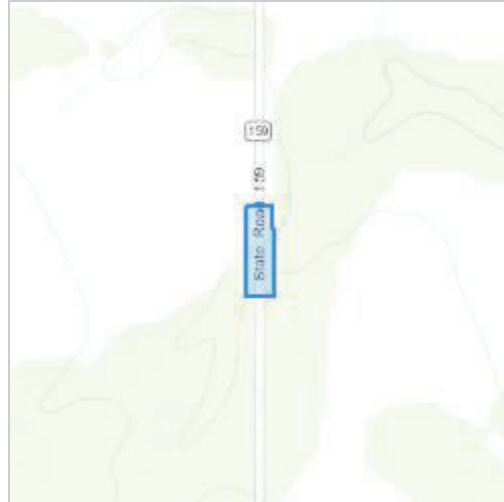
Approximately 110 feet of UNT to Splunge Creek will be impacted. One palustrine emergent wetland is partially located within the project limits and impacts will be less than 0.01 acre. Approximately 0.15 to 0.2 acre of tree clearing, based on canopy, is expected.

Suitable summer habitat for bats is considered to be present due to the adjacent woodlands and stream. INDOT conducted a review of the USFWS database for documented roosting, capture, and hibernacula sites of federally listed bat species on October 2, 2023. None were identified. On August 25, 2022, INDOT district environmental staff conducted a field investigation for the presence or indications of bats roosting or occupying the culverts or pipes within the project area. None were observed.

Construction is planned to begin during the fall of 2024, with tree clearing to occur during the winter season. No permanent lighting will be required. The need for temporary lighting for nighttime construction has not been determined, but will be assumed for purposes of coordination.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.2970952,-87.25897564989958,14z>



Counties: Vigo County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

CLAMS

NAME	STATUS
Salamander Mussel <i>Simpsonaias ambigua</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

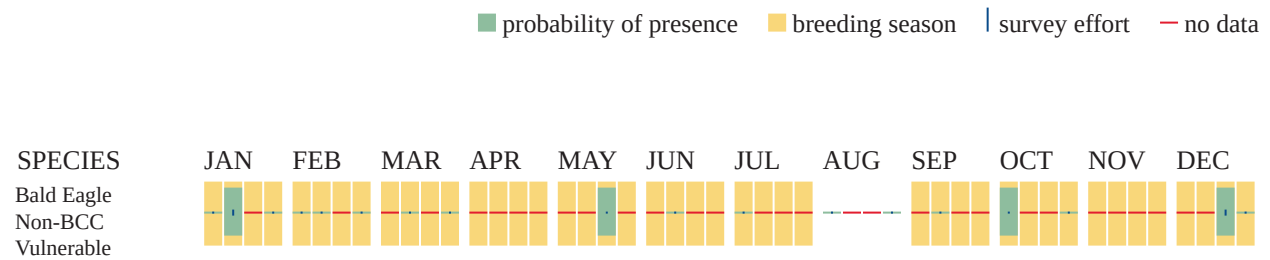
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Sep 1 to Jul 31
<p>Chimney Swift <i>Chaetura pelagica</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 15 to Aug 25
<p>Field Sparrow <i>Spizella pusilla</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 1 to Aug 15
<p>Lesser Yellowlegs <i>Tringa flavipes</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p> <p>https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></p> <p>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds elsewhere

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1A](#)

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Brock Ervin
Address: 41 W 300 N
Address Line 2: INDOT Crawfordsville District
City: Crawfordsville
State: IN
Zip: 47933
Email: bervin@indot.in.gov
Phone: 7653615669

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:

November 17, 2023

Project code: 2024-0000072

Project Name: Des. 2002197 - SR 159 Culvert at UNT to Splunge Creek, 4.15 Miles North of SR 246, Vigo County

Subject: Concurrence verification letter for the 'Des. 2002197 - SR 159 Culvert at UNT to Splunge Creek, 4.15 Miles North of SR 246, Vigo County' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated November 17, 2023 to verify that the **Des. 2002197 - SR 159 Culvert at UNT to Splunge Creek, 4.15 Miles North of SR 246, Vigo County** (Proposed Action) may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to section 7(a)(2) of ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances,

Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessment documented signs of bat use or occupancy, or an assessment failed to detect Indiana bats and/or NLEBs, yet are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of any potential take. In these instances, potential incidental take of Indiana bats and/or NLEBs is covered under the Incidental Take Statement in the 2018 FHWA, FRA, FTA PBO (provided that the take is reported to the Service).

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge/culvert or structure assessments failed to detect Indiana bats and/or NLEB use or occupancy, yet bats are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate
- Salamander Mussel *Simpsonias ambigua* Proposed Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

Des. 2002197 - SR 159 Culvert at UNT to Splunge Creek, 4.15 Miles North of SR 246, Vigo County

DESCRIPTION

The Indiana Department of Transportation (INDOT) has programmed a federally funded project, Des. No. 2002197, in order to address the deteriorated condition of a small structure located on SR 159 in Vigo County, 4.15 miles north of SR 246 (RP 23+38). The small structure, CV 159-084-23.30, carries SR 159 over an unnamed tributary (UNT) to Splunge Creek.

The project is needed due to the poor condition of the culvert, which is a set of twin corrugated metal pipes. The most recent culvert inspection report of October 6, 2022, issued a culvert rating of 4 out of 9 (poor condition). The purpose of this project is to maintain a structurally sound crossing of SR 159 over UNT to Splunge Creek and increase the condition rating to at least 7 (good condition).

The project is situated in a rural area where land use is primarily for agriculture and scattered residential properties. The culvert is located along the headwater segment of UNT to Splunge Creek, which is surrounded by a wooded riparian corridor where the stream is approximately 14 feet wide. The tributary outfalls into Splunge Creek approximately three miles downstream of the project area, where it almost immediately outfalls into Eel River.

The existing structure, CV 159-084-23.30, consists of twin corrugated metal pipe arches (CMPAs), each measuring approximately 8.5 feet (103 inches) wide, 6 feet (71 inches) tall, and 47 feet long. The culvert is at a 0° skew to the road and sits under approximately three feet of fill. Log debris has also built up on the upstream side to the west, restricting flow and increasing erosion at the inlet. While scattered pieces of riprap are present near the inlet and outlet of the culvert, it is mostly washed away or covered in sediment. The channel is scoured at both ends of the culvert.

The preferred alternative is to replace it with a new 54-foot long, precast, reinforced concrete, four-sided box culvert with a 16-foot span and a 6-foot rise. The culvert will be constructed with 12 to 15-foot wingwalls in all four quadrants. Approximately 0.04 acre of riprap will be installed at the inlet and outlet, extending out between the wingwalls approximately 22 to 25 feet. The areas behind the wingwalls will be backfilled, and the ditches will be realigned around them. The project has a total length of 400 feet.

To complete the project, the acquisition of approximately 0.90 acre of right-of-way is required, based on the existing right-of-way limits at the edge of pavement. Proposed right-

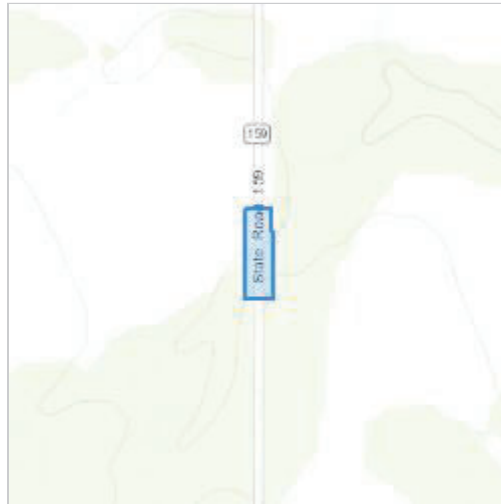
of-way extends 200 feet from both sides of the culvert north and south along SR 159 and 60 feet east and west from the roadway centerline. Approximately 0.47 acre of ground disturbance will occur within the construction limits. A road closure is planned during construction. Construction is expected to start in the fall of 2024 and last approximately three to four months.

Approximately 128 feet of UNT to Splunge Creek will be impacted. One palustrine emergent wetland is partially located within the project limits and impacts will be less than 0.02 acre. Approximately 0.35 to 0.40 acre of tree clearing, based on canopy, is expected.

Suitable summer habitat for bats is considered to be present due to the adjacent woodlands and stream. INDOT conducted a review of the USFWS database for documented roosting, capture, and hibernacula sites of federally listed bat species on October 2, 2023. None were identified. On August 25, 2022, INDOT district environmental staff conducted a field investigation for the presence or indications of bats roosting or occupying the culverts or pipes within the project area. None were observed.

Construction is planned to begin during the spring of 2025, with tree clearing to occur during the previous winter season. No permanent lighting will be required. The need for temporary lighting for nighttime construction has not been determined, but will be assumed for purposes of coordination.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.297095299999995,-87.25897565014611,14z>



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the northern long-eared bat^[1]?

[1] See [northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) *Federal Highway Administration (FHWA)*

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

No

11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} **within** the suitable habitat located within your project action area?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

[3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

[4] Negative presence/probable absence survey results obtained using the [summer survey guidance](#) are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry triangulation/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.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry triangulation/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.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

Yes

19. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

No

20. Are *all* trees that are being removed clearly demarcated?
Yes
21. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?
No
22. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?
No
23. Does the project include slash pile burning?
No
24. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?
Yes
25. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

26. Has a bridge assessment^[1] been conducted **within** the last 24 months^[2] to determine if the bridge is being used by bats?

[1] See [User Guide Appendix D](#) for bridge/structure assessment guidance

[2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

Yes

SUBMITTED DOCUMENTS

- *INDOT Bat Inspection 8-25-22 Print.pdf* <https://ipac.ecosphere.fws.gov/project/D2JRFOFNE5C3DBXYKL7W7AYBSA/projectDocuments/132683445>

27. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)^[1]?

[1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

No

28. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

No

29. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

30. Will the project involve the use of **temporary** lighting *during* the active season?

Yes

31. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

Yes

32. Will the project install new or replace existing **permanent** lighting?

No

33. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

No

34. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

35. Will the project raise the road profile **above the tree canopy**?

No

36. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

Automatically answered

Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO

37. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

38. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

39. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

40. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

41. Tree Removal AMM 1

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

42. Tree Removal AMM 3

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

43. Tree Removal AMM 4

Can the project avoid cutting down/removal of *all* (1) **documented**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

[1] The word documented means habitat where bats have actually been captured and/or tracked.

[2] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or 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.)

Yes

44. Lighting AMM 1

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

N/A

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

N/A

3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.4

4. Please describe the proposed bridge work:

Replace twin pipe culvert with a box culvert

5. Please state the timing of all proposed bridge work:

Winter 2024 to Fall 2025

6. Please enter the date of the bridge assessment:

8/25/2022

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or **documented** foraging habitat any time of year.

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on July 27, 2023. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion \(dated March 23, 2023\) for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Brock Ervin
Address: 41 W 300 N
Address Line 2: INDOT Crawfordsville District
City: Crawfordsville
State: IN
Zip: 47933
Email: bervin@indot.in.gov
Phone: 7653615669

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Ervin, Brock

From: York-Allen, Tammy <Tammy.York-Allen@VigoCounty.IN.Gov>
Sent: Monday, December 4, 2023 3:53 PM
To: Ervin, Brock
Subject: Re: Vigo County ADA Transition Plan (INDOT Des. No. 2002197)

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Brock,

We do have an ADA plan. It was finalized October 2019. I thought we had it put online but I looked and can't find it. I will work on getting it put on there.

If you have any questions please do not hesitate to contact me.

Have a great evening,

Tammy York Allen
Commissioners Administrator
812-231-6200

From: Ervin, Brock <BErvin@indot.IN.gov>
Sent: Tuesday, November 21, 2023 11:55 AM
To: York-Allen, Tammy <Tammy.York-Allen@VigoCounty.IN.Gov>
Subject: Vigo County ADA Transition Plan (INDOT Des. No. 2002197)

Good morning, Tammy.

I work with INDOT, and I'm preparing the environmental document for a project on SR 159 in the southeast, rural part of the Vigo County, and I need to report on the ADA transition plan. I was not able to find the plan online. I saw that there was a notice of availability for the plan, so I'm sure it exists.

Would you please confirm that the plan exist, and if it's accessible online?

This project is a small structure replacement at UNT to Splunge Creek along a rural part of SR 159, so it will certainly have no effect on ADA or your plan, but if you find out otherwise, please let me know.

Thank you.

Brock Ervin > He/Him/His
Environmental Manager
Capital Program Management Division
Crawfordsville District, INDOT
41 West 300 North
Crawfordsville, IN 47933
Office: (765)361-5669

Appendix D: Section 106 Documentation

Minor Projects Programmatic Agreement Documentation (10/6/2023)..... D-1 – D-8

SECTION 1

Submittal of this form is only required for projects where Category B applies. Projects qualifying under Category A do not require submittal of this form. SECTION 2 (for Conditions of Category B.1 for curb/sidewalk) or SECTION 3 (for Conditions of Category B.9 for drainage structures) may be required as determined by INDOT-Cultural Resources Office (INDOT-CRO) review. INDOT-CRO will notify applicant if the Minor Projects PA does not apply.

Part 1: Project Information-Completed by Applicant (Consultant/PM/Project Sponsor/INDOT District Staff)*

**A qualified professional historian (QP) is not required to complete Part I INDOT-Cultural Resources Office (INDOT-CRO) staff will be responsible for completion of Part II.*

Original Submission Date: 11/30/2022

Amended Submission Date*:

**Consult with INDOT-CRO to determine whether an amendment is required. For revisions/updates to original form, please detail in applicable sections below. Please use red font to distinguish the revisions/updates.*

Submitted By (Provide Name and Firm/Organization):

Brock Ervin
INDOT, Crawfordsville District

Project Designation Number: 2002197

Route Number: SR 159

Feature crossed (if applicable): UNT to Splunge Creek

City/Township: Pierson Civil Township

County: Vigo County

Project Description:*

**Provide a full project description—include the same level of specificity and detail as expected in the NEPA document—in order to ensure a timely review by INDOT-CRO staff. For bridge and culvert projects, include specific details on the rehab or replacement including potential changes to width, height and materials. Be sure to include the specific elements listed below as applicable.*

The Indiana Department of Transportation (INDOT) has programmed a federally funded project, Des. No. 2002197, in order to address the deteriorated condition of a small structure located on SR 159 in Vigo County, 4.15 miles north of SR 246 (RP 23+38). The small structure, CV 159-084-23.30, carries SR 159 over an unnamed tributary (UNT) to Splunge Creek.

The project is needed due to the poor condition of the culvert. An 8-foot long segment of the culvert floor has rusted out along the west end of the south pipe, and rust holes are scattered throughout the bottoms of both pipes. The most recent culvert inspection report of October 6, 2022, issued a culvert rating of 4 out of 9 (poor condition). The purpose of this project is to maintain a structurally sound crossing of SR 159 over UNT to Splunge Creek and increase the condition rating to at least 7 (good condition). This project is considered a small structure replacement, as only replacement alternatives were considered during the scoping process for this project.

SR 159 over UNT to Splunge Creek is located in the southeast corner of Vigo County, approximately 13 miles southeast of Terre Haute and 8 miles east of Clay City. Specifically, the project is located in Pierson Civil Township, Sections 23 and 24 of Township 10 North, Range 8 West, and in the USGS 7.5-Minute Lewis Quadrangle.

The project is situated in a rural area where land use is primarily for agriculture and scattered residential properties. The culvert is located along the headwater segment of UNT to Splunge Creek, which is surrounded by a wooded riparian corridor where the stream is approximately 14 feet wide. Splunge Creek outfalls into Eel River approximately three miles downstream of the project area.

This segment of SR 159 is a two-lane road with 11-foot lanes, no paved shoulders, and narrow gravel shoulders. The roadway is straight and mostly flat, and no guardrail is present within the project area. V-shaped vegetated roadside ditches are present to the south of the structure, but north of the structure, ditches are inconsistent, poorly defined, and vegetated. The existing right-of-way is at the edge of roadway pavement.

The existing structure, CV 159-084-23.30, consists of twin corrugated metal pipe arches (CMPAs), each measuring approximately 8.5 feet (103 inches) wide, 6 feet (71 inches) tall, and 47 feet long. The culvert is at a 0° skew to the road and sits under approximately three feet of fill. In addition to corrosion along the bottoms of the pipes, the east anchor headwall has deteriorated and become detached. The channel is rated in fair condition (5) due to erosion on the east bank on both sides of the culvert. Log debris has also built up on the upstream side to the west, restricting flow and increasing erosion at the inlet. While scattered pieces of riprap are present near the inlet and outlet of the culvert, it is mostly washed away or covered in sediment. The channel is scoured at both ends of the culvert.

The preferred alternative to address the deteriorated culvert is to replace it with a new culvert. The proposed plans will replace it with a 16-foot wide, 6-foot tall, 54-foot long, precast, reinforced concrete, four-sided box culvert. The culvert will be installed at a 0° skew and will be sumped into the channel one foot, creating a vertical opening of five feet. The culvert will be constructed with wingwalls extending 12 to 15 feet from the corners in all four quadrants. Approximately 0.04 acre of riprap will be installed at the inlet and outlet, extending out between the wingwalls approximately 22 to 25 feet. The areas behind the wingwalls will be backfilled, and the ditches will be realigned around them.

The culvert will be replaced via an open road cut. Afterwards, 200 feet of roadway above the culvert (100 feet north and 100 feet south of the culvert) will be reconstructed to full-depth. The remaining roadway approaches out to 200 feet on either side of the culvert will be milled 2 inches and resurfaced to tie into the new pavement. Two-foot gravel shoulders will be reconstructed, and road embankments and ditches will be regraded. The project has a total length of 400 feet.

To complete the project, the acquisition of up to 0.90 acre of right-of-way is required. The proposed right-of-way extends 200 feet from both sides of the culvert north and south along SR 159 and 60 feet east and west from the roadway centerline. The total proposed right-of-way footprint is 400 feet along the roadway and 120 feet wide. Approximately 0.47 acre of ground disturbance will occur within the construction limits. Construction limits taper from approximately 25 to 30 feet at the termini of the project limits out to a maximum of approximately 50 feet near the culvert inlet and out.

A road closure is planned during construction. Traffic will be maintained by a detour along SR 246, US 150, SR 641, and SR 46. The total detour length adds approximately 21.0 miles to the distance travelled. Construction is expected to start in the fall of 2024 and last approximately three to four months.

Approximately 110 feet of UNT to Splunge Creek will be impacted by the culvert replacement and installation of riprap. One wetland is located within the project limits, which is contained in the poorly formed roadside ditch in the northeast quadrant, approximately 150 feet from the culvert. Wetland impacts incurred by the project have not yet been determined but will be expected to be less than 0.01 acre. Approximately 0.16 acre of tree clearing, based on canopy, will be required.

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work: No curbs, curb ramps, or sidewalk work will occur during this project.

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type:

Structure Type: Twin 8.5' x 6' CMPA Culvert

Structure crossed: UNT to Splunge Creek

Structure number: CV 159-084-23.30

NBI number: N/A

For bridge projects, is the bridge included in INDOT's Historic Bridge Inventory (<https://www.in.gov/indot/2531.htm>)?

Yes No N/A

If yes, did the inventory determine the bridge eligible for or listed in the National Register of Historic Places? Please provide page # of entry in Historic Bridge Inventory.

Yes No

Inventory Page # _____

Will there be right-of-way acquisition as part of this project?

Yes No

If yes was checked above, please check all that apply:

Permanent Temporary Reacquisition

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way:

Existing right-of-way is the edge of pavement. Approximately 0.9 acre of new permanent right-of-way is required. Proposed right-of-way extends 200 feet from both sides of the culvert north and south along SR 159 and 60 feet east and west from the roadway centerline. The total proposed right-of-way footprint is 400 feet along the roadway and 120 feet wide.

Is there any potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.?

Yes* No

*This is not anticipated based on the current design but has not yet been ruled out.

Archaeology (check one):

All proposed activities are presumed to occur in previously disturbed soils*
**INDOT-CRO will notify you if project area includes undisturbed soils and requires an archaeological reconnaissance.*

Project takes place in undisturbed soils and the archaeology report is included in submission or will be forthcoming*
** If an archaeology report is required, the Minor Projects PA Form will not be finalized until the report is reviewed and approved by INDOT-CRO. For INDOT-sponsored projects, INDOT-CRO may be able to complete the archaeological investigation. If you would like to request that INDOT-CRO complete an archaeological investigation, please contact the INDOT-CRO archaeology team lead. See CRM Pt. 1 Ch. 3 for current contact information.*

Please specify all applicable categories and condition(s) (highlight applicable conditions in yellow)*:

**Include full category text, including any conditions. INDOT-CRO will finalize categories upon their review.*

Category A:

4. Roadway work associated with surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking within previously disturbed soils where replacement, repair, or installation of curbs, curb ramps or sidewalks will not be required.
9. Installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils.

Category B:

9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below [***BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied***]:

Condition A (Archaeological Resources)

One of the two conditions listed below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- a. Work occurs in previously disturbed soils; *OR*
- b. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

One of the conditions below must be met (*EITHER Condition i or Condition ii must be satisfied*):

- i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions (*Condition a, Condition b, or Condition c must be satisfied*):
 - a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 - b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 - c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met (*BOTH Condition 1 AND Condition 2 must be met*):
 1. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.
- ii. Work involves the installation of a new culvert and other drainage structures *AND/OR* there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions (*BOTH Condition a and Condition b must be satisfied*):
 - a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 - b. The subject structure exhibits one of the characteristics described below (*Condition 1, Condition 2*

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or Condition 3 must be satisfied).

1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

Check if SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission is included

Check if SECTION 3: Minor Projects PA Category B-9, Condition B-i-c-2 or B-ii-b-3 Submission is included

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Part II: Completed by INDOT-CRO

Amendments will be shown in red font.

Information reviewed (please check all that apply):

- General project location map USGS map Aerial photograph Soil survey data
General project area photos Archaeology Reports Historic Property Reports
Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report
Bridge inspection information/BIAS Historic Bridge Inventory Database
SHAARD SHAARD GIS Streetview Imagery County GIS Data/Property Cards

Other (please specify): Multiple Property Documentation Form (MPDF) *Residential Planning and Development in Indiana, 1940-1973* (2018; Higgins)

Blum, KayLee

2023 Phase Ia Archaeological Reconnaissance for the Proposed SR 159 Small Structure Replacement, 4.15 m North of SR 246, Pierson Township, Vigo County, Indiana (INDOT Des. No. 2002197). Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, IN.

Are there any commitments associated with this project? If yes, please explain and include in the Additional Comments Section below. yes no

Does the project result in a de minimis impact to a Section 4(f) protected historic resource? If yes, please explain in the Additional Comments Section below. yes no

Additional Comments:

Above-ground Resources

An INDOT-CRO historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 An INDOT-Cultural Resources Office (CRO) historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Vigo County. No listed resources are present within 0.15 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Vigo County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBM). All sites were reviewed through the IHBBM, which contains the most recently updated SHAARD information. No IHSSI-surveyed resources are recorded within 0.15 mile of the project.

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register eligible, although they would

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contribute to a historic district. If they retain material integrity, properties rated “notable” might possess the necessary level of significance after further research. Properties rated “outstanding” usually possess the necessary level of significance to be considered National Register eligible if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

Land surrounding the project area is rural and surrounded by agricultural fields. Areas of dense woods are present and are associated with the presence of UNT Splunge Creek. At the subject structure location, both sides of the SR 159 roadway are lined with heavy tree growth and vegetation, which limits views of the project location. The INDOT-CRO historian reviewed structures adjacent to the project area utilizing online aerial, street-view photography, and the Vigo County GIS website. One (1) c.-1971 mobile home is the only above-ground structure within 0.15 mile of the project location that is now--or that will be--50 years old or older by the proposed 2024 project letting. For the purposes of this determination, the c.-1971 mobile home does not appear to meet the *Residential Planning and Development in Indiana, 1940-1973* requirements to be individually eligible to the National Register. No other above-ground resources are recorded within 0.15 mile of the project location.

According to BIAS data, the subject structure (CV 159-084-23.30) is comprised of twin 8.5 X 6.5 corrugated metal pipes (CMPs). The structure’s date of construction is not known. Based on an examination of the BIAS report and included photographs, the structure exhibits no wood, stone, or brick structures or parts therein. In addition, there is no evidence to suggest that the structure possesses historical or engineering significance.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

Archaeological Resources

An INDOT-CRO archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61 conducted an archaeological records check and Phase Ia reconnaissance survey of the project area (Blum 2023). A review of SHAARD and SHAARD GIS indicated that four sites have been previously recorded within or adjacent to the survey area and that the project area has not been previously investigated.

A 1.1-acre survey area was examined through a combination of systematic shovel probing (n=13), pedestrian survey, and visual inspection of disturbed areas. The area encompassing the intersection of SR 159 has been previously disturbed from the original construction of the state road, existing culvert, embankments, an extant residential infrastructure, and buried utilities. The northwest quadrant of the survey area was pedestrian surveyed in two transects spaced 5 m apart in a recently rain-washed agricultural field with at least 80 percent visibility. The other quadrants were shovel tested at 15 m intervals in heavy vegetation forests and a grassy field. No archaeological sites were documented as a result of the survey and no further investigation is recommended (Blum 2023).

Therefore, there are no archaeological concerns as long as the project scope and footprint do not change.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Division of Natural Resources-Division of Historic Preservation and Archaeology (DNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Susan Branigin, Matt Coon, and KayLee Blum

INDOT Approval Date: 10/6/2023

Amendment Approval Date (if applicable):

Minor Projects PA Project Submittal and Assessment Form

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

Please attach the following to this form:

- **General Location Map.** This map should allow the INDOT-CRO reviewer to quickly locate the project.
- **Aerial photography map(s) of project area.** This map must include project limits. It may also include SHAARD data, but SHAARD data is not required.
- **If bridge or small structure project, please attach photographs of bridge or small structure.** Photographs can be found in inspection reports located in INDOT's Bridge Inspection Application System (BIAS), as well as other project documents, such as engineering assessments or mini-scopes.

Map depicting potential temporary and/or permanent right-of-way acquisitions. In the email submission to INDOT-CRO, please also include:

- **A GIS polygon shapefile or KMZ file of the project area** (shapefiles are preferred). Shapefiles should use "NAD_1983_UTM" projected coordinate system. In addition, these files should contain the following *text* attribute field: DES_NO. The project designation number should be entered in this field.
- **If the project takes place in undisturbed soils, attach the results of the archaeological investigation, if completed.** *Note: The MPPA Submission Form may be submitted before the archaeology report. INDOT-CRO staff will process the above-ground portion of the form in advance of the archaeological portion of the form. However, a completed determination form will not be returned to the applicant until after the archaeology report has been reviewed and approved by INDOT-CRO.*

Appendix E: Red Flag Investigation Report

Red Flag Investigation Report Text (Concurrence: 7/25/2023)	E-1 – E-5
RFI Infrastructure Map.....	E-7
RFI Water Resources Map	E-8
RFI Mining/Mineral Resources Map.....	E-9



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: July 25, 2023

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Ryan Silvers
INDOT Crawfordsville DE
41 West 300 North
Crawfordsville, Indiana
rysilvers@indot.in.gov

Re: RED FLAG INVESTIGATION
DES # 2002197, State Project
Small Structure Replacement
SR 159 over Unnamed Tributary (UNT) to Splunge Creek, 4.15 Miles North of SR 246
Vigo County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: INDOT has programmed a Federally funded project (Des. No. 2002197) to address the deteriorating condition of a small structure located on SR 159. The project includes the removal of the existing culvert (CV 159-084-23.30), which will be replaced in kind with a new culvert. The existing asphalt approaches will be milled 2" and resurfaced.

Bridge Work Included in Project: Yes No Structure #(s) _____

If this is a bridge project, is the bridge Historical? Yes No , Select Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Culvert Work Included in Project: Yes No Structure #(s) CV 159-084-23.30

Proposed right of way: Temporary # Acres _____ Permanent # Acres .90 Not Applicable

Type and proposed depth of excavation: Excavation depth will vary across the culvert replacement area and will generally vary from 10 to 30 feet, dependent on location. All excavation will occur in previously disturbed soils.

Maintenance of traffic (MOT):

Work in waterway: Yes No Below ordinary high-water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: Approximately 110 feet of UNT to Splunge Creek will be impacted by the culvert replacement and installation of riprap. One wetland is located within the project limits, contained in the poorly formed roadside ditch in the northeast quadrant, approximately 150 feet from the culvert. Wetland impacts incurred by the project have not yet been determined but will be expected to be less than 0.01 acre. Approximately 0.16 acres of tree clearing, based on the canopy, will be required.

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	N/A	Recreational Facilities	N/A
Airports ¹	N/A	Pipelines	N/A
Cemeteries	1	Railroads	N/A
Hospitals	N/A	Trails	N/A
Schools	N/A	Managed Lands	N/A

¹In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

Explanation:

Cemeteries: One (1) Cemetery is located within the 0.5-mile search radius. Pierson Cemetery (SHAARD ID # CR-84-92) is located 0.44 mile southwest of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	3
Canal Structures – Historic	N/A	Lakes	N/A
NPS NRI Listed	N/A	Floodplain - DFIRM	N/A
NWI-Lines	2	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	4	Sinkhole Areas	N/A
Rivers and Streams	4	Sinking-Stream Basins	N/A

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:

NWI-Lines: Two (2) NWI-Line segments are located within the 0.5-mile search radius. One NWI-Line segment is located within the project area. A Waters of the US Report is recommended based on the mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Rivers and Streams: Four (4) rivers and streams segments are located within the 0.5-mile search radius. One (1) segment is located within the project area. A Waters of the US Report is recommended based on the mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.