

Appendix C

Early Coordination

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October 4, 2017

GAI Project No. D170118.06

SAMPLE EARLY COORDINATION LETTER

**Early Coordination
Designation No. 1600486
SR 11 over South Fork Buck Creek
Bridge Replacement Project
Harrison County, Indiana**

Dear Interested Agency:

The Indiana Department of Transportation (INDOT) is proposing to replace the structure carrying State Road (SR) 11 over South Fork Buck Creek (Bridge No. 011-31-06120), located in Harrison County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located at the SR 11 Bridge over South Fork Buck Creek, approximately 0.51 mile south of SR 211, specifically located in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map. The existing structure is a 24 ft. single-span bridge constructed in 1966. SR 11 is functionally classified as a major collector, consisting of two 10 ft. travel lanes with 1-2 ft. shoulders at the project location. Apparent existing right-of-way extends approximately 30 ft. on either side of the centerline (60 ft. total). The proposed project involves replacing and widening the bridge superstructure to accommodate a deck with two 12 ft. travel lanes and 8 ft. shoulders and replacing components of the substructure. The project will also include new approaches and updating the bridge railing and guardrail. Scour protecting is likely to be required at the abutments.

A Red Flag Investigation is currently being performed to determine items of concern within the project area. Land use in the vicinity is primarily rural residential and agricultural fields. A Wetland Delineation/Determination and Waters of the United States investigation will be conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains Piedmont Region* (Version 2.0, USACE, 2010) and coordinated with the INDOT Ecology & Permits Office. The Range-Wide Programmatic Informal Consultation process is anticipated for this project to evaluate potential impacts to the Indiana Bat and the Northern Long-Eared Bat, which will involve coordination with the USFWS for review.

As the Section 106 process advances, the project area will be surveyed by individuals satisfying the *Secretary of the Interior Professional Qualification Standards* to determine an area of potential effect (APE), make recommendations on eligibility determinations and assess effects on potential historic resources. Additionally, the project area will be subjected to an archaeological reconnaissance by a qualified archaeologist. Coordination with the State Historic Preservation Officer (SHPO) and the identified consulting parties will be ongoing for the duration of the Section 106 process.

Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency or organization feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable extension may be granted upon request.

Project location maps and photo documentation are attached. If you have any questions regarding this matter, please contact me at p.killian@gaiconsultants.com or (317) 436-4844.

Sincerely,

GAI Consultants, Inc.



Paul Killian
Project Environmental Specialist

Enc.: Project Location Maps, Photo Documentation

SR 11 over South Fork Buck Creek
Bridge Replacement Project
Des. No. 1600486

Agencies Receiving Early Coordination Packet:

Distributed on October 4, 2017

Mr. Scott Pruitt, Field Supervisor
U.S. Fish and Wildlife Service
Northern Indiana Suboffice
P.O. Box 2616
Chesterton, IN 46304
Attn: Ms. Elizabeth McCloskey
Elizabeth_McCloskey@fws.gov

Mr. Rick Neilson, State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278
Rick.neilson@in.usda.gov

Ms. Nancy Hasenmueller, Section Head
Indiana Geological Survey, Environmental Geology
611 North Walnut Grove
Bloomington, IN 47405
IGServir@indiana.edu

Mr. Adam French, Development Specialist
IN Dept. of Transportation, Aviation Division
100 North Senate Avenue, Rm N955, IGCN
Indianapolis, IN 46204
afrench2@indot.in.gov

Regional Environmental Coordinator
National Park Service, Midwest Regional Office
601 Riverfront Drive
Omaha, NE 68102

Mr. Antonio Johnson
Planning & Environmental Specialist
Federal Highway Administration, Indiana Division
Federal Office Building, Room 254
575 North Pennsylvania Street,
Indianapolis, IN 46204
Antonio.Johnson@dot.gov

Ms. Christie Stanifer, Environmental Coordinator
IN Dept. of Natural Resources
Division of Water, Fish & Wildlife Unit
402 West Washington Street, Rm W273, IGCS
Indianapolis, IN 46204
environmentalreview@dnr.in.gov

Field Environmental Officer
U.S. Dept. of Housing & Urban Development
Chicago Regional Office, Metcalf Fed. Bldg.
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604

Mr. Rickie Clark, Public Involvement Manager
IN Dept. of Transportation
Office of Public Involvement
100 N. Senate Ave., Room N642
Indianapolis, IN 46204
rclark@indot.in.gov

Mr. Doug Shelton, Chief, Environmental Resources
Department of the Army, Corps of Engineers
Louisville District
P.O. Box 59
Louisville, KY 40201
Attn: CEMP-P-E

Mr. Thomas Easterly, Commissioner
IN Dept. of Environmental Management
Office of Planning and Assessment
(Website Submittal)

Wellhead Proximity Determinator
(Website Investigation)

Mr. Travis Mankin, Project Manager
IN Dept. of Transportation, Seymour District
185 Agrico Lane
Seymour, IN 47274
tmankin@indot.in.gov

Mr. David Dye, Environmental Scoping Manager
IN Dept. of Transportation, Seymour District
185 Agrico Lane
Seymour, IN 47274
ddye@indot.in.gov

Mr. Kevin Russel, Highway Director
Harrison County Highway Department
1359 Old HWY 135 SW
Corydon, IN 47112
k.russel@harrisoncounty.in.gov

Mr. Harold Klintiver, Harrison County Surveyor
245 Atwood Street NE, Suite #219
Corydon, IN 47112
countysurveyor@harrisoncounty.in.gov



August 25, 2017
Project D170118.06

SAMPLE NOTICE OF SURVEY LETTER

**Des No. 1600486, Bridge #6120 SR 11 @ S. Fork Buck Creek,
Bridge Improvements, Harrison County, Indiana
Location Address: North Highway 11 Southeast, Elizabeth, Indiana 47117**

Notice of Entry for Survey Beginning August 29, 2017

Dear Owner or Current Occupant:

Our information indicates that you own or occupy property at North Highway 11 Southeast, Elizabeth, Indiana 47117 located near the above proposed transportation project. As representatives of the Indiana Department of Transportation (INDOT), GAI Consultants, Inc. or other consultants will be conducting field and environmental surveys in the future. It may be necessary for them to enter onto your property to complete this work. This is permitted under Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please provide us the name of the new owner or occupant and their contact information so that we can contact them about the survey.

Please read the attached notice to inform you of what the "Notice of Entry for Survey or Investigation" means. The field survey(s) may include but is/are not limited to topographic survey including the mapping of locations of features such as trees, buildings, fences and drives, and obtaining ground elevations and geotechnical investigation. The environmental survey(s) may include but is/are not limited to archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), identification and mapping of wetlands and waterways, taking photographs of the area (which may include infrastructure, roads, residential properties, and commercial properties), a historical review of the properties within the vicinity of the proposed project area, evaluation of land use for completion of environmental documentation and various other environmental studies. The information we obtain from such surveys and studies is necessary for the proper planning and design of this project.

It is our sincere desire to cause you as little inconvenience as possible during these surveys. If any problems do occur, please contact Mark Young at m.young@gaiconsultants.com or (317) 436-4821. However, please keep in mind that ***no specific information regarding this project is available at this time.*** Thank you in advance for your cooperation.

Sincerely,

GAI Consultants, Inc.

Mark D. Young, PE
Project Manager

MDY/kam

Enc.: Indiana Department of Transportation Notice of Entry for Survey or Investigation

Indiana Department of Transportation Notice of Entry for Survey or Investigation

If you have received a “Notice of Entry for Survey or Investigation” from INDOT or an INDOT representative, you may be wondering what it means. In the early stages of a project’s development, INDOT must collect as much information as possible to ensure that sound decisions are made in designing the proposed project. Before entering onto private property to collect that data, INDOT is required to notify landowners that personnel will be in the area and may need to enter onto their property. Indiana Code, Title 8, Article 23, Chapter 7, Section 26 deals with the department’s authority to enter onto any property within Indiana.

Receipt of a Notice of Entry for Survey or Investigation does not necessarily mean that INDOT will be buying property from you. It doesn’t even necessarily mean that the project will involve your property at all. Since the Notice of Entry for Survey or Investigation is sent out in the very early stages and since we want to collect data within AND surrounding the project’s limits more landowners are contacted than will actually fall within the eventual project limits. It may also be that your property falls within the project limit, but we will not need to purchase property from you to make improvements to the roadway. Another thing to keep in mind is that when you receive a Notice of Entry for Survey or Investigation, very few specifics have been worked out and actual construction of the project may be several years in the future.

Before INDOT begins a project that requires them to purchase property from landowners, they must first offer the opportunity for a public hearing. If you were on the list of people who received a Notice of Entry for Survey or Investigation, you should also receive a notice informing you of your opportunity to request a public hearing. These notices will also be published in your local newspaper so interested individuals who are not adjacent to the project will also have the opportunity to request a public hearing. If a public hearing is to be held, INDOT will publicize the date, location, and time. INDOT will present detailed project information at the public hearing, comments will be taken from the public in spoken and written form, and question and answer sessions will be offered. Based on the feedback INDOT receives from the public, a project can be modified and improved to better serve the public.

So, if you received a “Notice of Entry for Survey or Investigation”, remember:

1. You do not need to take any action at this time. It is merely letting you know that people in orange/lime vests are going to be in your neighborhood.
2. The project is still in its very early planning stages.
3. You will be notified of your opportunity to comment on the project at a later date.



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 North Senate Avenue - Indianapolis, IN 46204
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

Indiana Department of Transportation
Travis Mankin
185 Agrico Lane
Seymour, IN 47274
Date

GAI Consultants, Inc.
Paul Killian
6420 Castleway West Drive
Indianapolis, IN 46250

Dear Grant Administrator or Other Finance Approval Authority:

RE: The Indiana Department of Transportation (INDOT) is proposing to replace the structure carrying State Road (SR) 11 over South Fork Buck Creek (Bridge No. 011-31-06120, Des 1600486), located in Harrison County, Indiana. This project is located at the SR 11 Bridge over South Fork Buck Creek, approximately 0.51 mile south of SR 211, specifically located in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map. The existing structure is a 24 ft. single-span bridge constructed in 1966. SR 11 is functionally classified as a major collector, consisting of two 10 ft. travel lanes with 1-2 ft. shoulders at the project location. Apparent existing right-of-way extends approximately 30 ft. on either side of the centerline (60 ft. total). The proposed project involves replacing and widening the bridge superstructure to accommodate a deck with two 12 ft. travel lanes and 8 ft. shoulders and replacing components of the substructure. The project will also include new approaches and updating the bridge railing and guardrail. Scour protecting is likely to be required at the abutments.

The Indiana Department of Environmental Management (IDEM) is aware that many local government or not-for-profit entities are seeking grant monies, a bond issuance, or another public funding mechanism to cover some portion of the cost of a public works, infrastructure, or community development project. IDEM also is aware that in order to be eligible for such funding assistance, applicants are required to first evaluate the potential impacts that their particular project may have on the environment. In order to assist applicants seeking such financial assistance and to ensure that such projects do not have an adverse impact on the environment, IDEM has prepared the following list of environmental issues that each applicant must consider in order to minimize environmental impacts in compliance with all relevant state laws.

IDEM recommends that each applicant consider the following issues when moving forward with their project. IDEM also requests that, in addition to submitting the information requested above, each applicant also sign the attached certification, attesting to the fact that they have read the letter in its entirety, agree to abide by the recommendations of the letter, and to apply for any permits required from IDEM for the completion of their project.

IDEM recommends that any person(s) intending to complete a public works, infrastructure, or community development project using any public funding consider each of the following applicable recommendations and requirements:

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality. To learn more about the water quality certification program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other body of water is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana. A state isolated wetland permit from IDEM's Office of Water Quality is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the Office of Water Quality at 317-233-8488.

4. If your project will impact more than 0.5 acres of wetland, stream relocation, or other large-scale alterations to bodies of water such as the creation of a dam or a water diversion, you should seek additional input from the Office of Water Quality, Wetlands staff at 317-233-8488.
5. Work within the one-hundred year floodway of a given body of water is regulated by the Department of Natural Resources, Division of Water. Contact this agency at 317-232-4160 for further information.
6. The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.
7. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
 - <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq>) (<http://www.in.gov/idem/4917.htm#constreq>), and as described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF] (<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html> (<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm> (<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

8. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317-232-4080) for additional project input.
9. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
10. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
11. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

The above-noted project (see page 1) should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed under specific conditions (<http://www.in.gov/idem/4148.htm> (<http://www.in.gov/idem/4148.htm>)). You also can seek an open burning variance from IDEM.

IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on-site. You must register with IDEM if more than 2,000 pounds is to be composted; contact 317-232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) on-site, although burying large quantities of such material can lead to subsidence problems.

2. Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

If construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for three to five years, precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for three to five years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at 317-233-7272.

3. The U.S. EPA and the U.S. Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. For a county-by-county map of predicted radon levels in Indiana , visit <http://www.in.gov/idem/4267.htm> (<http://www.in.gov/idem/4267.htm>).

The U.S. EPA further recommends that all homes and apartments (within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L or higher, then U.S. EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L or higher, then U.S. EPA recommends the installation of radon-reduction measures. For a list of qualified radon testers and radon mitigation (or reduction) specialists, visit http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf (http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf). Also, it is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure, visit <http://www.in.gov/isdh/regsvcs/radhealth/radon.htm> (<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html> (<http://www.epa.gov/radon/index.html>).

4. With respect to asbestos removal, all facilities slated for renovation or demolition (except residential buildings that have four (4) or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

In all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at www.in.gov/icpr/webfile/formsdiv/44593.pdf.

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. Billings will occur on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: <http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

5. With respect to lead-based paint removal, IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978, or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal, visit <http://www.in.gov/idem/permits/guide/waste/leadabatement.html> (<http://www.in.gov/idem/permits/guide/waste/leadabatement.html>).
6. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months of April through October. See 326 IAC 8-5-2, Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>) (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>).
7. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (www.ai.org/legislative/iac/t03260/a00020.pdf) (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
8. For more information on air permits, visit <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or oamprod@idem.in.gov.

LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If Polychlorinated Biphenyls (PCBs) are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes. (Asbestos removal is addressed above, under Air Quality.)
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317-308-3039 (<http://www.in.gov/idem/4999.htm>) (<http://www.in.gov/idem/4999.htm>).

FINAL REMARKS

Should the applicant need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that they notify all adjoining property owners and/or occupants within ten days of your submittal of each permit application. Applicants seeking multiple permits, may still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Please note that this letter does not constitute a permit, license, endorsement, or any other form of approval on the part of either the Indiana Department of Environmental Management or any other Indiana state agency.

Should you have any questions relating to the content or recommendations of this letter, or if you have additional questions about whether a more complete environmental review of your project should be conducted, please feel free to contact Steve Howell at (317) 232-8587, snhowell@idem.in.gov.

Signature(s) of the Applicant

I acknowledge that I am seeking grant monies, a bond issuance, or other public funding mechanism to cover some portion of the cost of the public works, infrastructure, or community development project as described herein, which I am working (possibly with others) to complete.

Project Description

The Indiana Department of Transportation (INDOT) is proposing to replace the structure carrying State Road (SR) 11 over South Fork Buck Creek (Bridge No. 011-31-06120, Des 1600486), located in Harrison County, Indiana. This project is located at the SR 11 Bridge over South Fork Buck Creek, approximately 0.51 mile south of SR 211, specifically located in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map. The existing structure is a 24 ft. single-span bridge constructed in 1966. SR 11 is functionally classified as a major collector, consisting of two 10 ft. travel lanes with 1-2 ft. shoulders at the project location. Apparent existing right-of-way extends approximately 30 ft. on either side of the centerline (60 ft. total). The proposed project involves replacing and widening the bridge superstructure to accommodate a deck with two 12 ft. travel lanes and 8 ft. shoulders and replacing components of the substructure. The project will also include new approaches and updating the bridge railing and guardrail. Scour protecting is likely to be required at the abutments.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environmental Management that appears directly above. In addition, I understand that in order to complete the project in which I am interested, with a minimum impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Dated Signature of the Public Owner *Travis Mankin* 6/18/18
Contact/Responsible Elected Official

Dated Signature of the Project *Paul Killian* 6/18/18
Planner/Consultant Contact Person
Travis Mankin
Paul Killian

Indiana Department of Environmental Management



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

October 22, 2019

66-33
GAI Consultants
Attention: Harlan Ford
201 North Illinois Street, Suite 1700
Indianapolis, Indiana 46204

Dear Harlan Ford,

RE: Wellhead Protection Area
Proximity Determination
Des No 1600486
Bridge Replacement project (Bridge
No. 011-31-06120) located on
SR-11 over South Fork Buck Creek,
approximately 0.51 mile south of
SR 211
Elizabeth, Harrison County, Indiana

Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases we use a 3,000 foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at <http://www.in.gov/idem/cleanwater/2456.htm> and scroll to the bottom of the page.

Note: the Drinking Water Branch has a self service feature which allows one to determine wellhead proximity without submitting the application form. Use the following instructions:

1. Go to <http://idemmaps.idem.in.gov/whpa2/>
2. Use the search tool located in the upper left hand corner of the application to zoom to your site of interest by way of city, county, or address; or use the mouse to click on the site of interest displayed on the map.
3. Once the site of interest has been located and selected, use the print tool to create a .pdf of a wellhead protection area proximity determination response.

In the future please consider using this self service feature if it suits your needs.

If you have any additional questions please feel free to contact me at the address above or at (317) 233-9158 and aturnbow@idem.in.gov.

Sincerely,

Alisha Turnbow,
Environmental Manager
Ground Water Section
Drinking Water Branch
Office of Water Quality



Please Reduce, Reuse, Recycle



Organization and Project Information

Project ID:
Des. ID: 1600486
Project Title: SR 11 over South Fork Buck Creek
Name of Organization: GAI Consultants, Inc.
Requested by: Paul Killian

Environmental Assessment Report

1. Geological Hazards:

- 1% Annual Chance Flood Hazard

2. Mineral Resources:

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

3. Active or abandoned mineral resources extraction sites:

- None documented in the area

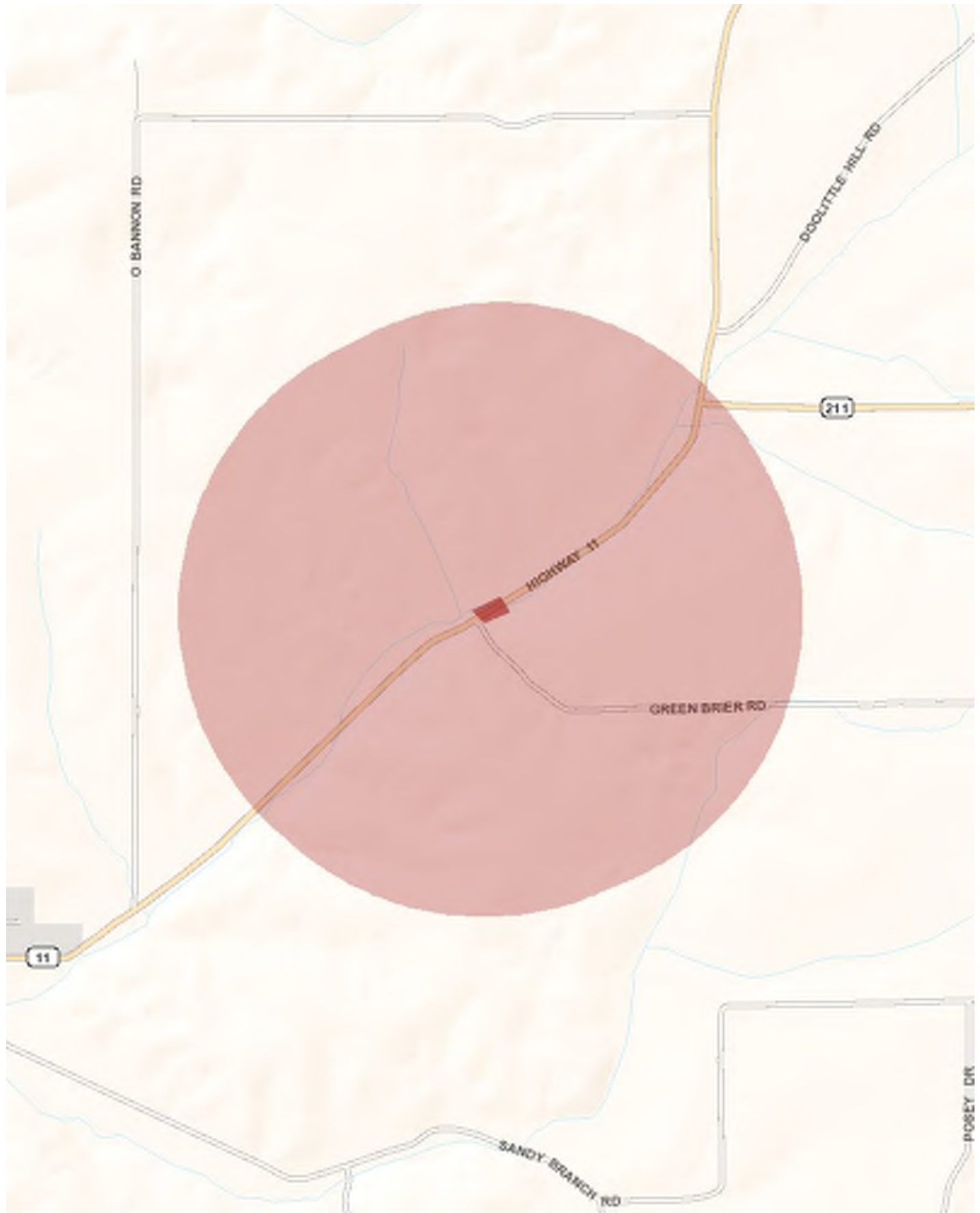
*All map layers from Indiana Map (maps.indiana.edu)

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: 611 N. Walnut Grove Avenue, Bloomington, IN 47405-2208
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: October 06, 2017



Metadata:

- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

October 4, 2017

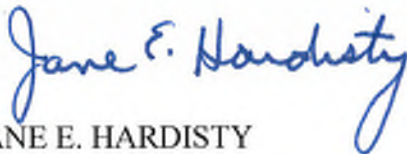
Paul Killian
Project Environmental Specialist
GAI Consultants
6420 Castleway West Drive
Indianapolis, Indiana 46250

Dear Mr. Killian:

The proposed project to replace structure in Harrison County, Indiana, (Des No. 1600486) as referred in your letter received on October 4, 2017, will not cause a conversion of prime farmland.

If you need additional information, please contact Rick Neilson at 317-295-5875.

Sincerely,



JANE E. HARDISTY
State Conservationist

Enclosure





INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N955
Indianapolis, Indiana 46204

PHONE: (317) 232-1477
FAX: (317) 232-1499

Eric Holcomb, Governor
Joe McGuinness, Commissioner

October 6, 2017

Mr. Paul Killian, Project Environmental Specialist
GAI Consultants
6420 Castleway West Drive
Indianapolis, IN 46250

Subject: Early Coordination Review (Des. No. 1600486)

Dear Mr. Killian,

In response to your request on October 4, 2017 for early coordination review of a project to replace the structure carrying SR 11 over South Fork Buck Creek (Bridge No. 011-31-06120), located in Harrison County, Indiana; the Indiana Department of Transportation, Office of Aviation has reviewed the information and provides the following:

Are there any existing or proposed public-use airports within 5 nautical miles of the project limits (IC 8-21-10-6)?

The nearest public-use airports is located beyond 5 nautical miles of the project site.

Will an Indiana Tall Structure permit (IC 8-21-10-3-a) and/or Noise Sensitive (IC 8-21-10-3-b) permit be required?

Based upon the provided information, an Indiana Tall Structure permit would not be required unless the project involves the construction of a temporary (e.g., crane) or permanent structure that exceeds a height of 200 feet above ground level.

For any questions related to Indiana Tall Structure and/or Noise Sensitive permitting, please contact James Kinder at (317) 232-1485 or jkinder2@indot.in.gov.

Sincerely,

A handwritten signature in blue ink that reads "Adam French".

Adam French, MPA
Chief Airport Inspector, Office of Aviation
Indiana Department of Transportation

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

DNR #: ER-20117

Request Received: October 4, 2017

Requestor: GAI Consultants Inc
Paul Killian
6420 Castleway West Drive
Indianapolis, IN 46250-1914

Project: SR 11 bridge replacements over South Fork Buck Creek:
1) Des #1600485 (#011-31-06119), about 0.85 mile south of SR 211
2) Des #1600486 (#011-31-06120), about 0.51 mile south of SR 211

County/Site info: Harrison

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: This proposal will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the bridge exemption criteria.

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 & 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:

1) Scour Protection:

Minimize the use of riprap and use alternative erosion protection materials whenever possible. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must 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.

Where hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats or other similar smooth-surfaced materials as these materials will not impair wildlife movement.

Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Also, the following is a USDA/NRCS document that outlines many different bioengineering and other bank stabilization techniques: <http://directives.sc.gov.usda.gov/17553.wba>.

Attachments: A - Bridge Exemption Criteria

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

2) 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 Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees). Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

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.

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

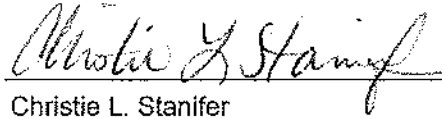
1. Revegetate all bare and disturbed areas in the floodway with a mixture of native grasses, sedges, wildflowers as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants (e.g. crown-vetch).
2. Minimize and contain within the project limits inchannel disturbance 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 (greater than 3 inches dbh, 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. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
9. Post "Do Not Mow or Spray" signs along the right-of-way.
10. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
11. Seed and protect all disturbed slopes that are 3:1 or steeper with heavy duty biodegradable erosion control blankets (follow manufacturer's recommendations for selection and installation; seed and apply mulch on all other disturbed areas).

THIS IS NOT A PERMIT

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

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



Date: November 3, 2017

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Attachments: A - Bridge Exemption Criteria

The Flood Control Act (IC 14-28-1) contains a provision (Section 22), which exempts certain bridge projects from its permitting requirement. Specifically, the Act states:

A permit is not required for "a construction or reconstruction project on a state or county highway bridge in a rural area that crosses a stream having an upstream drainage area of not more than fifty (50) square miles..."

Therefore, in order for a bridge project to be exempt, it must:

- be a state or county highway department project;
- be a bridge;
- be located in a rural area; and
- cross a stream having an upstream drainage area of less than 50 square miles.

The initial criterion is very specific - the structure must be a state or county highway department project.

The second requirement mandates that the project be a bridge (for this provision, the Department of Natural Resources considers a culvert to be a bridge). Projects such as bank protection, spoil disposal, borrow pits, etc. are not automatically exempt. Anyone proposing to undertake a non-bridge related activity should consult with the Division of Water's Technical Services Section staff at 317-232-4160 (or toll free at 1-877-928-3755) regarding the applicability of the exemption prior to initiating work.

The third criterion states that the project must be located in a rural area. The phrase "rural area" is defined as an area:

- where the lowest floor elevation, including a basement, of any residential, commercial, or industrial building impacted by the project is at least 2 feet above the 100 year flood elevation with the project in place;
- located outside the corporate boundaries of a consolidated or an incorporated city or town; and
- located outside of the territorial authority for comprehensive planning (generally, a 2 mile planning buffer around a city or town).

The final criterion limits the exemption to a project crossing a stream having an upstream drainage area of less than 50 square miles. The drainage area includes all land area contributing to runoff above the project site and is determined from the United States Geological Survey 7½ minute series quadrangle maps. The Department of Natural Resources will determine the drainage area upon written request.

This exemption has been grossly misunderstood and liberally applied in the past. As a result, the Department of Natural Resources is taking a firm stance on future violations. If challenged, it will be the responsibility of the person claiming the exemption to prove to the Department that all 4 criteria have been satisfied. Failure to do so will result in the Department initiating litigation with the potential for the imposition of fines in amounts up to \$10,000 per day.

Note: This exemption only applies to the Flood Control Act. If a bridge is to be constructed over a navigable waterway, or over or near a public freshwater lake, a permit will be required.

Paul Killian

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Wednesday, October 04, 2017 2:48 PM
To: Paul Killian
Subject: Re: SR 11 over SF Buck Creek (Des 1600485) Early Coordination

Dear Mr. Killian,

This responds to your recent letter, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process. We will review that information once it is received.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please recoordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 334-4261.

Sincerely,

Robin Munson

Robin McWilliams Munson

U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 46403
812-334-4261 x. 207 Fax: 812-334-4273

Monday, Tuesday - 7:30a-3:00p

Wednesday, Thursday - telework 8:30a-3:00p

On Wed, Oct 4, 2017 at 11:20 AM, Paul Killian <P.Killian@gaiconsultants.com> wrote:

Hi Robin,

The Indiana Department of Transportation (INDOT) is proposing to replace the structure carrying SR 11 over South Fork Buck Creek (Des 1600485) in Harrison County, Indiana. We are seeking comments for resources under your jurisdiction that may be impacted by the proposed project. Please see the attached letter for project details. We will be accepting comments for 30 days from this email, unless a request for an accommodation is made. Please let me know if you have any questions.

Thank you,

Paul D. Killian

Project Environmental Specialist

6420 Castleway West Drive, Indianapolis, IN 46250

T 317.570.6800 **D** 317.436.4844 **M** 317.402.9904

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Paul Killian

From: Kevin Russel <K.Russel@harrisoncounty.in.gov>
Sent: Thursday, October 05, 2017 8:50 AM
To: Paul Killian
Subject: RE: SR 11 over SF Buck Creek (Des 1600486) Early Coordination

Paul,

Thank you for the opportunity to comment. This structure is located very near the intersection of SR 11 and Greenbrier Rd. Our only concern would be that you provide us opportunity through the design process to comment on any potential effects on our county road.

Thanks,
Kevin Russel, PE
Director / Engineer
Harrison County Highway Department

Harrison County Highway Department
1359 Old Highway 135 SW
Corydon, Indiana 47112

812-738-2920 – phone

812-738-2929 – fax

www.HarrisonCounty.In.gov



Follow us on Facebook

From: Paul Killian [mailto:P.Killian@gaiconsultants.com]
Sent: Wednesday, October 04, 2017 1:58 PM
To: Kevin Russel <K.Russel@harrisoncounty.in.gov>
Subject: SR 11 over SF Buck Creek (Des 1600486) Early Coordination

Mr. Russel,

The Indiana Department of Transportation (INDOT) is proposing to replace the structure carrying SR 11 over South Fork Buck Creek (Des 1600486) in Harrison County, Indiana. We are seeking comments for resources under your jurisdiction that may be impacted by the proposed project. Please see the attached letter for project details. We will be accepting comments for 30 days from this email, unless a request for an accommodation is made. Please let me know if you have any questions.

Thank you,

Paul D. Killian
Project Environmental Specialist

6420 Castleway West Drive, Indianapolis, IN 46250

T 317.570.6800 **D** 317.436.4844 **M** 317.402.9904

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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

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

January 31, 2020

Consultation Code: 03E12000-2018-SLI-0436

Event Code: 03E12000-2020-E-03127

Project Name: SR 11 over South Fork Buck Creek (DES 1600486) - Bridge Replacement

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

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.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number 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

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

Consultation Code: 03E12000-2018-SLI-0436

Event Code: 03E12000-2020-E-03127

Project Name: SR 11 over South Fork Buck Creek (DES 1600486) - Bridge Replacement

Project Type: TRANSPORTATION

Project Description: The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), is proposing to replace the structure carrying State Road (SR) 11 over South Fork Buck Creek (Bridge No. 011-31-06120), located in Harrison County, Indiana. This project is located approximately 0.51 mile south of SR 211, specifically located in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map. The existing structure is a 24 ft. single-span bridge constructed in 1966. SR 11 is functionally classified as a major collector, consisting of two 10 ft. travel lanes with 1-2 ft. shoulders at the project location. The proposed project involves replacing and widening the structure to accommodate 11ft. travel lanes and 4ft. shoulders with a 38ft.- 9 in. span reinforced concrete slab structure, approximately 40 ft. in length. In addition, the vertical alignment of the roadway will be raised in order to achieve hydraulic adequacy and riprap will be placed along the channel banks and footers for scour protection. This project will require some tree trimming and clearing to allow access, install riprap turnouts and regrade the stream channel in the south quadrants of the project area. Suitable summer habitat is located within the project area; however, tree trimming/clearing will be kept to the bare minimum. Approximately 0.10 acre of trees/shrubs will need to be removed, with the dominant species being American sycamore (*Platanus occidentalis*) and hackberry (*Celtis occidentalis*). Tree trimming and clearing will take place during the inactive season. A review of the USFWS database for bat hibernacula within 0.5 miles of the project area was completed by INDOT, Seymour District on March 2, 2018. Their review did not indicate the presence of endangered bat species in or within the 0.5 miles search radius of the project area. No permanent lighting will be installed or replaced as part of this project; however, the use of temporary lighting may be needed. Existing right-of-way (ROW) extends approximately 30 ft. on either side of the centerline (60 ft. total). Approximately 0.91 acre of permanent ROW will be required for this project. Construction for this project is expected to begin in Spring of 2021.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.12991476782731N85.95623629721581W>



Counties: Harrison, IN

Endangered Species Act Species

There is a total of 3 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. Note that 1 of these species should be considered only under certain conditions.

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
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> https://ecos.fws.gov/ecp/species/5949#crithab	Final

Paul Killian

From: Williamson, Brad <BWILLIAMSON@indot.IN.gov>
Sent: Friday, March 02, 2018 10:35 AM
To: Paul Killian
Subject: RE: USFWS Prog Cons 0.5 mile search for Seymour On-Call

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project areas. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects" dated October 25, 2017.

If no useful information is available in BIAS to confirm there is no evidence of bats at each bridge/small structure then additional investigation to confirm the presence or absence of bats will be necessary.

Let me know if you need anything more.

Brad Williamson

Environmental Manager 2

Capitol Program Management
Indiana Department of Transportation
185 Agrico Lane
Seymour, IN 47274
Office: (812)524-3971
Email: bwilliamson@indot.in.gov

From: Paul Killian [mailto:P.Killian@gaiconsultants.com]
Sent: Monday, February 26, 2018 12:06 PM
To: Williamson, Brad <BWILLIAMSON@indot.IN.gov>
Subject: USFWS Prog Cons 0.5 mile search for Seymour On-Call

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

Hi Brad,

I am in the process of finishing up our Seymour On-Call RFIs and need to address the section on ETR species. I have attached location maps and a KMZ file containing the project locations to facilitate the USFWS database search for bats and the rusty-patched bumblebee within 0.5 miles of the project area. I will be completing the IPaC process shortly and will add you to each of the projects as I go.

The Seymour On-Call includes:

- 1.) SR 11 over South Fork Buck Creek (Des 1600485)
- 2.) SR 11 over South Fork Buck Creek (Des 1600486)
- 3.) SR 11 over UNT to Union Creek (Des 1600665)
- 4.) SR 46 over North Fork Salt Creek (Des 1701170)
- 5.) SR 67 over East Fork White Lick Creek (Des 1383728 & 1383734)
- 6.) SR 67 Resurface (Des 1700137)
- 7.) SR 156 over Goose Creek (Des 1593206)

- 8.) SR 156 over Wade Creek (Des 1400024)
- 9.) SR 256 over Little Creek (Des 1600495)

Please let me know if you have any questions.

Thanks,

Paul D. Killian

Project Environmental Specialist

6420 Castleway West Drive, Indianapolis, IN 46250

T 317.570.6800 **D** 317.436.4844 **M** 317.402.9904

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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

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

March 04, 2020

Consultation Code: 03E12000-2018-I-0436

Event Code: 03E12000-2020-E-04428

Project Name: SR 11 over South Fork Buck Creek (DES 1600486) - Bridge Replacement

Subject: Concurrence verification letter for the 'SR 11 over South Fork Buck Creek (DES 1600486) - Bridge Replacement' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **SR 11 over South Fork Buck Creek (DES 1600486) - Bridge Replacement** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion 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 threatened Northern long-eared bat (*Myotis septentrionalis*).

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/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted 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. 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:

- Gray Bat, *Myotis grisescens* (Endangered)

Project Description

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

Name

SR 11 over South Fork Buck Creek (DES 1600486) - Bridge Replacement

Description

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), is proposing to replace the structure carrying State Road (SR) 11 over South Fork Buck Creek (Bridge No. 011-31-06120), located in Harrison County, Indiana. This project is located approximately 0.51 mile south of SR 211, specifically located in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map. The existing structure is a 24 ft. single-span bridge constructed in 1966. SR 11 is functionally classified as a major collector, consisting of two 10 ft. travel lanes with 1-2 ft. shoulders at the project location. The proposed project involves replacing and widening the structure to accommodate 11ft. travel lanes and 4ft. shoulders with a 38ft.-9 in. span reinforced concrete slab structure, approximately 40 ft. in length. In addition, the vertical alignment of the roadway will be raised in order achieve hydraulic adequacy and riprap will be placed along the channel banks and footers for scour protection. This project will require some tree trimming and clearing to allow access, install riprap turnouts and regrade the stream channel in the south quadrants of the project area. Suitable summer habitat is located within the project area; however, tree trimming/clearing will be kept to the bare minimum. Approximately 0.10 acre of trees/shrubs will need to be removed, with the dominant species being American sycamore (*Platanus occidentalis*) and hackberry (*Celtis occidentalis*). Tree trimming and clearing will take place during the inactive season. A review of the USFWS database for bat hibernacula within 0.5 miles of the project area was completed by INDOT, Seymour District on March 2, 2018. Their review did not indicate the presence of endangered bat species in or within the 0.5 miles search radius of the project area. No permanent lighting will be installed or replaced as part of this project; however, the use of temporary lighting may be needed. Existing right-of-way (ROW) extends approximately 30 ft. on either side of the centerline (60 ft. total). Approximately 0.91 acre of permanent ROW will be required for this project. Construction for this project is expected to begin in Spring of 2021.

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 threatened 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 revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion 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?

Yes

8. Will the project include *any* type of activity that could impact a **known** hibernaculum^[1], or impact a karst feature (e.g., sinkhole, losing stream, or spring) that could result in effects to a **known** hibernaculum?

[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

9. 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 [national consultation FAQs](#).

Yes

10. 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

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

No

12. 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

13. 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

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

Yes

15. 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

16. 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 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.)

[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

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

Yes

18. 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

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

Yes

20. Will the tree removal alter *any* **documented** Indiana bat or NLEB roosts and/or alter any surrounding summer habitat **within** 0.25 mile of a documented roost?

No

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

No

22. Are *all* trees that are being removed clearly demarcated?

Yes

23. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

No

24. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

25. Does the project include slash pile burning?

No

26. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

Yes

27. 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

28. 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

- [USFWS_BridgeStructureAssessmentForm_1600486.pdf](#) <https://ecos.fws.gov/ipac/project/KBEREJNH2NE6DI4XSZKGNQZWI/projectDocuments/20334829>

29. 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

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

No

31. 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

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

Yes

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

Yes

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

No

35. 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

36. 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

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

No

38. 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

39. 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.

40. 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.

41. 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

42. 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

43. Hibernacula AMM 1

Will the project ensure that on-site personnel will use best management practices^[1], secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula?

[1] Coordinate with the appropriate Service Field Office on recommended best management practices for karst in your state.

Yes

44. Hibernacula AMM 1

Will the project ensure that, where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography?

Yes

45. 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

46. 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

47. 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

48. 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?

No

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

Yes

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.

0.1

4. Please describe the proposed bridge work:

The proposed project involves replacing and widening the structure to accommodate 11ft. travel lanes and 4ft. shoulders with a 38ft.- 9 in. span reinforced concrete slab structure, approximately 40 ft. in length.

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

Spring of 2021

6. Please enter the date of the bridge assessment:

February 14, 2020

Avoidance And Minimization Measures (AMMs)

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

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.

HIBERNACULA AMM 1

For projects located within karst areas, on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography.

LIGHTING AMM 1

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

TREE REMOVAL AMM 1

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

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.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on December 02, 2019. 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 threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion 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.

Raquel Walker

From: Dye, David <DDYE@indot.IN.gov>
Sent: Wednesday, March 4, 2020 1:56 PM
To: Harlan Ford
Cc: Raquel Walker; Hinkle, Meghan
Subject: RE: IPaC Review for Des No. 1600486: SR-11 over South Fork Buck Creek (GAI Project No. D170118.06)

EXTERNAL E-MAIL MESSAGE

I have reviewed and submitted this determination to USFWS for their 14-day review period.

Let me know if you have any additional questions.

David Dye

Environmental Section Manager

185 Agrico Lane

Seymour, IN 47274

Office: (812) 524-3723

Email: ddye@indot.in.gov



From: Harlan Ford <H.Ford@gaiconsultants.com>

Sent: Monday, February 17, 2020 12:47 PM

To: Dye, David <DDYE@indot.IN.gov>

Cc: Raquel Walker <R.Walker@gaiconsultants.com>; Hinkle, Meghan <MHinkle@indot.IN.gov>

Subject: FW: IPaC Review for Des No. 1600486: SR-11 over South Fork Buck Creek (GAI Project No. D170118.06)

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Hey David,

I made the same revisions to IPaC on this project as I did for Des No. 1600485. The changes include an updated bridge assessment form and project questionnaire updates for the affect determination made on the Grey Bat. The IPaC Record locator ID is: **783-20070409**. I have also attached the generated consistency letter for your reference as well.

Please let me know if you have any questions or need any additional information.

Thanks for your time,

Harlan M. Ford

D 317.436.9142 **M** 423.458.5979



From: Dye, David <DDYE@indot.IN.gov>
Sent: Thursday, February 13, 2020 2:49 PM
To: Harlan Ford
Cc: Hinkle, Meghan
Subject: FW: DES 1600485 and 1600486 Critical Habitat check

EXTERNAL E-MAIL MESSAGE

Hi Harlan,

Since IPaC showed these projects in a critical habitat, we coordinated with USFWS. Please see the emails below for information and recommendations. Let us know if you have any questions.

David Dye

Environmental Section Manager

185 Agrico Lane
Seymour, IN 47274

Office: (812) 524-3723

Email: ddye@indot.in.gov



From: McWilliams, Robin [mailto:robin_mcwilliams@fws.gov]
Sent: Thursday, February 13, 2020 10:10 AM
To: Hinkle, Meghan <MHinkle@indot.IN.gov>
Subject: Re: DES 1600485 and 1600486 Critical Habitat check

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Yes, sounds good.

Robin

Robin McWilliams Munson
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 46142
812-334-4261

Mon-Tues 8-3:30p

Wed-Thurs 8:30-3p Telework

From: Hinkle, Meghan <MHinkle@indot.IN.gov>
Sent: Thursday, February 13, 2020 8:09 AM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Cc: Dye, David <DDYE@indot.IN.gov>
Subject: [EXTERNAL] RE: DES 1600485 and 1600486 Critical Habitat check

Good Morning Robin,

Based on the RFI check one location has two sink hole locations over 0.4 mile from the project area, and the other location has one sink hole area 0.25 mile from the project area. Based on the RFI check, the 0.5 mile bat check, and your response we will make a NLAA determination for impacts to the grey bat. I will inform the consultant to add in erosion and sediment recommendations from the Interim Policy as firm commitments.

Does this sound appropriate for this project?

Meghan Hinkle
Major Projects / LPA Review Liaison
Environmental Services Division
Indiana Department of Transportation
100 N Senate Ave N642-ES
Indianapolis, IN 46204-2216
317-232-1490
Email: MHinkle@indot.IN.gov



From: McWilliams, Robin [mailto:robin_mcwilliams@fws.gov]
Sent: Wednesday, February 12, 2020 3:31 PM
To: Hinkle, Meghan <MHinkle@indot.IN.gov>
Subject: Re: DES 1600485 and 1600486 Critical Habitat check

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

Hi Meghan,
both of these projects are outside of the buffer for the Critical Habitat; they are also just outside of the 10 mile radius of one of our Priority 2 hibernacula, so seasonal tree clearing will be from Oct. 1 through March 30. You do need to make a determination for the grey bat if it is listed on your T&E list. With seasonal clearing and appropriate measures to avoid and minimize impacts to the stream, such as erosion and sedimentation (which could affect aquatic insects/prey for grey bats), I believe you could reach a NLAA for the grey bat as well. Hope this answers you questions.

Robin

Robin McWilliams Munson
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 46142
812-334-4261

Mon-Tues 8-3:30p
Wed-Thurs 8:30-3p Telework

From: Hinkle, Meghan <MHinkle@indot.IN.gov>
Sent: Monday, February 10, 2020 10:20 AM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Subject: [EXTERNAL] DES 1600485 and 1600486 Critical Habitat check

Good Morning Robin,

Both of these projects are located in a critical habitat and the grey bat is included in the species list. These projects do not qualify for the USFWS Interim Policy. Could you check your records and see if any of the IPaC questions should be answered differently or tree clearing dates should be adjusted? Also is additional coordination needed for impacts to the grey bat? I have added you as a member to both IPaC projects.

DES 1600486 State Road 11 over South Fork Buck Creek: This project is located approximately 0.51 mile south of SR 211. The proposed project involves replacing and widening the structure to accommodate 11ft. travel lanes and 4ft. shoulders with a 38ft.- 9 in. span reinforced concrete slab structure, approximately 40 ft. in length. In addition, the vertical alignment of the roadway will be raised in order to achieve hydraulic adequacy and riprap will be placed along the channel banks and footers for scour protection. Approximately 0.10 acre of trees/shrubs will need to be removed. Tree trimming and clearing will take place during the inactive season. A review of the USFWS database for bat hibernacula within 0.5 miles of the project did not indicate the presence of endangered bat species in or within the 0.5 miles search radius of the project area. No permanent lighting will be installed or replaced as part of this project; however, the use of temporary lighting may be needed. Construction for this project is expected to begin in Spring of 2021.

DES 1600485 State Road 11 over South Fork Buck Creek: This project is located at the SR 11 Bridge over South Fork Buck Creek, approximately 0.85 mile south of SR 211. The proposed project involves replacing and widening the structure to accommodate 11ft. travel lanes and 2-4ft. paved shoulders with a 30 ft. span reinforced concrete slab structure, approximately 32 ft. in length. Approximately 0.05 acre of tree trimming/clearing may be necessary to complete the project; however, tree trimming/clearing will be kept to the bare minimum. Tree trimming and clearing will take place during the inactive season. A review of the USFWS database for bat hibernacula within 0.5 miles of the project area was completed did not indicate the presence of endangered bat species in or within the 0.5 miles search radius of the

project area. No permanent lighting will be installed or replaced as part of this project; however, the use of temporary lighting may be needed. Approximately 0.539 acre of permanent ROW, and 0.012 acre of temporary ROW will be required for this project. Construction for this project is expected to begin in Spring of 2021.

Let me know if you have any questions or comments.

Thanks,

Meghan Hinkle
Major Projects / LPA Review Liaison
Environmental Services Division
Indiana Department of Transportation
100 N Senate Ave N642-ES
Indianapolis, IN 46204-2216
317-232-1490
Email: MHinkle@indot.IN.gov



To ensure that all NEPA documents are submitted appropriately in ERMS to the NEPA Document Review Unit, please be sure to include the following:

- The document type (CE/EA/EIS/PCE for ITS/Noise Analysis/ECF/AI/NTF/Bat Language) within the subject line and the body of the text.
- State in the body of the email who the document is intended for based on the CE Manual
 - PCE and State projects that are a CE-2 or lower to the appropriate district environmental supervisor/team lead
 - LPA and State projects that are a CE-3 and above or EA/EIS to the INDOT ESD Document Team Lead at Central Office.
 - Specify the name and email address of the recipient who should get the final document (e.g. Brandon Miller, NEPA Document Team Lead at Central Office; email: bramiller1@indot.in.gov)

APPENDIX D: Bridge/Structure Assessment Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside; from activities above that bore down to the underside; from activities that could impact expansion joints; from deck removal on bridges; or from structure demolition for bridges/structures within 1000 feet of suitable bat habitat.

DOT Project #	Water Body	Date/Time of Inspection	Within 1,000ft of suitable bat habitat (circle one)
1600486	South Fork Buck Creek	2/14/2020: 10:45am	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Route	County	Federal Structure ID
SR-11	Harrison	011-31-06120 (NBI: 003070)

If the bridge/structure is 1,000 feet or more from suitable bat habitat (e.g., an urban or agricultural area without suitable foraging habitat or corridors linking the bridge to suitable foraging habitat), check box and STOP HERE. No assessment required. Please submit to the U.S. Fish and Wildlife Service.

Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep		Crevices, rough surfaces or imperfections in concrete	X	Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	<input checked="" type="checkbox"/> None
All crevices >12" deep & not sealed		Spaces between walls, ceiling joists	N/A	Possible corridors for netting	<input checked="" type="checkbox"/> None/poor	Marginal	Excellent
All guardrails							
All expansion joints							
Spaces between concrete end walls and the bridge deck							

Last Revised May 31, 2017

Vertical surfaces on concrete Ibeams							
---	--	--	--	--	--	--	--

Evidence of Bats (Circle all that apply) Presence of one or more indicators is sufficient evidence that bats may be using the structure.

None

Visual (e.g. survey, thermal, emergent etc.)

- Live __number seen
- Dead __number seen

Photo documentation Y/N

Audible


Guano

Odor Y/N

Photo documentation Y/N

Staining definitively from bats

Photo documentation Y/N

Assessment Conducted By: <u>Harlan Ford</u>	Signature(s): 
District Environmental Use Only: Date Received by District Environmental Manager: _____	

DOT Bat Assessment Form Instructions

1. Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges, regardless of whether assessments have been conducted in the past.
2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has coordinated with the USFWS. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Any questions should be directed to the District Environmental Manager.

Appendix D

Section 106 Consultation

Item	Appendix Page
MPPA Determination Form	D1 to D4
INDOT CRO Correspondence	D5 to D6
Phase 1a Archaeological Report	D7 to D8

Minor Projects PA Project Assessment Form

Date: 8/27/2018 (updated 2/7/2020)

Project Designation Number: 1600486

Route Number: SR 11

Project Description: SR 11 over South Fork Buck Creek Bridge Project

The proposed project involves replacing and widening the bridge superstructure to accommodate a deck with two 12 ft. travel lanes and 8 ft. shoulders and replacing components of the substructure or replacing the structure with a three-sided or four-sided box structure. Riprap scour protection will be installed at the abutments.

On January 8, 2020, INDOT-CRO received the following updated project information:

The Indiana Department of Transportation (INDOT) is proposing to replace the structure carrying State Road (SR) 11 over South Fork Buck Creek (Bridge No. 011-31-06120), located in Harrison County, Indiana. This project is located at the SR 11 Bridge over South Fork Buck Creek, approximately 0.51 mile south of SR 211, specifically located in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map. The existing structure is a 24 ft. single-span bridge constructed in 1966. SR 11 is functionally classified as a major collector, consisting of two 10 ft. travel lanes with 4 ft. shoulders (1ft. paved) at the project location. Apparent existing Right-of-Way (ROW) extends approximately 30 ft. on either side of the centerline (60 ft. total). Additional ROW will be required, but it is unknown at this time how much. It is anticipated to require approximately 0.30 acre of permanent and 0.10 acre of temporary ROW. The proposed project involves replacing the structure with a 28ft. span by 9 ft. rise flat-top three-sided structure with wing walls, approximately 44 ft. in length that will accommodate 11 ft. travel lanes and 4ft. paved shoulders. In addition, new guardrail will be installed along SR-11. The vertical alignment of the roadway will be raised by approximately 5 ft. 3 in. to achieve hydraulic adequacy. Riprap will also be placed along the channel banks for scour protection.

INDOT-CRO reviewed the updated project information and determined that the project continues to meet the conditions of the MPPA. See below for details.

Feature crossed (if applicable): South Fork Buck Creek

Township: Posey

City/County: Knox County

Information reviewed (please check all that apply):

General project location map USGS map Aerial photograph

Written description of project area General project area photos

Previously completed archaeology reports Interim Report

Previously completed historic property reports

Soil survey data Bridge inspection information

Other (please specify): INDOT Bridge Inspection Application System (BIAS); INDOT Historic Bridge Inventory (HBI); Indiana State Historic Architectural and Archaeological Research Database (SHAARD); Indiana Buildings, Bridges, and Cemeteries Map website; online street-view imagery; Harrison County property records (accessed via <https://harrisonin.elevatemaps.io/>)

Pugh-Rose, Suzie and Jonathan Glenn

2018 SR 11 over South Fork Buck Creek Bridge #6120 Replacement Project. Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

Bennett, Stacy N. and Jeffrey A. Plunkett

2020 Phase Ia Archaeological Field Reconnaissance for Additional Areas for Bridge Replacement on SR 11 Located 0.51 miles southwest of SR 211 in Posey Civil Township, Harrison County, Indiana. Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

Does the project appear to fall under the Minor Projects PA? yes no

If yes, please specify category, number, and condition(s) (conditions that are applicable are highlighted):

B-4. Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, under the following conditions [***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*):

- i. Work occurs in previously disturbed soils; OR
- ii. 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)

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

B-12. Replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed), under the following conditions [***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*):

- i. Work occurs in previously disturbed soils; OR
- ii. 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)

The conditions listed below must be met (*BOTH Condition i and Condition ii must be satisfied*)

- i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; AND
- ii. With regard to the subject bridge, at least one of the conditions listed below is satisfied (AT LEAST one of the conditions a, b or c, must be fulfilled):
 - a. The latest Historic Bridge Inventory identified the bridge as non-historic (see <http://www.in.gov/indot/2531.htm>);
 - b. The bridge was built after 1945, and is a common type as defined in Section V. of the Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect AND the considerations listed in Section IV of the Program Comment do not apply;
 - c. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

If no, please explain:

Additional comments:

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 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 Harrison County. No listed resources are located near the project area.

The *Harrison County Interim Report* (1987; Posey Township Scattered Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The SHAARD and IHBBCM information was checked against the Interim Report hard copy maps.

No IHSSI properties are located within 0.25 mile of the project area, a distance that would serve as a more-than-adequate area of potential effect (APE), given the project scope and surrounding terrain, which is partially wooded.

Land adjacent to the project area consists of agricultural fields and wooded areas. One property with aboveground resources is located in proximity to the project area: a farmstead with a late nineteenth-century vernacular farmhouse (altered by an addition of deck and porch). Based on a review of online street-view imagery as well a photograph from the Harrison County GIS website (<https://harrisonin.elevatemaps.io/>), the property lacks the significance and integrity necessary to be considered eligible for the National Register.

The subject structure (Bridge No. 011-31-06120, NBI No. 003070) is a concrete beam bridge, constructed in 1966. It was not included in INDOT's Historic Bridge Inventory due to its post-1965 construction date.

On November 2, 2012, the Advisory Council on Historic Preservation (ACHP) issued the Program Comment for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges (Program Comment). The Program Comment relieves federal agencies from the Section 106 requirement to consider the effects of undertakings on most concrete and steel bridges built after 1945. On March 19, 2013, federal agencies were approved to use the Program Comment for Indiana projects.

The Program Comment applies for Bridge No. 011-31-06120 because it has not been previously listed in or determined eligible for listing in the National Register of Historic Places and it is not located in or adjacent to a historic district (Section IV.A of the Program Comment). As an example of a post-1945 concrete beam bridge, the bridge is also not one of the types to which the Program Comment does not apply (arch bridges, truss bridges, bridges with movable spans, suspension bridges, cable-stayed bridges, or covered bridges [Section IV.B]).

Additionally, this bridge has not been identified as having exceptional significance for association with a person or event, being a very early or particularly important example of its type in the state or the nation, having distinctive engineering or architectural features that depart from standard designs, or displaying other elements that were engineered to respond to a unique environmental context (Section IV.C). The bridges also have not been identified as having some exceptional quality. Based on consultation between FHWA, INDOT, SHPO and interested parties, no bridges with exceptional significance were identified in Indiana (Section IV.C). Because the above criteria from the Program Comment have been met, no individual consideration under Section 106 is required for Bridge No. 011-31-06120.

Based on the available information, as summarized above, no above-ground concerns exist.

The INDOT-CRO historian reviewed the revised project information described above and determined that the above-ground analysis remains valid.

With regard to archaeological resources, a GAI Consultants, Inc. Principle Investigator who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a Phase Ia archaeological reconnaissance of the project area. A search of SHAARD found that the project area had not been examined by a professional archaeologist and there were no archaeological sites documented within or near the bridge.

Field reconnaissance of the project area was completed on March 13, 2018 by Lee Arco and Karrie Kamp. No artifacts or features were recorded. An INDOT CRO archaeologist reviewed the archaeological short report and concurred with the recommendation that no additional archaeological investigation is necessary.

The additional r/w required for the bridge replacement project was investigated for archaeological resources by NS Services (Bennett and Plunkett 2020). Approximately, 0.7 acres of newly proposed r/w was examined through eleven (11) shovel probes. No archaeological sites were identified in the additional r/w areas and no further work was recommended. The report was reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by Bennett and Plunkett (January 5, 2020). Therefore, there are no new archaeological concerns.

If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, construction in the immediate area of the find will be stopped, and the INDOT Cultural Resources Office and the Division of Historic Preservation and Archaeology will be notified immediately.

INDOT Cultural Resources staff reviewer(s): David Moffatt, Shaun Miller, and Anthony Ross

****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.*

Raquel Walker

From: Miller, Shaun (INDOT) <smiller@indot.IN.gov>
Sent: Friday, February 7, 2020 1:51 PM
To: Harlan Ford
Cc: Ross, Anthony; Jeff Plunkett (j.plunkett@nsenvservices.com); Mankin, Travis; Dye, David
Subject: RE: MPPA Submittal for Des No. 1600486
Attachments: Minor Projects PA determination form_B-4_B-12_1600486_updated.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL E-MAIL MESSAGE

Harlan,

Thank you for providing the addendum archaeology short report and supporting materials for our review of this project under the MPPA. We've determined that Categories B-4 and B-12 are still appropriate for this undertaking, thus concluding the Section 106 process. The updated determination form is attached for inclusion in the CE. Please be sure to include this version instead of the 2018 draft.

The archaeological report has been reviewed and approved by INDOT-CRO. Please forward one hard copy of the report to DHPA, indicating in the cover letter that the project qualified as a Minor Project and therefore the report is for their records only and no formal review is required under Section 106. In addition, we ask that a copy of the DHPA submittal letter be sent to INDOT CRO care of Shaun Miller during the time of submission and that the archaeological report be posted to IN SCOPE (please ensure that the uploaded file follows the IN SCOPE naming conventions).

Please keep in mind that if the scope of the project or project limits should change, our office will need to re-examine the information to determine whether the MPPA still applies. Please don't hesitate to contact us should you have any questions or need additional information.

Thanks again,

Shaun Miller
INDOT, Cultural Resources Office
Archaeology Team Lead
(317)233-6795

From: Harlan Ford [mailto:H.Ford@gaiconsultants.com]
Sent: Wednesday, January 8, 2020 2:50 PM
To: Branigin, Susan <SBranigin@indot.IN.gov>
Cc: Miller, Shaun (INDOT) <smiller@indot.IN.gov>; Kumar, Anuradha <akumar@indot.IN.gov>
Subject: MPPA Submittal for Des No. 1600486

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

Good Evening Susan,

I am submitting a request to have the above mentioned project reviewed under Category B: Types B-4 & B-12 and Category A: Type A-4 & A-9. I have attached a shapefile for the project location, as well as some maps and photos for your convenience. As this project will take place in undisturbed soils, I have also attached the archaeological short report that was prepared for this project.

Please note that this project has been previously submitted and approved by INDOT. However, due to some scope changes this project is being-submitted to be re-evaluated under the MPPA and a new archaeological short report was prepared.

Please let me know if you need anything else!

Thanks for your time,

Harlan M. Ford

Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204

T 317.570.6800 **D** 317.436.9142 **M** 423.458.5979

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INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY

402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology.

Author: Stacy N. Bennett and Jeffrey A. Plunkett

Date (month, day, year): January 5, 2020

Project Title: Phase Ia Archaeological Field Reconnaissance for Additional Areas for Bridge Replacement on SR 11 Located 0.51 miles Southwest of SR 211 in Posey Civil Township, Harrison County, Indiana

PROJECT OVERVIEW

Project Description:

The Indiana Department of Transportation is proposing to replace the structure (Bridge #6120) carrying State Road 11 over South Fork Buck Creek, located in Harrison County, Indiana. The proposed project involves replacing and widening the bridge superstructure to accommodate a deck with two 12 foot travel lanes and 6 foot shoulders from the current 10 foot travel lanes with 1-2 foot shoulders, as well as replacing elements of the substructure. The project is located 0.51 mile south of State Road 211.

INDOT Designation Number/ Contract Number: 1600486

Project Number: 19360

DHPA Number:

Approved DHPA Plan Number:

Prepared For: GAI Consultants

Contact Person: David Bourff

Address: 201 N. Illinois Street, Suite 1700

City: Indianapolis

State: IN

ZIP Code: 46204

Telephone Number: (317) 436-4841

Email Address: D.Bourff@gaiconsultants.com

Principal Investigator: Jeffrey A. Plunkett

Signature: Jeffrey Plunkett

Digitally signed by Jeffrey Plunkett
DN: cn=Jeffrey Plunkett, o=NS Services, LLC, ou=
email=j.plunkett@nsevenservices.com, c=US
Date: 2020.01.05 22:13:07 -05'00'

Company/Institution: NS Services, LLC

Address: 4974 S. Cobblestone Drive

City: Zionsville

State: IN

ZIP Code: 46077

Telephone Number: (317) 773-2774

Email Address: j.plunkett@nsevenservices.com

- Archaeological records check has determined that the project area has the potential to contain archaeological resources.
- Phase Ia reconnaissance has located no archaeological resources in the project area.
- Phase Ia reconnaissance has identified landforms conducive to buried archaeological deposits.

Actual Area Surveyed hectares: acres:

Comments:

RECOMMENDATION

- The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.
- The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.

The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.

The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

ATTACHMENTS

- Figure showing project location within Indiana.
- USGS topographic map showing the project area (*1:24,000 scale*).
- Aerial photograph showing the project area, land use, and survey methods.
- Photographs of the project area.
- Project plans (*if available*)

Other Attachments:

Appendix E

Red Flag and Hazardous Materials

Item	Appendix Page
Red Flag Investigation	E1 to E16
INDOT SAM Correspondence	E17 to E18



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: August 7, 2018

To: Site Assessment and Management
Environmental Services
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Paul Killian
GAI Consultants, Inc.
201 N. Illinois Street, Suite 1700
Indianapolis, IN 46204
p.killian@gaiconsultants.com

Re: RED FLAG INVESTIGATION
DES 1600486, State Project
Bridge Replacement Project
SR 11 over South Fork Buck Creek (Structure No. 011-31-06120)
Harrison County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) is planning a bridge replacement project for the structure carrying State Road (SR) 11 over South Fork Buck Creek (Bridge No. 011-31-06120) located in Harrison County, Indiana. The project is located approximately 0.51 mile south of SR 211 in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map. The proposed project involves replacing and widening the bridge superstructure to accommodate a deck with two 12 ft. travel lanes and 8 ft. shoulders and replacing components of the substructure or replacing the structure with a three-sided or four-sided box structure. Scour protection is likely to be required at the abutments.

Bridge and/or Culvert Project: Yes No Structure # 011-31-06120

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).

Proposed right of way: Temporary # Acres 0.1 Permanent # Acres 0.03

Type of excavation: Excavation will be limited to within existing right-of-way. Excavation is anticipated to be to the full depth of the approaches (approximately 2 ft.) and reshaping of the side slopes.

Maintenance of traffic: Traffic will be maintained through the use of road closure and an official detour route.

Work in waterway: Yes No Above ordinary high water mark: Yes No

State Project: LPA:

Any other factors influencing recommendations: N/A

*www.in.gov/dot/
An Equal Opportunity Employer*

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	1
Cemeteries	N/A	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 airports within 3.8 miles (20,000 feet) is required.

Explanation:

Pipelines: One pipeline is located within the 0.5 mile search radius. The Indiana Utilities Corp. intrastate natural gas pipeline is located approximately 0.43 mile south of the project area. No impact is expected with the proposed project.

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	10
Canal Structures – Historic	N/A	Lakes	8
NPS NRI Listed	N/A	Floodplain - DFIRM	1
NWI-Lines	2	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	2
Rivers and Streams	6	Sinking-Stream Basins	N/A

Explanation:

NWI Wetlands: Ten NWI wetlands are located within the 0.5 mile search radius. The nearest NWI wetland is located approximately 0.01 mile north of the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Lakes: Seven lakes are located within the 0.5 mile search radius. One lake feature is mapped 0.17 mile north of the project area. No impacts are expected.

NWI Lines: Two NWI lines are located within the 0.5 mile search radius. These NWI lines are associated with South Fork Buck Creek, one of which intersects the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Floodplains – DFIRM: One DFIRM floodplain polygon is located within the 0.5 mile search radius. Flood Zone A is located within the project area along the South Fork Buck Creek. Coordination with INDOT ES Ecology and Waterway Permitting will occur.

Rivers and Streams: Six streams are located within the 0.5 mile search radius. The nearest stream, South Fork Buck Creek (three segments), intersects the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Sinkhole Areas: Two sinkhole areas are located within the 0.5 mile search radius. The sinkhole areas are located approximately 0.48 mile south and 0.40 mile north of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

Explanation: The project area is not mapped within an Urbanized Area Boundary.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	N/A	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation:

No Mining/Mineral Exploration resources are located within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	N/A	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	N/A
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	N/A
Leaking Underground Storage (LUST) Sites	1	Notice of Contamination Sites	N/A

Explanation:

Leaking Underground Storage Tanks (LUSTs): One LUST site is located within the 0.5 mile search area. The BP Service Station 201 (Agency ID: 50980) is located approximately 0.49 mile northeast of the project area. The site received a No Further Action Determination Approval letter on February 3, 2017. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Harrison County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of endangered species. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species within 0.5 miles of the project area. The project is located near the town of Kent in a primarily rural setting along a forested riparian corridor. The July 19, 2016 Inspection Report for Bridge #011-31-06120 contains no information about whether bats are present or absent on the bridge. Additional investigation to confirm the presence or absence of bats on the bridge will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects" dated October 25, 2017.

An inquiry into the USFWS IPaC website did not indicate the presence of the federally endangered species, the Rusty Patched Bumblebee, in or within 0.5 mile of the project area. No impact is expected.

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE: N/A

WATER RESOURCES: The presence of the following water resources will require the preparation of a Waters of the U.S. Report and coordination with INDOT ES Ecology and Waterway Permitting:

1. One wetland is located approximately 0.01 mile north of the project area.
2. One NWI line, associated with South Fork Buck Creek, intersects the project area.
3. Three stream segments associated with South Fork Buck Creek intersect the project area.
4. The project is located within a floodplain (coordination only).

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with U.S. Fish and Wildlife Service and the Indiana Department of Natural Resources will be conducted. The IPaC regulatory review process will be used to evaluate the potential impacts of the project on the Indiana Bat and Northern Long-Eared Bat for the Range-Wide Programmatic Informal Consultation.

INDOT Environmental Services concurrence: Nicola Fohey-Breting August 7, 2018
(Signature)

Prepared by:



Paul Killian
Project Environmental Specialist
GAI Consultants, Inc.

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

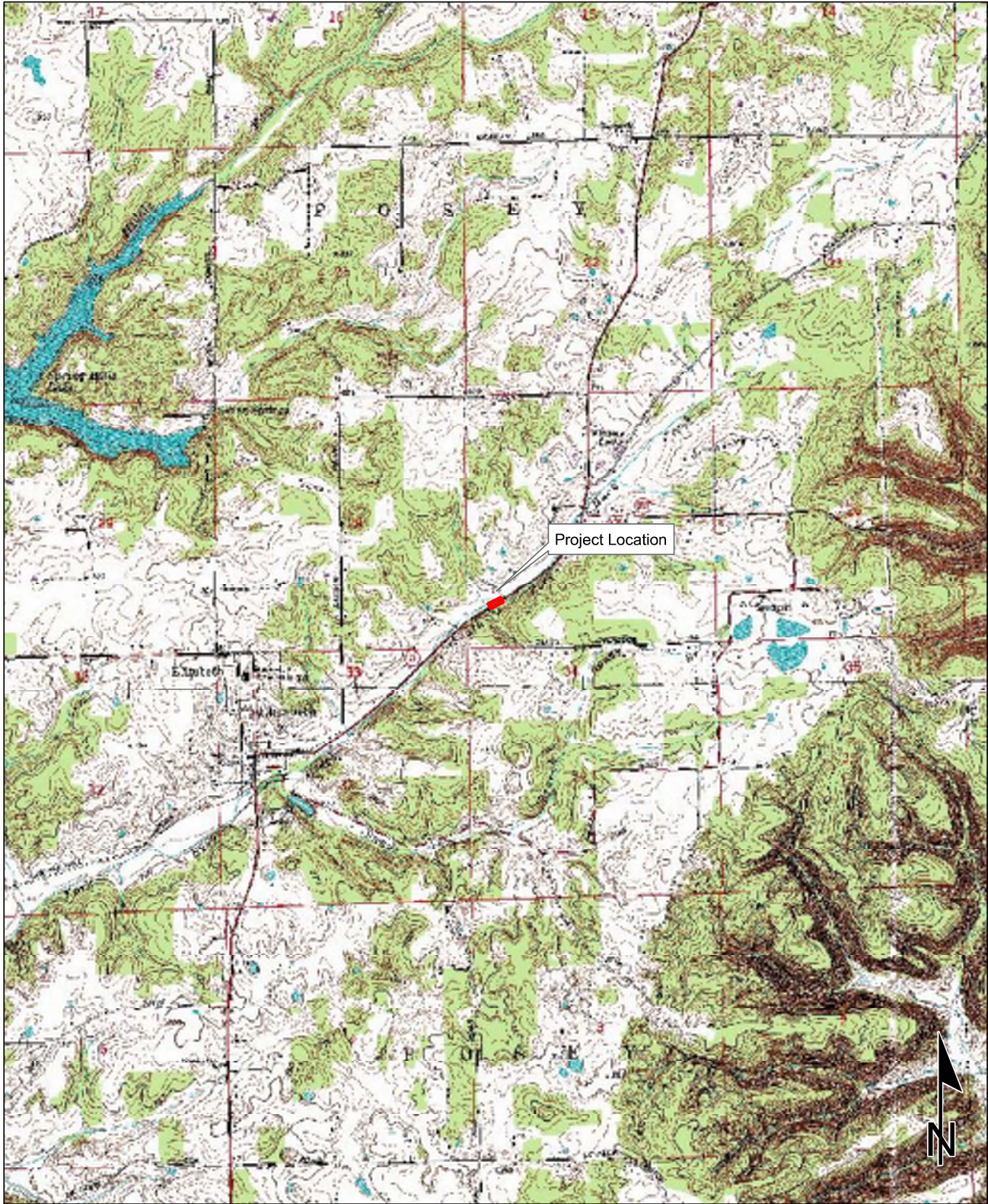
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

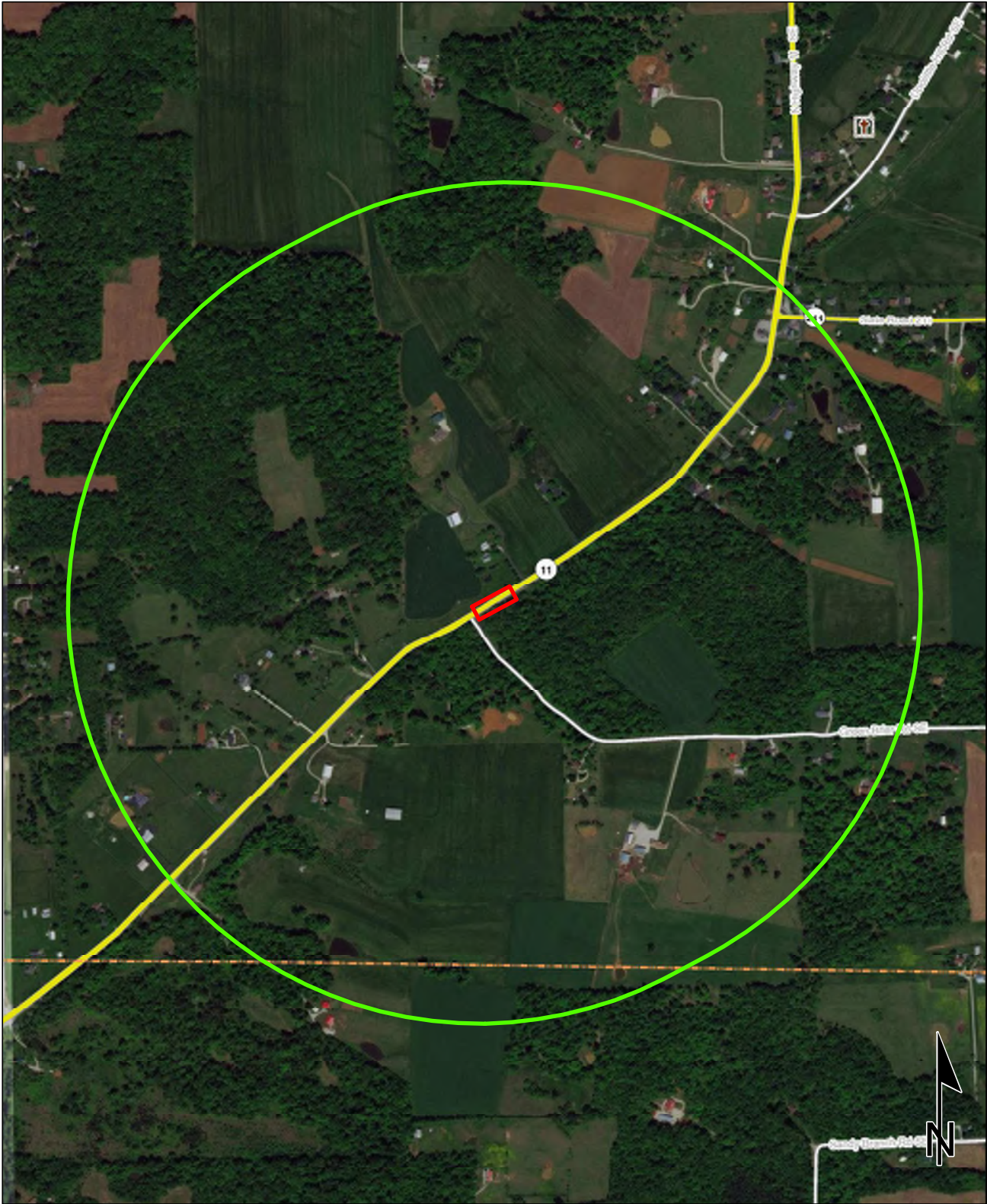
Red Flag Investigation - Topo/Quad Map
SR 11 over South Fork Buck Creek
Des. No. 1600486, Bridge Replacement
Harrison County, Indiana



Sources: 0.5 0.25 0 0.5 Miles
Non Orthophotography
Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

LANESVILLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
 SR 11 over South Fork Buck Creek
 Des. No. 1600486, Bridge Replacement
 Harrison County, Indiana



Sources:

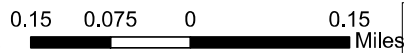
Non Orthophotography

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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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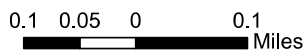
	Religious Facility		Recreation Facility		Project Area
	Religious Facility		Pipeline		Half Mile Radius
	Indiana Map		Railroad		Interstate
	Airport		Trails		State Route
	Cemeteries		Managed Lands		US Route
	Hospital		County Boundary		Local Road
	School				

Red Flag Investigation - Water Resources
 SR 11 over South Fork Buck Creek
 Des. No. 1600486, Bridge Replacement
 Harrison County, Indiana



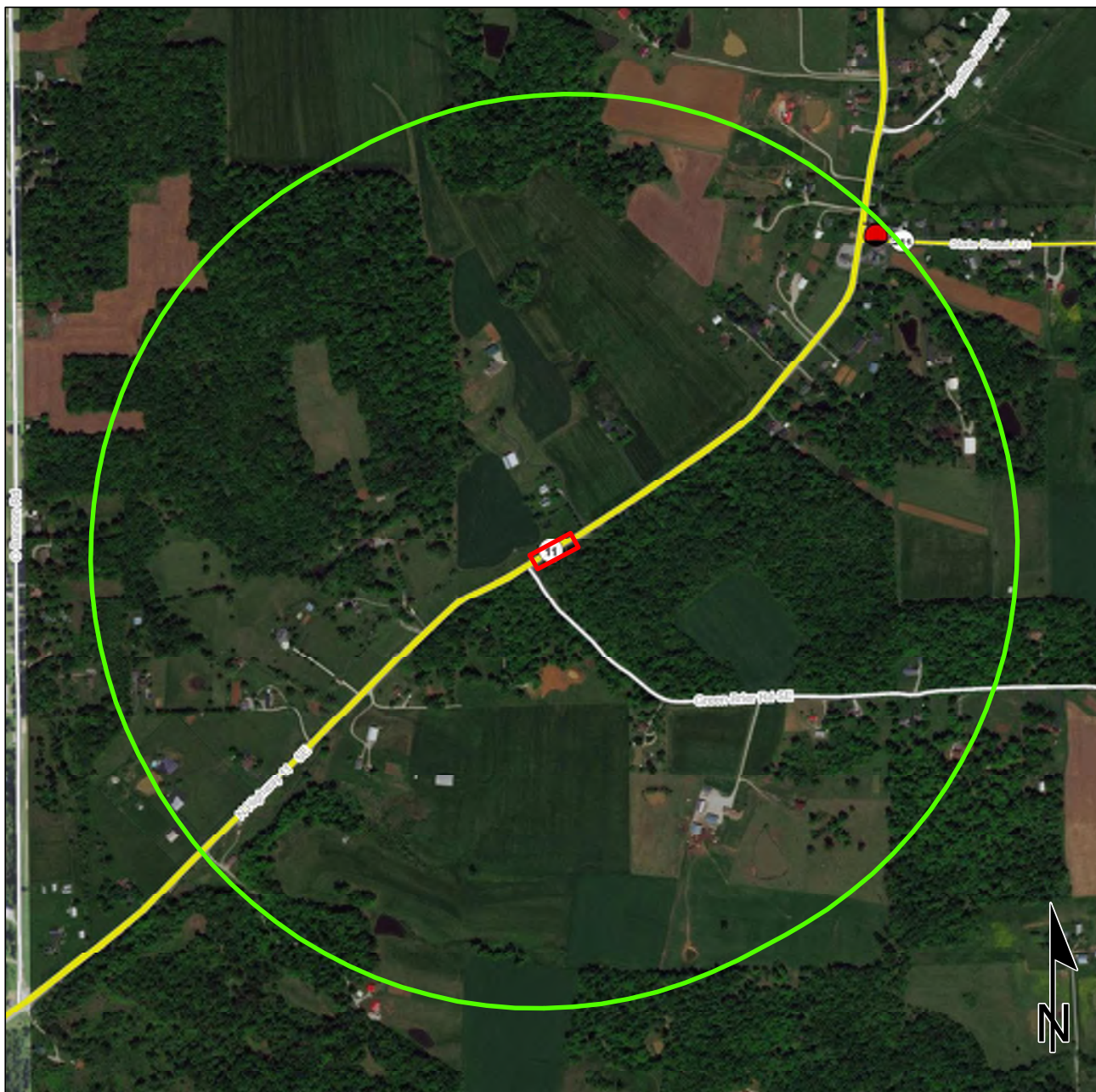
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	NW1 - Point		Wetlands		Project Area
	Karst Spring		Lake - Impaired		Half Mile Radius
	Canal Structure - Historic		Lake		Interstate
	NW1 - Line		Floodplain - DFIRM		State Route
	Stream - Impaired		Cave Entrance Density		US Route
	NPS NRI listed		Sinkhole Area		Local Road
	River		Sinking-Stream Basin		
	Canal Route - Historic		Urban Area		

Red Flag Investigation - Hazardous Materials Concerns
 SR 11 over South Fork Buck Creek
 Des. No. 1600486, Bridge Replacement
 Harrison County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Construction/Demolition Site		Solid Waste Landfill		Half Mile Radius
	Infectious/Medical Waste Site		State Cleanup Site		Interstate
	Leaking Underground Storage Tank		Superfund		State Route
	Manufactured Gas Plant		Tire Waste Site		US Route
	NPDES Facilities		Underground Storage Tank		Local Road
	NPDES Pipe Locations		Voluntary Remediation Program		
	Open Dump Waste Site		Waste Transfer Station		

0.15 0.075 0 0.15
 Miles

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Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Indiana County Endangered, Threatened and Rare Species List

County: Harrison

Species Name	Common Name	FED	STATE	GRANK	SRANK
Platyhelminthes (Flatworms)					
<i>Sphalloplana weingartneri</i>	Weingartner's Cave Flatworm		WL	G4	S4
Diplopoda					
<i>Pseudotremia blacki</i>	Black's Cave Milliped		SE	G1	S1
<i>Pseudotremia burnorum</i>	Burn's Cave Milliped		SE	G1G2	S1
<i>Pseudotremia conservata</i>	Tnc Cave Milliped		SE	G1G2	S1
<i>Pseudotremia cookorum</i>	Cook's Cave Milliped		SE	G1G2	S1
<i>Pseudotremia indianae</i>	Blue River Cave Milliped		WL	G4	S4
<i>Pseudotremia purselli</i>	Pursell's Cave Milliped		SE	G1	S1
<i>Pseudotremia salisae</i>	Salisa's Cave Milliped		SE	G1G2	S1
<i>Scoterpes sollmani</i>	Sollman's Cave Millipede			G1	S1
Crustacean: Malacostraca, Amphipods					
<i>Crangonyx packardi</i>	Packard's Cave Amphipod		WL	G4	S3
Crustacean: Malacostraca, Crayfish					
<i>Orconectes inermis inermis</i>	A Troglobitic Crayfish		WL	G5T4	S4
Crustacean: Malacostraca, Isopods					
<i>Miktoniscus barri</i>	Barr's Terrestrial Isopod		WL	G2G4	SNR
Crustacean: Copepoda					
<i>Diacyclops jeanneli</i>	Jeannel's Cave Copepod		ST	G3G4	S2
<i>Diacyclops yeatmani</i>	Yeatman's groundwater isopod		SE	G2G3	S1
Crustacean: Ostracoda					
<i>Sagittocythere barri</i>	Barr's Commensal Cave Ostracod		WL	G5	S3S4
Mollusk: Bivalvia (Mussels)					
<i>Cyprogenia stegaria</i>	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
<i>Epioblasma triquetra</i>	Snuffbox	LE	SE	G3	S1
<i>Lampsilis fasciola</i>	Wavyrayed Lampmussel		SSC	G5	S3
<i>Lampsilis ovata</i>	Pocketbook			G5	S2
<i>Ligumia recta</i>	Black Sandshell			G4G5	S2
<i>Obovaria retusa</i>	Ring Pink	LE	SX	G1	SX
<i>Plethobasus cooperianus</i>	Orangefoot Pimpleback	LE	SE	G1	SX
<i>Plethobasus cyphyus</i>	Sheepnose	LE	SE	G3	S1
<i>Pleurobema clava</i>	Clubshell	LE	SE	G1G2	S1
<i>Pleurobema coccineum</i>	Round Pigtoe			G4G5	S3
<i>Pleurobema cordatum</i>	Ohio Pigtoe		SSC	G4	S2
<i>Pleurobema pyramidatum</i>	Pyramid Pigtoe		SE	G2G3	SX
<i>Ptychobranhus fasciolaris</i>	Kidneyshell		SSC	G4G5	S2
<i>Villosa lienosa</i>	Little Spectaclecase		SSC	G5	S3
Mollusk: Gastropoda					
<i>Antroselatus spiralis</i>	Shaggy Cave Snail		SR	G3	S3

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Indiana County Endangered, Threatened and Rare Species List

County: Harrison

Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Carychium riparium</i>	Floodplain Thorn			G2	SNR
Fontigens cryptica	Hidden Springs Snail		SE	G1	S1
<i>Glyphyalinia rimula</i>	Tongued Glyph			G3	SNR
<i>Zonitoides kirbyi</i>	Shadow Gloss			G2	SNR
Ellipluran: Collembola					
Arrhopalites ater	Black Medusa Cave Springtail		ST	G2	S2
Arrhopalites lewisi	Lewis' Cave Springtail		ST	GNR	S2
<i>Dicyrtoma flammea</i>	Flaming Springtail		WL	GNR	SNR
<i>Hypogastrura gibbosus</i>	Humped Springtail		WL	GNR	SNR
<i>Hypogastrura helena</i>	Helen's Springtail		WL	GNR	SNR
Hypogastrura lucifuga	Wyandotte Cave Springtail		SE	GNR	S1
<i>Hypogastrura maheuxi</i>	Maheux Springtail		WL	GNR	SNR
<i>Hypogastrura succinea</i>	Girded Springtail		WL	GNR	SNR
<i>Isotoma christianseni</i>	Christiansen's Springtail		WL	GNR	S1
<i>Isotomiella minor</i>	Petit Springtail		WL	GNR	SNR
<i>Onychiurus casus</i>	Fallen Springtail		WL	GNR	S4
<i>Onychiurus reluctus</i>	A Springtail		WL	GNR	S4
Pseudosinella fonsa	Fountain Cave Springtail		ST	G3G4	S2
<i>Sensillanura caeca</i>	Blind Springtail		WL	GNR	SNR
<i>Sinella alata</i>	Springtail		WL	G5	S4
Sinella barri	Barr's Cave Springtail		SE	G5	S1
<i>Sinella cavernarum</i>	A Springtail		WL	G5	S4
<i>Sminthurides hypogramme</i>	springtail		WL	GNR	S1
<i>Sminthurides weichseli</i>	Weichsel's Springtail		WL	GNR	SNR
<i>Tomocerus elongatus</i>	Elongate Springtail		WL	GNR	SNR
<i>Tomocerus lamelliferus</i>	Layered Springtail		WL	GNR	SNR
<i>Tomocerus missus</i>	Relict Cave Springtail		WL	G4	S1
Insect: Coleoptera (Beetles)					
<i>Aleochara lucifuga</i>	Rove beetle		WL	GNR	S4
<i>Atheta annexa</i>	Rove beetle		WL	G4	S4
Pseudanopthalmus eremita	Cave Beetle		SE	G1G2	S1
<i>Pseudanopthalmus tenuis</i>	Cave Beetle		WL	G4	S4
Insect: Lepidoptera (Butterfly)					
Amblyscirtes hegon	Salt-and-pepper Skipper		SR	G5	S2
Amblyscirtes vialis	Common Roadside-skipper		SR	G4	S3
Artogeia virginensis	West Virginia White		SR	G3?	S3
Calycopis cecrops	Red-banded Hairstreak		SR	G5	S2S3
Cyllopsis gemma	Gemmed Satyr		SR	G4G5	S2
Erynnis martialis	Mottled Duskywing		ST	G3	S2S3
Hermeuptychia sosybius	Carolina Satyr		SR	G5	S1S2

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Indiana County Endangered, Threatened and Rare Species List

County: Harrison

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Hesperia leonardus	Leonard's Skipper		SR	G4	S2
Hesperia metea	Cobweb Skipper		ST	G4	S2S3
Thorybes pylades	Northern Cloudywing		SR	G5	S2S3
Insect: Lepidoptera (Moth)					
Catocala flebilis	The Black-dashed Underwing Moth		SR	G5	S1S3
Grammia figurata	The Figured Grammia		SR	G5	S2S3
Grammia phyllira	The Sand Barrens Grammia		SR	G4	S2S3
Holomelina opella	The Smokey Holomelina		SR	G5	S2S3
Hyperaeschra georgica	A Prominent Moth			G5	S2
Lesmone detrahens	A Moth		SR	G5	S2
Leucania inermis	A Moth		SR	G4	S2S3
Paectes abrostolella	The Barrens Paectes Moth		SR	G4	S2S3
Pagara simplex	A Moth		SR	G5	S2S3
Pangrapta decoralis	The Multicolored Huckleberry Moth		ST	G5	S2
Papaipema astuta	The Stoneroot Borer Moth		ST	G2G4	S1S2
Papaipema polymniae	The Cup Plant Borer Moth		ST	G4	S1S2
Tampa dimediatella	Red-striped Panic Grass Moth		ST	GNR	S2S3
Insect: Mecoptera					
Merope tuber	Earwig Scorpionfly		SE	G3G5	S1
Insect: Odonata (Dragonflies)					
Aeshna mutata	Spatterdock Darter		ST	G4	S1S2
Gomphus crassus	Handsome Clubtail		ST	G3G4	S2
Gomphus viridifrons	Green-faced Clubtail		ST	G3G4	S1S2
Hagenius brevistylus	Dragonhunter		SR	G5	S2S3
Neurocordulia molesta	Smoky Shadowdragon		SE	G4	S1
Neurocordulia yamaskanensis	Stygian Shadowfly		ST	G5	S1S2
Stylogomphus sigmastylus	Least Clubtail		SE	G5	S1
Stylurus amnicola	Riverine Clubtail		ST	G4	S1S2
Stylurus notatus	Elusive Clubtail		SE	G3	S1
Insect: Orthoptera					
Melanoplus tepidus	The Fearful Barrens Locust		SR	GU	S1S3
Insect: Tricoptera (Caddisflies)					
Nectopsyche pavida	A Longhorned Casemaker Caddisfly		SR	G5	S2
Pycnopsyche rossi	A Northern Casemaker Caddisfly		SE	G3	S1
Arachnida					
Calymmaria cavicola	Cave Funnel-web Spider			GNR	S1
Cicurina arcuata	A Funnel-web Weaver			GNR	S1

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Indiana County Endangered, Threatened and Rare Species List

County: Harrison

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<i>Dolomedes scriptus</i>	Lined Nursery Web Spider			GNR	S1?
<i>Dolomedes vittatus</i>	Nursery Web Spider			GNR	S1
<i>Hesperocheilus mirabilis</i>	Southeastern Cave Pseudoscorpion		WL	G5	S4
Kleptochthonius packardi	Packard's Cave Pseudoscorpion		SE	G2G3	S1S2
<i>Nesticus carteri</i>	Carter's Cave Spider			GNR	S1
Fish					
Amblyopsis spelaea	Northern Cavefish		SE	G3G4	S1
<i>Esox masquinongy</i>	Ohio River Muskellunge		SSC	G5	S1
<i>Etheostoma maculatum</i>	Spotted Darter		SSC	G2G3	S2S3
Etheostoma variatum	Variegated Darter		SE	G5	S1
<i>Notropis ariommus</i>	Popeye Shiner			G3	SX
<i>Typhlichthys subterraneus</i>	Southern Cavefish			G4	SX
Amphibian					
Cryptobranchus alleganiensis alleganiensis	Eastern Hellbender		SE	G3G4T3T4	S1
<i>Necturus maculosus</i>	Common mudpuppy		SSC	G5	S2
Reptile					
Agkistrodon piscivorus leucostoma	Western Cottonmouth		SE	G5T5	S1
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Crotalus horridus	Timber Rattlesnake		SE	G4	S2
<i>Opheodrys aestivus</i>	Rough Green Snake		SSC	G5	S3
<i>Terrapene carolina carolina</i>	Eastern Box Turtle		SSC	G5T5	S3
Bird					
<i>Accipiter striatus</i>	Sharp-shinned Hawk	No Status	SSC	G5	S2B
<i>Aimophila aestivalis</i>	Bachman's Sparrow			G3	SXB
<i>Asio otus</i>	Long-eared Owl			G5	S2
<i>Buteo lineatus</i>	Red-shouldered Hawk		SSC	G5	S3
<i>Coragyps atratus</i>	Black Vulture			G5	S1N,S2B
Dendroica cerulea	Cerulean Warbler		SE	G4	S3B
<i>Falco peregrinus</i>	Peregrine Falcon		SSC	G4	S2B
<i>Haliaeetus leucocephalus</i>	Bald Eagle		SSC	G5	S2
<i>Helmitheros vermivorus</i>	Worm-eating Warbler		SSC	G5	S3B
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B
<i>Wilsonia citrina</i>	Hooded Warbler		SSC	G5	S3B
Mammal					
Myotis grisescens	Gray Bat	LE	SE	G3	S1
<i>Myotis lucifugus</i>	Little Brown Bat		SSC	G3	S2
<i>Myotis septentrionalis</i>	Northern Myotis		SSC	G1G3	S2S3
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
<i>Neotoma magister</i>	Eastern Woodrat		SE	G3G4	S2

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Indiana County Endangered, Threatened and Rare Species List

County: Harrison

Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Perimyotis subflavus</i>	Eastern Pipistrelle		SSC	G3	S2S3
<i>Plecotus rafinesquii</i>	Rafinesque's Big-eared Bat		SSC	G3G4	SH
Vascular Plant					
<i>Acalypha deamii</i>	Mercury		SR	G4?	S2
<i>Agalinis auriculata</i>	Earleaf Foxglove		ST	G3	S1
<i>Arabis patens</i>	Spreading Rockcress		SE	G3	S1
<i>Asclepias viridis</i>	Green Milkweed		SE	G4G5	S1
<i>Asplenium resiliens</i>	Black-stem Spleenwort		SE	G5	S1
<i>Asplenium ruta-muraria</i>	Wallrue Spleenwort		SR	G5	S2
<i>Aster oblongifolius</i>	Aromatic Aster		SR	G5	S2
<i>Bacopa rotundifolia</i>	Roundleaf Water-hyssop		ST	G5	S1
<i>Baptisia australis</i>	Wild False Indigo		SR	G5	S2
<i>Bumelia lycioides</i>	Buckthorn		SE	G5	S1
<i>Calamagrostis porteri</i> ssp. <i>insperata</i>	Reed Bent Grass		ST	G4T3	S1
<i>Carex crawei</i>	Crawe Sedge		ST	G5	S2
<i>Carex decomposita</i>	Cypress-knee Sedge		ST	G3G4	S2
<i>Carex eburnea</i>	Ebony Sedge		SR	G5	S2
<i>Carex gigantea</i>	Large Sedge		ST	G4	S1
<i>Carex straminea</i>	Straw Sedge		ST	G5	S2
<i>Ceanothus herbaceus</i>	Prairie Redroot		SE	G5	S1
<i>Chamaelirium luteum</i>	Devil's-bit		SE	G5	S1
<i>Cheilanthes lanosa</i>	Hairy Lipfern		SR	G5	S2
<i>Cimicifuga rubifolia</i>	Appalachian Bugbane		SE	G3	S1
<i>Clematis pitcheri</i>	Pitcher Leather-flower		SR	G4G5	S2
<i>Cornus amomum</i> ssp. <i>amomum</i>	Silky Dogwood		SE	G5T5	S1
<i>Cyperus acuminatus</i>	Short-point Flatsedge		WL	G5	S3
<i>Dicliptera brachiata</i>	Wild Mudwort		SE	G5	S1
<i>Diodia virginiana</i>	Buttonweed		WL	G5	S2
<i>Eupatorium album</i>	White Thoroughwort		ST	G5	S1
<i>Eupatorium incarnatum</i>	Pink Thoroughwort		ST	G5	S2
<i>Gaura filipes</i>	Slender-stalked Gaura		ST	G5	S2
<i>Gentiana alba</i>	Yellow Gentian		SR	G4	S2
<i>Gentiana puberulenta</i>	Downy Gentian		ST	G4G5	S2
<i>Gentiana villosa</i>	Striped Gentian		SE	G4	S1
<i>Glyceria acutiflora</i>	Sharp-scaled Manna-grass		SE	G5	S1
<i>Gonolobus obliquus</i>	Angle Pod		SR	G4?	S2
<i>Heliotropium tenellum</i>	Slender Heliotrope		ST	G5	S2
<i>Hexalectris spicata</i>	Crested Coralroot		SR	G5	S2
<i>Houstonia nigricans</i>	Narrowleaf Summer Bluets		SR	G5	S2
<i>Hypericum denticulatum</i>	Coppery St. John's-wort		ST	G5	S2

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Indiana County Endangered, Threatened and Rare Species List

County: Harrison

Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Hypericum dolabriforme</i>	Straggling St. John's-wort		SR	G4	S2
<i>Iresine rhizomatosa</i>	Eastern Bloodleaf		SR	G5	S2
<i>Isoetes engelmannii</i>	Appalachian Quillwort		SE	G4	S1
<i>Itea virginica</i>	Virginia Willow		SE	G4	S1
<i>Juglans cinerea</i>	Butternut		WL	G4	S3
<i>Lathyrus venosus</i>	Smooth Veiny Pea		ST	G5	S2
<i>Lechea racemulosa</i>	Illinois Pinweed		SE	G5	S1
<i>Ligusticum canadense</i>	Nondo Lovage		SE	G4	S1
<i>Linum sulcatum</i>	Grooved Yellow Flax		SR	G5	S2
<i>Magnolia acuminata</i>	Cucumber Magnolia		SE	G5	S1
<i>Melica nitens</i>	Three-flower Melic Grass		ST	G5	S2
<i>Melothria pendula</i>	Creeping Cucumber		SE	G5?	S1
<i>Muhlenbergia capillaris</i>	Long-awn Hairgrass		SE	G5	S1
<i>Najas gracillima</i>	Thread-like Naiad		ST	G5?	S1
<i>Nothoscordum bivalve</i>	Crow-poison		SR	G4	S2
<i>Ophioglossum engelmannii</i>	Limestone Adder's-tongue		SR	G5	S2
<i>Orobanche riparia</i>	Bottomland Broomrape		SE	G4?	S2
<i>Oryzopsis racemosa</i>	Black-fruit Mountain-ricegrass		SR	G5	S2
<i>Oxalis illinoensis</i>	Illinois Woodsorrel		WL	G4Q	S2
<i>Oxydendrum arboreum</i>	Sourwood		SR	G5	S2
<i>Pachysandra procumbens</i>	Allegheny Spurge		SE	G4G5	S1
<i>Panicum bicknellii</i>	A Panic-grass		SE	G4?Q	S1
<i>Passiflora incarnata</i>	Purple Passion-flower		SR	G5	S2
<i>Penstemon deamii</i>	Deam Beardtongue		SR	G1	S1
<i>Phlox amplifolia</i>	Large-leaved Phlox		SR	G3G5	S2
<i>Phlox bifida</i> ssp. <i>stellaria</i>	Cleft Phlox		SE	G5?T3	S1
<i>Polygala incarnata</i>	Pink Milkwort		SE	G5	S1
<i>Polypodium polypodioides</i>	Resurrection Fern		SR	G5	S2
<i>Polytaenia nuttallii</i>	Prairie Parsley		SE	G5	S1
<i>Prenanthes aspera</i>	Rough Rattlesnake-root		SR	G4?	S2
<i>Ranunculus pusillus</i>	Pursh Buttercup		SE	G5	S1
<i>Rhynchospora corniculata</i> var. <i>interior</i>	Short-bristle Horned-rush		ST	G5TNR	S2
<i>Rubus centralis</i>	Illinois Blackberry		SE	G2?Q	S1
<i>Rubus deamii</i>	Deam Dewberry		SX	G4?	SX
<i>Rudbeckia fulgida</i> var. <i>fulgida</i>	Orange Coneflower		WL	G5T4?	S2
<i>Rudbeckia fulgida</i> var. <i>umbrosa</i>	Coneflower		SE	G5T4T5	S1
<i>Sanicula smallii</i>	Small's Snakeroot		SR	G5	S2
<i>Satureja vulgaris</i> var. <i>neogaea</i>	American Wild Basil		WL	G5	S3
<i>Saxifraga virginicensis</i>	Virginia Saxifrage		WL	G5	S3
<i>Scutellaria parvula</i> var. <i>australis</i>	Southern Skullcap		WL	G4T4?	S2

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Indiana County Endangered, Threatened and Rare Species List

County: Harrison

Species Name	Common Name	FED	STATE	GRANK	SRANK
Sedum telephioides	Allegheny Stonecrop		SR	G4	S2
Selaginella apoda	Meadow Spike-moss		WL	G5	S1
Senna obtusifolia	Blunt-leaf Senna		SR	G5	S2
Solidago shortii	Short's Goldenrod	LE	SE	G1	S1
Sparganium androcladum	Branching Bur-reed		ST	G4G5	S2
Spiranthes vernalis	Grassleaf Ladies'-tresses		WL	G5	S2
Stenanthium gramineum	Eastern Featherbells		ST	G4G5	S1
Strophostyles leiosperma	Slick-seed Wild-bean		ST	G5	S2
Thalictrum pubescens	Tall Meadowrue		ST	G5	S2
Tragia cordata	Heart-leaved Noseburn		WL	G4	S2
Trichostema dichotomum	Forked Bluecurl		SR	G5	S2
Uvularia perfoliata	Bellwort		SE	G5	S1
Valerianella chenopodiifolia	Goose-foot Corn-salad		SE	G5	S1
Viola egglestonii	Eggleston's Violet		SE	G4	S1
Vitis rupestris	Sand Grape		SE	G3	S1
Waldsteinia fragarioides	Barren Strawberry		SR	G5	S2
Wisteria macrostachya	Kentucky Wisteria		SR	G5	S2
Woodwardia areolata	Netted Chainfern		SR	G5	S2
Zizia aptera	Golden Alexanders		SR	G5	S2
High Quality Natural Community					
Barrens - bedrock limestone	Limestone Glade		SG	G4	S2S3
Barrens - chert	Chert Barrens		SG	G2	S1
Forest - upland dry	Dry Upland Forest		SG	G4	S4
Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	G4	S4
Forest - upland mesic	Mesic Upland Forest		SG	G3?	S3
Lake - pond sinkhole	Sinkhole Pond		SG	GU	S1
Primary - cave terrestrial	Terrestrial Cave		SG	GNR	SNR
Primary - cliff limestone	Limestone Cliff		SG	GU	S1
Primary - cliff sandstone	Sandstone Cliff		SG	GU	S3
Primary - wash gravel	Gravel Wash		SG	GU	S1
Wetland - swamp sinkhole	Sinkhole Swamp		SG	G2?	S1
Other Significant Element					
Freshwater Mussel Concentration Area	Mussel Bed		SG	G3	SNR
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

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From: Mathas, Marlene <MMathas@indot.IN.gov>
Sent: Wednesday, July 10, 2019 11:21 AM
To: Harlan Ford
Subject: RE: RFI Addendums for Des No. 1600486 and for Des No.1600485

EXTERNAL E-MAIL MESSAGE

Hi, Harlan –

If there are no substantive changes, then no, you don't need an Addendum. I would just make a note in the CE documents that RFI resources were reviewed again and no substantive changes were found.

Thanks!
Marlene

Marlene Mathas, CHMM
Site Assessment & Management (SAM) Team Lead
Environmental Policy Office
INDOT Environmental Services Division
(317) 232-5113

The Site Assessment and Management (SAM) Manual can be found at
<http://www.in.gov/indot/2523.htm>

Be sure to refer to the updated information in the SAM Manual for document preparation and submission.

From: Harlan Ford [<mailto:H.Ford@gaiconsultants.com>]
Sent: Wednesday, July 10, 2019 8:21 AM
To: Mathas, Marlene <MMathas@indot.IN.gov>
Subject: RFI Addendums for Des No. 1600486 and for Des No.1600485

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

Good Morning Marlene,

We have two projects mentioned above that will be over a year old before we will be able to complete the environmental document.

Des No. 1600486: The RFI was initially approved on August 7, 2018

Des No. 1600485: The RFI was initially approved on August 13, 2018

I wanted to touch base with you and see how you wanted us to handle this. I have reviewed the RFI and there are no significant changes that would impact this project. I reviewed the Site Assessment&

Management Manual and it says to contact your office to determine if an Addendum should be generated. Upon review of GIS there are some new resources that are within the 0.5 mile search radius but none of which would impact the project. There has been no significant changes to the scope of the project. Both of these project still remain small structure replacement projects. This project was put on hold due to hydrology issues and is now back on track. I wasn't sure what all information you would want to see on the addendum or if you even wanted an addendum for these projects since no substantive changes have occurred within 0.5 mile radius and project area limits that will have an impact on the project.

Thank you for your time,

Harlan M. Ford

Environmental Specialist

GAI Consultants, 201 N. Illinois Street, Suite 1700, Indianapolis, IN 46204

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Appendix F

Water Resources

Item	Appendix Page
Wetland Delineation and Stream Identification Report	F1 to F20
INDOT EWPO Approval Email	F21



Wetland Determination and Waters of the US Report

Indiana Department of Transportation (INDOT)
SR 11 over South Fork Buck Creek
Bridge Replacement Project
Des. No.: 1600486
Harrison County, Indiana

GAI Project Number: D170118.06

April 2018



Prepared by: GAI Consultants, Inc.
Indianapolis Office
201 N. Illinois Street, Suite 1700
Indianapolis, Indiana 46250

Prepared for: Indiana Department of Transportation
Seymour District
185 Agrico Lane
Seymour, IN 47274

Wetland Determination and Waters of the US Report

INDOT

SR 11 over South Fork Buck Creek
Bridge Replacement Project

Des. No.: 1600486

Harrison County, Indiana

GAI Project D170118.06

April 2018

Prepared for:

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185 Agrico Lane

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Paul D. Killian
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Table 1 NRCS Soils

Table 2 Waterbodies Identified Within the Project Study Area

Attachments

Duplicate figures and photos have been removed and are included in Appendix B.

Project Figures

~~Figure 1 State Location Map~~

~~Figure 2 USGS Topo Map~~

~~Figure 3 Aerial Location Map~~

Figure 4 NWI Wetlands Map

Figure 5 NRCS Soils Map

Figure 6 FEMA Floodzone Map

Figure 7 Waters of the US Investigation Map

~~Figure 8 Photo Location Map~~

~~Photographs~~

Preliminary Jurisdictional Determination Form

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1.0 Introduction

The Indiana Department of Transportation (INDOT) is proposing to replace the structure carrying State Road (SR) 11 over South Fork Buck Creek, located in Harrison County, Indiana (Figure 3). The proposed project involves replacing and widening the bridge superstructure to accommodate a deck with two 12 ft. travel lanes and 6ft. shoulders from the current 10 ft. travel lanes with 1-2 ft. shoulders and replacing elements of the substructure. The project is located 0.51 mile south of SR 211 in Section 27 of Township 4 South, Range 5 East as shown on the Lanesville USGS 7.5 Minute Topographic Map.

GAI Consultants, Inc. (GAI), on behalf of INDOT, conducted wetland delineations and waterbody investigations of the project study area on September 19, 2017. GAI identified approximate boundaries of waterbodies and wetlands located within the project study area. This study area was determined in the field by GAI based upon likely work areas and impacts to regulated "Waters of the United States" as a result of construction activities. This report describes the methods and results of the environmental field survey.

2.0 Methods

Wetland delineations were conducted in accordance with the 1987 United States Army Corps of Engineers (USACE) *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains Piedmont Region (Version 2.0)* (USACE, 2010). Wetlands were classified using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). Classification of the indicator status of vegetation is based on *The National Wetland Plant List: 2016 wetland ratings* (Lichvar et al. 2016).

The USACE will assert jurisdiction over traditionally navigable waters (TNW), adjacent wetlands, and non-navigable tributaries of TNW that have "relatively permanent" flow, and wetlands that border these waters, regardless of whether or not they are separated by roads, berms, and similar barriers. The USACE will use a case-by-case "significant nexus" analysis to determine whether waters and their adjacent wetlands are jurisdictional. A "significant nexus" can be found where waters, including adjacent wetlands, alter the physical, biological, or chemical integrity of the TNW based on consideration of several factors.

Each wetland and waterbody feature was given a unique map designation and each boundary flag location was recorded using a Trimble GEO XH model global positioning system mapping grade unit with the capability of sub-meter accuracy. Judgmental upland and wetland soil test pits were taken within the study corridor at the discretion of the delineator to confirm the presence or absence of wetlands in areas with exhibiting wetland indicators. Wetland boundaries and other waterbody centerlines and/or perimeters were mapped including ordinary high water mark (OHWM) and top-of-bank (TOB). Waterbody data collected included general morphological characteristics, flow regime, substrate, jurisdictional connection and significant nexus determination.

3.0 Background Information

Prior to the fieldwork, background information and existing mapping was reviewed to establish the probability and potential location of wetlands on the site. Available information from government agency documents and private sources were collected and reviewed in order to characterize the project area, as well as identify potential wetlands and other regulated features located within the project study area.

The growing season in the project area is generally between April and October in Harrison County, Indiana [United States Department of Agriculture, Natural Resource Conservation Service (USDA-NRCS)] (USDA-NRCS, 2016). Field observations were supplemented with an intensive review of United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, USDA soils mapping, historical aerial photography (ArcGIS and Google Earth), and local landscape topography/morphology.

The project study area topography is mostly flat, with elevations ranging from 730 to 740 ft. Drainage patterns were identified via topographic elevation contours to drain towards South Fork Buck Creek. The project study area is within the Mitchell Plateau physiographic region of the Southern Hills and Lowlands Region (Gray, 2000). The Mitchell Plateau is described as a broad carbonate karst plateau dissected by a few major stream systems. Land use in the vicinity of the project is primarily rural residential and agriculture.

3.1 National Wetland Inventory

The USFWS' NWI Wetlands Mapper was reviewed for potential wetland locations. These maps identify potential wetlands onsite. The NWI maps were prepared from high altitude photography and in most cases were not field verified. As a result, wetlands are sometimes erroneously identified, missed, or misidentified within this data set. The presence of an NWI wetland does not necessarily constitute the presence of a wetland meeting USACE criteria. The NWI data of the area (Figure 4) identified two NWI wetlands intersecting the project area along West Fork Buck Creek. The NWI areas (R5UBH and R4SBCx) are riverine wetlands within the project area.

3.2 Watersheds

The project study area is found within the South Fork Buck Creek, 14-digit Hydrologic Unit Code (HUC14) 05140104050040.

3.3 NRCS Soil Survey

The NRCS Soil Survey of Harrison County identified one soil type within the project study area (Figure 5). The listed soil type is not a hydric soil (Table 1).

Table 1. NRCS Soil Survey Area of Interest Results

Map Unit Name (Map Symbol)	Drainage Properties	Hydrology	Hydric Status
Kintner Loam, 1-3% Slopes (KunAW)	Moderately Well Drained	Occasional Flooding, No Ponding	Not Hydric

3.4 Federal Emergency Management Agency Floodplain Insurance Rate Maps

A review of the Federal Emergency Management Agency (FEMA) Floodplain Insurance Rate Maps (FIRM, Panels 18043C0165E and 18061C0265D) revealed that the project study lies within Zone A (Figure 6). FEMA defines Flood Zone A as areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methods. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Floodplain management standards apply.

4.0 Results

One likely jurisdictional stream was identified within the study area (Figure 7).

4.1 Waterbodies

Detailed descriptions of the delineated streams and other waterbodies are discussed below. Stream features and other waterbodies are described by morphological characteristics, flow regime, substrate, jurisdictional connection and significant nexus determination. Waterbodies identified within the project study area are represented in Table 2.

The identified stream feature is not State Waters Designated for Special Protection in Indiana (Designated Salmonid Waters, Outstanding State Resource Waters, or Exceptional Use Streams). The identified stream feature is not on the Indiana Department of Natural Resources Listing of State Natural and Scenic Rivers. The identified stream is not listed on Indiana Department of Natural Resources for Outstanding Rivers in Indiana. South Fork Buck Creek is a tributary to Buck Creek, which is a State Heritage Program Site, identified as having outstanding ecological importance, from the headwaters to the confluence with the Ohio River. The stream is not a USACE Section 10 Waters listed as navigable.

South Fork Buck Creek (approximately 104 feet onsite)

South Fork Buck Creek is a perennial, USGS Blue Line Stream, and Relatively Permanent Waterbody (RPW) that should be considered a "Waters of the United States." The stream has a drainage area of 3.014 mile at the project area. South Fork Buck Creek flows south to north through the project area. South Fork Buck Creek is a channelized stream with moderate sinuosity and a substrate comprised primarily of cobble and silt. South Fork Buck Creek has a defined bed, bank, and ordinary high water mark (OHWM). The OHWM is 6 ft. wide and 8 inches deep, including a pool at the structure that is approximately 20 ft. wide and 3 ft. deep. The riparian zone is mostly mowed lawn on the north side of SR 11 (*Festuca rubra*, FACU, *Poa pratensis*, FAC, *Paspalum spp*, and *Trifolium pretense/repens*, FACU), with a small native and invasive herbaceous riparian zone (approximately 5 ft.) comprised of Japanese stiltgrass (*Microstegium vimineum*, FAC), reed canary grass (*Phalaris arundinacea*, FACW), water horehound (*Lycopus americanus*, OBL), ironweed (*Vernonia fasciculate*, FAC), jewel weed (*Impatiens capensis*, FACW), and rough leaf goldenrod (*Solidago rugosa*, FAC). On the south side of SR 11, the riparian zone is forested and includes honey suckle (*Lonicera maackii*, FAC), American sycamore (*Platanus occidentalis*, FACW), American elm (*Ulmus Americana*, FACW), red maple (*Acer rubrum*, FAC), hackberry (*Celtis occidentalis*, FACU), and black locust (*Juglans nigra*, FACU). South Fork Buck Creek discharges to Buck Creek (RPW), which discharges to the Ohio River (RPW and TNW).

4.2 Wetlands

No wetland features that appeared to meet USACE wetland criteria were observed within the project boundary. As wetland characteristics were not observed, no soil pits were excavated.

4.3 Roadside Ditches and Other Drainages

All roadside ditches and other surface drainages within the study area were also evaluated for consideration as jurisdictional "Waters of the United States" with respect to the Clean Water Act Rule [40 CFR 230.3(3)(iii)]. Jurisdictional ditches must meet the definition of tributary, have an OHWM, and flow directly or indirectly through another water to a TNW. Likely jurisdictional ditches include: ditches with perennial flow; ditches with intermittent flow that drain wetlands; or ditches, regardless of flow, that are excavated in or relocate a tributary. Jurisdictional wetlands may be present within, or connected to another jurisdictional "Waters of the United States" in regard to significant nexus analysis through, non-jurisdictional ditches or surface drainages.

Two roadside ditches were observed within the study area, however, none of the roadside ditches or other drainages would be considered jurisdictional or likely jurisdictional within the study area as these features were excavated in upland soils to convey upland drainage.

5.0 Conclusions

Wetland delineations and stream investigations for the SR 11 over South Fork Buck Creek bridge replacement project were conducted on September 19, 2017. One likely jurisdictional stream was identified within the study area. No wetlands were delineated within the study area.

All statements in this document pertaining to the jurisdictional status of streams and wetlands with regard to USACE and state regulations represent the opinion of GAI and are based on present USACE guidance. The jurisdictional status of these features may be confirmed a USACE Jurisdictional Determination and/or by state agencies.

Every effort should be taken to avoid and minimize impacts to the resources outlined in this report. If impacts are necessary, then mitigation may be required. Please note that the final determination of jurisdictional waters is ultimately made by the USACE and this report is our best judgment based on the guidelines set forth by the USACE.

6.0 References

- Cowardin, D.M., Carter, V., Golet, F.C., and La Roe, E.T. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. Publication No. FWS/OBS-79/31. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. United States Department of the Army, United States Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.
- United States Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains Piedmont Region, Version 2.0*. ERDC/EL TR-12.1. United States Army Engineer Research and Development Center, Vicksburg, Mississippi.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2017. *Field Office Technical Guide, WETS Climatic Data for Harrison County, IND*. Available at <http://efotg.sc.egov.usda.gov/treemenuFS.aspx>. Accessed August 2017.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific*. U.S. Department of Agriculture Handbook, 296.

Table 2
Waterbody Identified within the Project Study Area

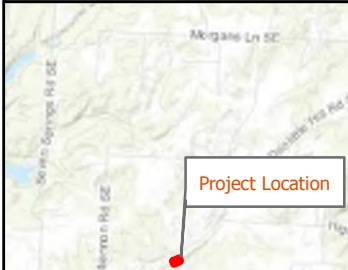
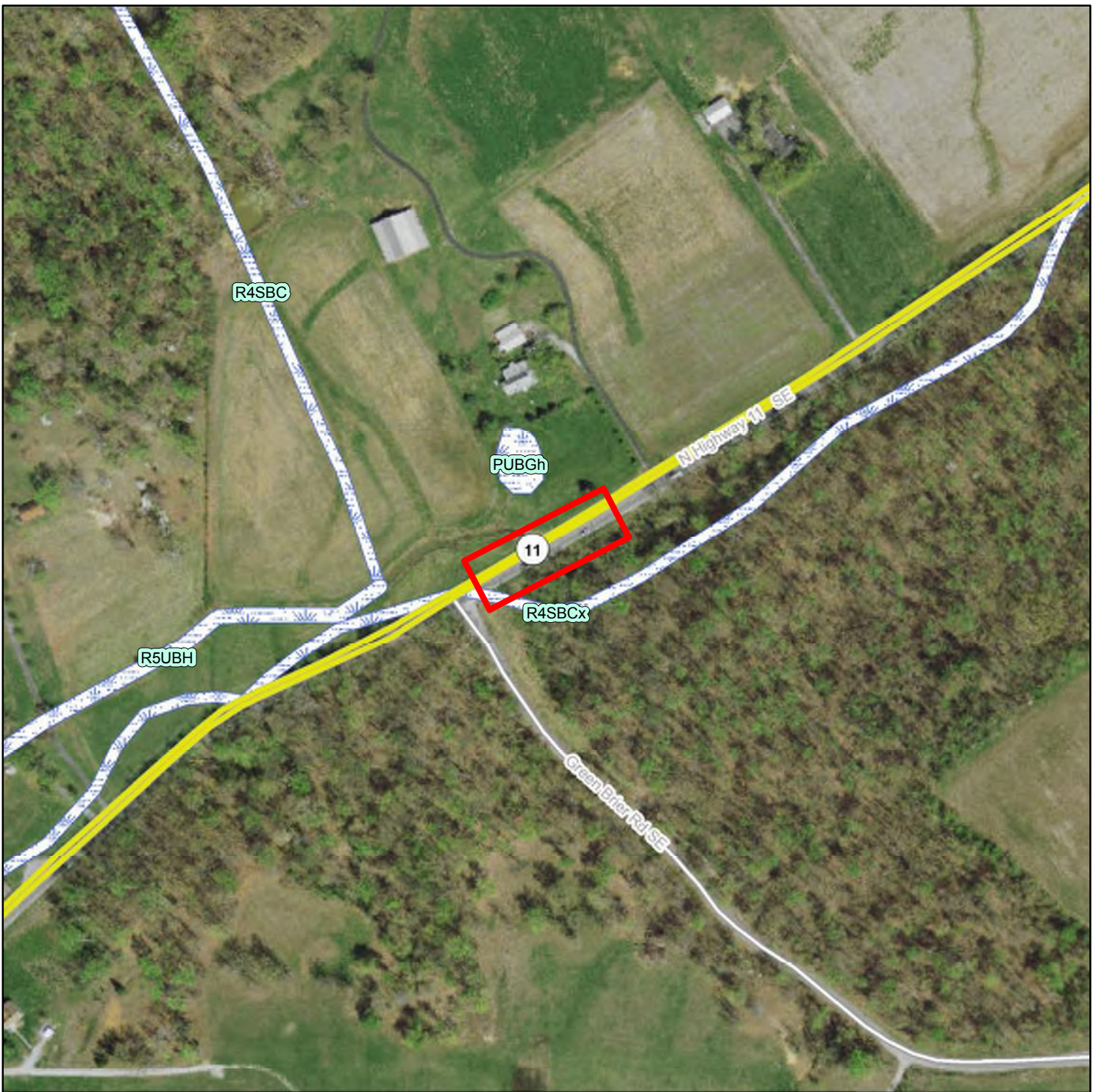
Feature Name	Photo No.	Latitude, Longitude ¹	Type	OHWM Width (ft)	OHWM Depth (ft)	TOB Width (ft)	TOB Depth (ft)	Length or Acres Within Study Area ²	USGS Blue-Line Stream	Riffles and Pools	Quality	"Waters of the US"	Indiana or Federal Special Listing ^{3,4,5,6,7,8}	Open Ended ²
South Fork Buck Creek	5-11	38.129846°, -85.956255°	Per.	6	0.67	22	4	104	Yes	Yes	Good	Yes	No	Yes

Notes:

- ¹ Decimal degrees; Coordinates provided in NAD 83.
- ² Extent of stream or open water within study area. Stream or open water may extend beyond these limits if noted as open ended.
- ³ U.S. Army Corps of Engineers Navigable Streams in Indiana Listing (Section 10 Waters) Louisville and Detroit Districts.
- ⁴ Indiana Department of Natural Resources Listing of State Natural and Scenic Rivers. Rev. 1996. Accessed August 2016.
- ⁵ Indiana Department of Natural Resources Outstanding Rivers List for Indiana. Indiana Register. Information Bulletin #4. June 4, 2013. Accessed August 2016.
- ⁶ Indiana Department of Natural Resources Listing of Public Freshwater Lakes. Information Bulletin #61. October 1, 2010. Accessed August 2016.
- ⁷ State Waters Designated for Special Protection in Indiana (Designated Salmonid Waters, Outstanding State Resource Waters, or Exceptional Use Streams).
- ⁸ Indiana Department of Natural Resources Navigable Waterways Roster.

Project Figures

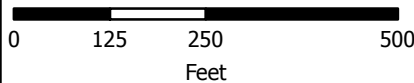
Duplicate Figures have been removed and are included in Appendix B.



NWI Wetlands Map

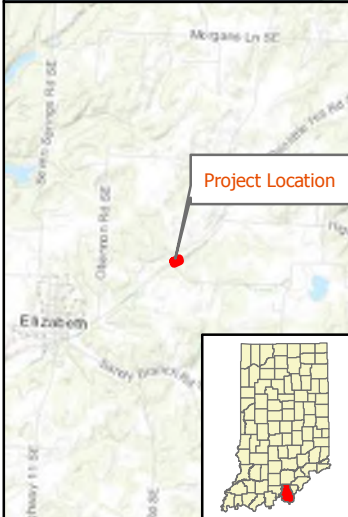
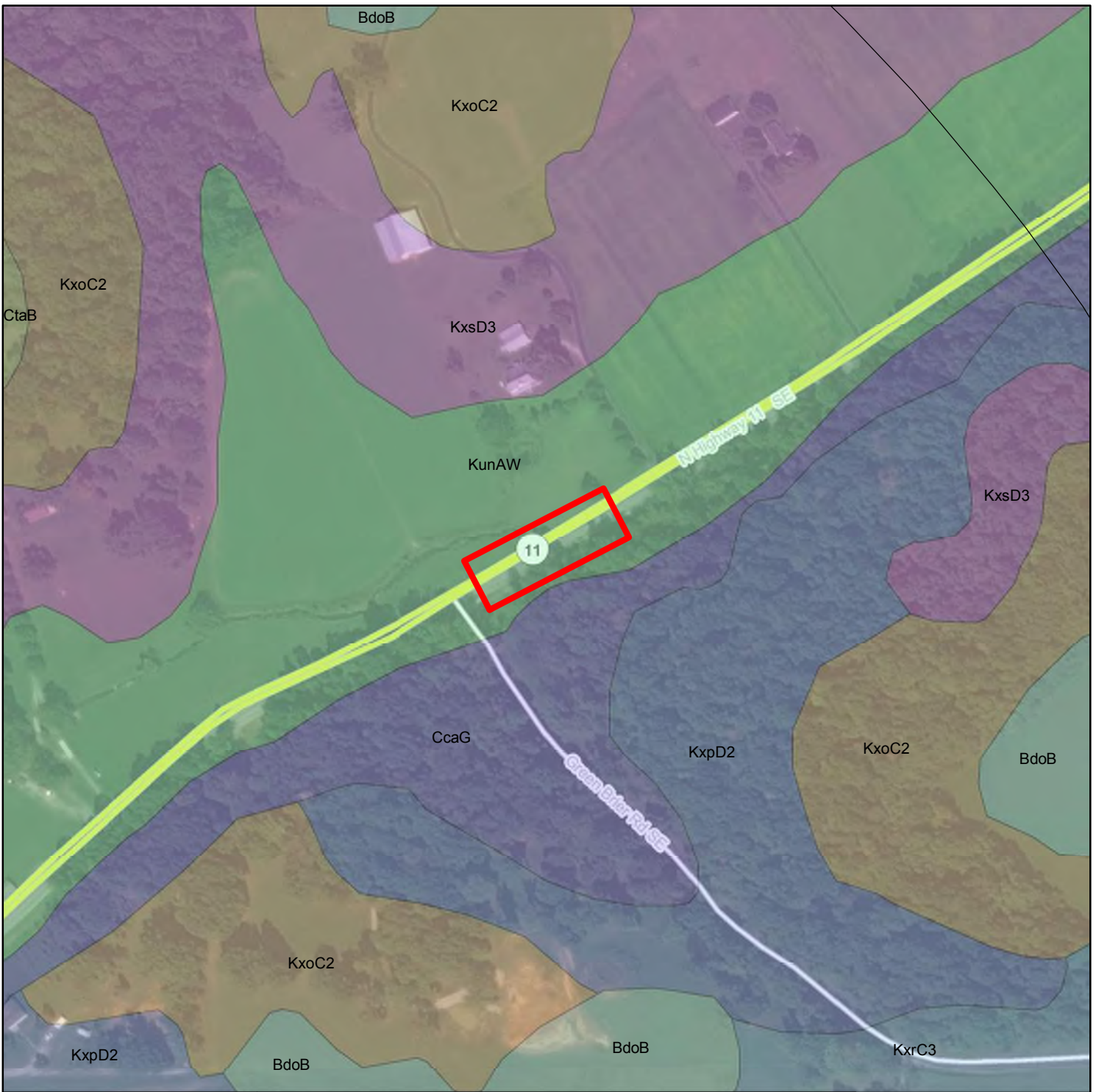
SR 11 over South Fork Buck Creek Bridge Replacement

Harrison County, Indiana Des 1600486



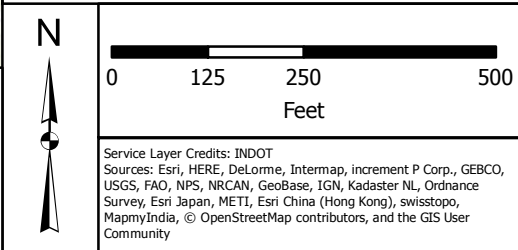
Service Layer Credits: INDOT
 Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Indiana Spatial Data Portal, UITS, ESRI

Legend			
	Study Area		Interstate
	Delineated Stream		Delineated Wetland
	Encapsulated Stream		Wetland Open End
	Photo Location Point		NWI Wetland
	Upland Data Point		Contours
	Wetland Data Point		US Roads
			State Roads
			Local Roads
			Railroad

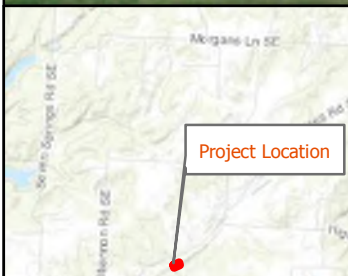
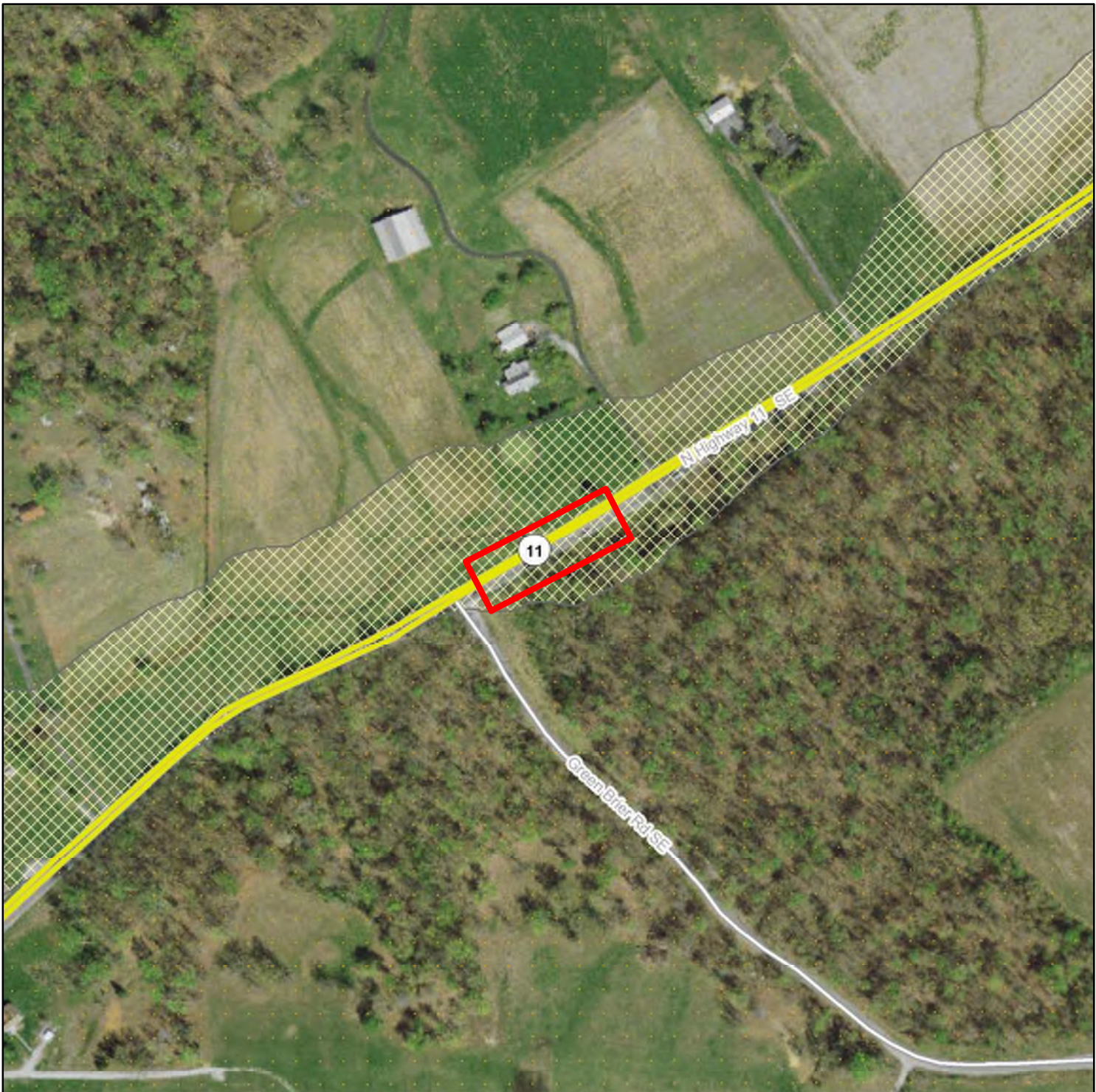


NRCS Soils Map

SR 11 over South Fork Buck Creek Bridge Replacement Harrison County, Indiana Des 1600486

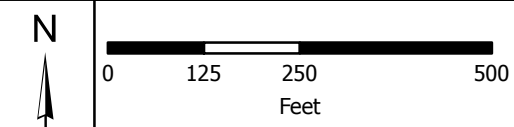


Legend	
	Study Area
	Interstate
	US Roads
	State Roads
	Local Roads
	Railroad
	KunAW-Kintner loam, Not Hydric



FEMA Floodzone Map

SR 11 over South Fork Buck Creek Bridge Replacement Harrison County, Indiana Des 1600486



Service Layer Credits: INDOT
 Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

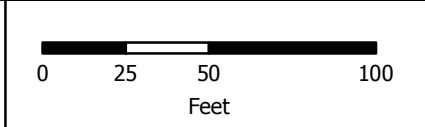
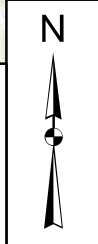
Legend	
	Study Area
	FLOODWAY
	Zone A
	Zone AE
	Zone X
	Interstate
	US Roads
	State Roads
	Local Roads
	Railroad

FEMA FIRM Panels:
 18043C0165E
 18061C0265D



Waters of the US Investigation Map

SR 11 over South Fork Buck Creek Bridge Replacement Harrison County, Indiana Des 1600486



Service Layer Credits: INDOT
 Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus

Legend			
	Study Area		Interstate
	Delineated Stream		US Roads
	Encapsulated Stream		State Roads
	Photo Location Point		NWI Wetland
	Upland Data Point		Wetland Open End
	Wetland Data Point		Contours
			Local Roads
			Railroad

PHOTOGRAPHS

Duplicate Photos have been removed and are included in Appendix B.

Preliminary Jurisdictional Determination Form

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): Report: 4/24/18

Field Investigation: 9/19/17

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Paul Killian
GAI Consultants
201 N. Illinois Street, Suite 1700
Indianapolis, IN 46204

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

Louisville District

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

INDOT Des. No. 1600486. SR 11 over SF Buck Creek bridge replacement project is located 0.51 mile south of SR 211 in the Harrison County, Indiana.

(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: Indiana County: Harrison City: Elizabeth

Center coordinates of site (lat/long in degree decimal format):

Lat. 38.129846°N, Long. -85.956255°W

Universal Transverse Mercator:

Name of nearest waterbody: South Fork Buck Creek

Identify (estimate) amount of waters in the review area:

Non-wetland waters: linear feet: 104 (ft) and/or acres.

Cowardin Class: R5UBH (Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded)

Stream Flow: Perennial

Wetlands: 0.00 acres

Cowardin Class: N/A

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: None

Non-Tidal: None

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

This preliminary JD finds that there "*may be*" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Delineation report dated April 2018.


Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Office concurs with data sheets/delineation report.

- Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: USGS National Hydrography Dataset; U.S. Geological Survey in cooperation with U. S. Environmental Protection Agency and U.S. Forest Service; <http://viewer.nationalmap.gov/viewer>.
- USGS NHD data.
- USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 24K Lanesville.
- USDA Natural Resources Conservation Service Soil Survey. Citation: USDA NRCS Soil Survey Geographic (SSURGO) Database for Harrison County, Indiana. Available online at <http://websoilsurvey.nrcs.usda.gov>.
- National wetlands inventory map(s). Cite name: NWI accessed 2017
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: FEMA accessed 2017.
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): ESRI World Imagery, 2014
or Other (Name & Date): Site Photos Dated 9/19/2017.
- Previous determination(s). File no. and date of response letter: .
- Other information (please specify): .

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory Project Manager
(REQUIRED)



4/24/18
Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining the
signature is impracticable)

Site Number	Latitude	Longitude	Cowardin Class	Estimated Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
South Fork Buck Creek	38.129846	-85.956255	Riverine	221 ft.	Non-section 10, non-wetland

Raquel Walker

From: Sperry, Steve <SSPERRY@indot.IN.gov>
Sent: Wednesday, April 25, 2018 1:43 PM
To: Paul Killian
Cc: Mankin, Travis; Rehder, Crystal
Subject: APPROVED: WOUS Report, SR 11 Bridge Replacement over SF Buck Crk, 0.51 mile south of SR 211, Harrison Co 1600486
Attachments: 1600486 Waters Rprt_Final 20180425.pdf

Dear Mr. Killian

Thank you for submitting the waters report for the above referenced project.

Travis

The approved report is attached and can also be found on Projectwise through this link: [1600486 Waters Rprt_Final 20180425.pdf](#) *It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.*

The information in this report should be used by the Project Designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur *before* mitigation will be considered. If mitigation is required, the Project Manager or Project Designer must coordinate with the Ecology and Waterway Permitting Office to discuss how adequate compensatory mitigation will be provided.

The Project Manager should notify the Ecology and Waterway Permitting Office if there is any change to the project footprint presented in this report. Such changes may require additional fieldwork and submittal of an updated waters report covering areas not previously investigated. *This report is only valid for a period of five years from the date of earliest fieldwork.* If the report expires prior to waterway permit application submittal, additional fieldwork and a revised waters report will be required.

This waters report will not be sent to the United States Army Corps of Engineers (USACE) or the Indiana Department of Environmental Management (IDEM) until the waterways permit applications are submitted to these agencies.

Thanks
Steve

Stephen C. Sperry

Ecology and Permits Coordinator

Division of Environmental Services

IGCN Room 642

100 N. Senate Ave.

Indianapolis, IN 46204

Office: (317) 232-5206

Email: ssperry@indot.in.gov



Appendix G

Air Quality

Item	Appendix Page
Statewide Transportation Improvement Plan (STIP)	G1

This project is part of contract B-39896 under lead Des No. 1600485. Des No. 1600486 is included in the 2020-2024 STIP by reference.

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024	
Harrison County																			
Harrison County	37259 / 1383370	A 07	IR 1007	New Road Construction	George's Hill Rd to Old Lanesville Rd N - N I-64 Harrison Co	Seymour	1.398	DEM	\$576,698.48	Demonstration Fund Program	CN	\$1,334,749.80	\$0.00	\$1,334,749.80					
Comments:Adding 576698.48 Demo funds for CE - Earmark IN 141																			
Harrison County	38176 / 1500206	Init.	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Seymour		0	STPBG	Local Bridge Program	PE	\$63,158.28	\$0.00	\$5,356.58	\$57,801.70				
											Local Funds	PE	\$0.00	\$15,789.56	\$1,339.14	\$14,450.42			
Indiana Department of Transportation	39413 / 1593019	Init.	I 64	HMA Overlay, Preventive Maintenance	From SR 66 to SR 135	Seymour	12.495	NHPP		Road Construction	CN	\$7,110,426.60	\$790,047.40		\$7,900,474.00				
Indiana Department of Transportation	39896 / 1600485	Init.	SR 11	Br Repl, Reinforced Conc. Construction	0.85 mile S SR 211, over S. Fork Buck Creek	Seymour		0	STPBG	Bridge ROW	RW	\$88,000.00	\$17,000.00	\$85,000.00					
											Bridge Construction	CN	\$1,558,980.00	\$389,745.00		\$1,948,725.00			
Corydon	40028 / 1700267	Init.	ST 1011	Bike/Pedestrian Facilities	Capitol Avenue Gateway & Urban Trail- Stellar Community	Seymour		0	STPBG	Local Transportation Alternatives	CN	\$2,500,000.00	\$0.00	\$2,500,000.00					
											Local Funds	CN	\$0.00	\$513,979.00	\$513,979.00				
Indiana Department of Transportation	40065 / 1602170	Init.	SR 111	HMA Overlay, Preventive Maintenance	12.56 miles S of SR 211 to SR 211	Seymour	12.56	STPBG		Road Construction	CN	\$2,143,678.40	\$535,919.60	\$2,679,598.00					
Indiana Department of Transportation	40065 / 1602170	A 11	SR 111	HMA Overlay, Preventive Maintenance	12.56 miles S of SR 211 to SR 211	Seymour	12.56	STBG	\$4,351,623.00	Road Construction	CN	\$1,337,620.00	\$334,405.00	\$1,672,025.00					
Comments:Increase of CN in FY 2020 of \$1,672,025 for total CN of \$4,351,623. No MPO.																			
Indiana Department of Transportation	40416 / 1701517	Init.	SR 335	Bridge Deck Replacement	02.15 N of SR 135 at Crandall Branch Creek	Seymour		0	STPBG	Bridge ROW	RW	\$16,000.00	\$4,000.00		\$20,000.00				
											Bridge Construction	CN	\$512,626.40	\$128,156.60		\$640,783.00			
Indiana Department of Transportation	40417 / 1700057	Init.	SR 62	Small Structure Replacement	At 6.38 miles E of SR 337	Seymour		0	STPBG	Bridge ROW	RW	\$8,000.00	\$2,000.00		\$10,000.00				
											Bridge Construction	CN	\$308,540.00	\$77,135.00		\$385,675.00			
Indiana Department of Transportation	40417 / 1802986	A 04	SR 62	Small Structure Replacement	5.73 miles E of SR 337	Seymour		0	STBG	Bridge ROW	RW	\$40,000.00	\$10,000.00				\$50,000.00		
											Bridge Consulting	PE	\$160,000.00	\$40,000.00	\$200,000.00				
											Bridge Construction	CN	\$586,059.20	\$146,514.80					\$732,574.00
Comments:Amend PE in FY 2020, RW in 2023 and CN in FY 2024 to current STIP. No MPO.																			

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Appendix H

Environmental Justice

Item	Appendix Page
EJ Analysis	H1 to H4

Environmental Justice (EJ) Analysis

Bridge Replacement, SR-11 over South Fork Buck Creek

Harrison County, Indiana

Des. No. 1600486

	Community of Concern (COC)	Affected Community (AC 1)
	Harrison County, Indiana	Census Tract 606
Income		
Total population for the purpose of surveying poverty income:	38,900	6,692
Population with income in the past 12 months below poverty level:	5,005	572
Percent Low Income	12.87%	8.55%
<i>125% of COC</i>	<i>16.08%</i>	
Potential Low-income EJ Concern?		No
Race		
Total Population for the purpose of surveying race:	39,450	6,798
Total population non-hispanic/latino; white alone:	37,739	6,552
Number of Minorities	1,711	246
Percent of Minorities	4.34%	3.62%
<i>125% of COC</i>	<i>5.42%</i>	
Potential Minority EJ Concern?		No

B17001: POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE - Universe: Population for whom poverty status is determined 2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Harrison County, Indiana		Census Tract 606, Harrison	
	Estimate	Margin of	Estimate	Margin of
Total:	38,900	+/-191	6,692	+/-522
Income in the past 12 months below poverty	5,005	+/-790	572	+/-234
Male:	2,265	+/-468	307	+/-150
Under 5 years	290	+/-149	27	+/-36
5 years	32	+/-43	2	+/-3
6 to 11 years	261	+/-109	45	+/-36
12 to 14 years	75	+/-50	17	+/-27
15 years	29	+/-46	0	+/-16
16 and 17 years	50	+/-68	0	+/-16
18 to 24 years	195	+/-111	9	+/-16
25 to 34 years	342	+/-201	15	+/-24
35 to 44 years	260	+/-124	46	+/-44
45 to 54 years	308	+/-138	69	+/-63
55 to 64 years	280	+/-119	64	+/-73
65 to 74 years	106	+/-68	0	+/-16
75 years and over	37	+/-34	13	+/-20
Female:	2,740	+/-475	265	+/-119
Under 5 years	87	+/-70	0	+/-16
5 years	26	+/-26	0	+/-16
6 to 11 years	209	+/-114	15	+/-22
12 to 14 years	71	+/-52	0	+/-16
15 years	0	+/-24	0	+/-16
16 and 17 years	97	+/-80	14	+/-21
18 to 24 years	297	+/-135	22	+/-37
25 to 34 years	465	+/-196	24	+/-30
35 to 44 years	330	+/-134	31	+/-30
45 to 54 years	485	+/-179	72	+/-46
55 to 64 years	402	+/-148	40	+/-56
65 to 74 years	129	+/-80	47	+/-58
75 years and over	142	+/-78	0	+/-16

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An "" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An "" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An "" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

**B03002: HISPANIC OR LATINO ORIGIN BY RACE - Universe: Total population
2013-2017 American Community Survey 5-Year Estimates**

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Harrison County, Indiana		Census Tract 606, Harrison	
	Estimate	Margin of	Estimate	Margin of
Total:	39,450	*****	6,798	+/-531
Not Hispanic or Latino:	38,773	*****	6,736	+/-530
White alone	37,739	+/-129	6,552	+/-546
Black or African American alone	87	+/-66	0	+/-16
American Indian and Alaska Native alone	220	+/-174	82	+/-117
Asian alone	143	+/-62	0	+/-16
Native Hawaiian and Other Pacific Islander	0	+/-24	0	+/-16
Some other race alone	92	+/-121	73	+/-115
Two or more races:	492	+/-174	29	+/-37
Two races including Some other race	29	+/-39	0	+/-16
Two races excluding Some other race,	463	+/-163	29	+/-37
Hispanic or Latino:	677	*****	62	+/-41
White alone	429	+/-159	53	+/-39
Black or African American alone	7	+/-11	0	+/-16
American Indian and Alaska Native alone	0	+/-24	0	+/-16
Asian alone	0	+/-24	0	+/-16
Native Hawaiian and Other Pacific Islander	0	+/-24	0	+/-16
Some other race alone	219	+/-163	9	+/-15
Two or more races:	22	+/-32	0	+/-16
Two races including Some other race	0	+/-24	0	+/-16
Two races excluding Some other race,	22	+/-32	0	+/-16

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '*' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '*' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.



Des. 1600486

Legend:

Your Selections

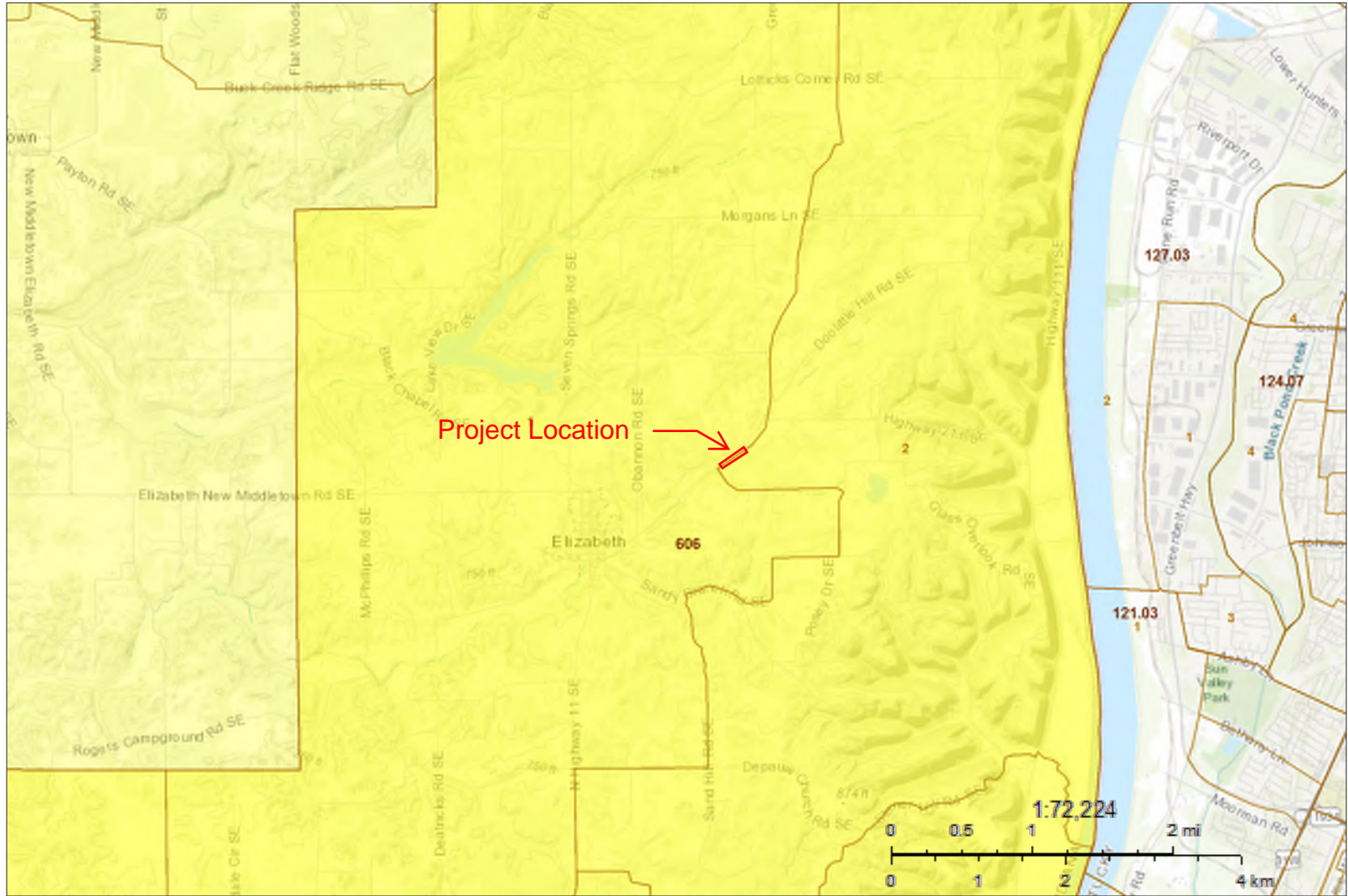
- 2017 boundaries were used to map 'Your Selections'

Selection Results

No Legend

2017 Boundaries

- Census Tract
- Block Group



Appendix I

Additional Studies

Item	Appendix Page
DOI Land & Water Conservation Fund Grants	I1
IDNR-DOR LWCF Property List	I2

Land and Water Conservation Fund Grants: Indiana

The Park Service is finding out about more closures and conversions of federally protected parks than ever before. But no one knows just how many, so InvestigateWest compiled this database, which lists every LWCF grant between 1965 and 2011, as a starting point. Click a column header to re-sort the table. Click-shift to add a secondary sort.

[RETURN TO THE PROJECT PAGE](#)

FILTER THE LIST: ×

Grant ID & Element	Grant Name	Sponsor	County	State	Grant Amount	Year Approved	Year Completed	Type
18 - XXX	WALTER Q. GRESHAM MEMORIAL PARK	HARRISON COUNTY PARK BOARD	HARRISON	IN	\$17,271.23	1967	1968	Combination
60 - XXX	HAYS-WOOD NATURE RESERVE PARK	HARRISON COUNTY PARK BOARD	HARRISON	IN	\$42,387.02	1970	1973	Combination
61 - XXX	BUFFALO TRACE PARK	PALMYRA PARK BOARD	HARRISON	IN	\$7,125.00	1971	1973	Acquisition
98 - XXX	BLUE RIVER COMPLEX ACQ	DEPT. OF NATURAL RESOURCES	HARRISON	IN	\$449,560.60	1971	1978	Acquisition
107 - XXX	BUFFALO TRACE PARK DEVELOPMENT	HARRISON COUNTY PARK BOARD	HARRISON	IN	\$97,947.39	1972	1974	Development
191 - XXX	HARRISON COUNTY SWIMMING POOL	HARRISON COUNTY PARK BOARD	HARRISON	IN	\$63,000.00	1975	1977	Development
219 - XXX	HARRISON-CRAWFORD ST FOR GROUP CAMP	DEPT. OF NATURAL RESOURCES	HARRISON	IN	\$41,753.15	1975	1979	Development
229 - XXX	HARRISON-CRAWFORD ST FOR TRAILS	DEPT. OF NATURAL RESOURCES	HARRISON	IN	\$145,797.40	1975	1977	Development
193 - XXX	HARRISON PARK TENNIS COURT LIGHTING	HAMMOND PARK BOARD	LAKE	IN	\$8,830.75	1975	1977	Development
260 - XXX	WYANDOTTE WOODS ST REC AREA	DEPT. OF NATURAL RESOURCES	HARRISON	IN	\$2,386,856.00	1976	1981	Development
317 - XXX	D/SOUTH HARRISON PARK	HARRISON COUNTY PARK BOARD	HARRISON	IN	\$407,458.00	1978	1983	Combination
362 - XXX	HARRISON-CRAWFORD STATE FOREST LAND	DEPT. OF NATURAL RESOURCES	MULTI-COUNTY	IN	\$26,750.00	1979	1984	Acquisition
369 - H	HARRISON PARK RENOVATION	HAMMOND PARK BOARD	LAKE	IN	\$107,415.11	1980	1984	Development
398 - XXX	D/HARRISON RIDGE PARK	COLUMBUS PARK BOARD	BARTHOLOMEW	IN	\$87,490.47	1981	1985	Combination
412 - XXX	HARRISON RIDGE PARK - PHASE II	COLUMBUS PARK BOARD	BARTHOLOMEW	IN	\$9,174.47	1983	1984	Development
559 - XXX	O'BANNON WOODS STATE PARK AQUATIC CENTER	DEPT. OF NATURAL RESOURCES	HARRISON	IN	\$1,083,852.00	2005	2009	Redevelopment

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Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated December 2019)

ProjectNumber	SubProjectCode	County	Property
1800018	1800018	Harrison	Walter Q. Gresham Memorial Park
1800060	1800060	Harrison	Hayswood Nature Preserve & Indian Creek Woods
1800061	1800061	Harrison	Buffalo Trace Park
1800098	1800098	Harrison	Harrison-Crawford State Forest
1800107	1800107	Harrison	Buffalo Trace Park
1800191	1800191	Harrison	Harrison Poolside Park & Rhoads Memorial Pool
1800219	1800219	Harrison	Harrison-Crawford State Forest
1800229	1800229	Harrison	Harrison-Crawford State Forest
1800260	1800260	Harrison	Wyandotte Woods State Recreation Area (Harrison-Cr
1800317	1800317	Harrison	South Harrison Park and Pool
1800362	1800362	Harrison	Harrison-Crawford State Forest
1800363	1800363L	Harrison	Harrison-Crawford State Forest
1800405	1800405M	Harrison	Harrison-Crawford State Forest
1800413	1800413D	Harrison	Adventure Trail Harrison-Crawford State Forest
1800559	1800559	Harrison	O'Bannon Woods SP

Please note, some of the property names are cut off on the ends due to character limits
 Also, park names may have changed and is not reflected on the list.

*Various - this may include multiple sites in multiple counties and should always be included in your search