

Indiana Department of Transportation

County Washington Route SR 60 over South Fork Blue River Des. No. 1700173

Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. The level of public involvement should be commensurate with the proposed action.

Does the project have a historic bridge processed under the Historic Bridges PA*? Yes No

If No, then: Opportunity for a Public Hearing Required? Yes No

*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Remarks: Notice of Entry letters were mailed to potentially affected property owners near the project area on March 19, 2015... The project will meet the minimum requirements described in the current Indiana Department of Transportation (INDOT) Public Involvement Manual...

Public Controversy on Environmental Grounds Will the project involve substantial controversy concerning community and/or natural resource impacts? Yes No

Remarks: At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: INDOT INDOT District: Seymour Local Name of the Facility: SR 60 over South Fork Blue River

Funding Source (mark all that apply): Federal X State X Local Other*

*If other is selected, please identify the funding source:

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

The need for this project is due to the deteriorating conditions of the SR 60 bridge over South Fork Blue River. Based on the most recent Bridge Inspection Report, dated July 2, 2019, the bridge is showing signs of deterioration including cracking in the copings, cracking and delamination, and spalls with exposed rebar in a few spots of the sidewalk; minor cracking in the parapet walls; cracking throughout the bituminous pavement; and a 1 ft. by 1 ft. pothole approximately 3 inches deep in the westbound lane near pier #3.

The superstructure exhibits moderate cracking and spalling with exposed rebar at all four corners of the arch abutments and piers; minor cracking in the arches and arch rings and efflorescence in all three spans and cracking, scaling, and spalling in the spandrel walls at piers #2 and #3. The substructure has cracking and scaling with efflorescence on the pier caps and stems and minor scour on the nose of pier #2. There is moderate drift around pier #3 and a small amount on the north side of pier #2. The deck, wearing surface and superstructure are in fair condition with a rating of 5 out of 9 and the substructure is in satisfactory condition with a rating of 6 out of 9. Overall the bridge is in fair to satisfactory condition.

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The purpose of this project is to provide a sufficient structure in order to perpetuate vehicular traffic over South Fork Blue River and remain hydraulically adequate at the project location.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Washington Municipality: New Pekin

Limits of Proposed Work: Project limits along SR 60 will extend up to 85 ft. east and 35 ft. west of the existing edge of pavement and approximately 693 ft. south and 583 ft. north of the center of the existing structure for a total of 1,276 ft. (0.24 mile). This includes incidental construction activities for the phased construction and maintenance of traffic.

Total Work Length: 0.24 Mile(s) Total Work Area: 4.5 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?

Yes ¹	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date: _____	

¹If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

Project Location

INDOT, with funding from the Federal Highway Administration (FHWA), intends to proceed with a bridge project, State Bridge No. 060-88-03069, (NBI 021480) that carries SR 60 over South Fork Blue River. The project is located approximately 0.42 mile west of SR 335 in Pierce Township, Washington County, Indiana (Appendix B, page B-1). Specifically, the project is located in Sections 25 and 30, Township 1 North, Range 4 East as illustrated on the *Palmyra and Salem*, Indiana 7.5-Minute United States Geological Survey topographic quadrangles (Appendix B, page B-2).

Existing Conditions

The bridge is a three-span reinforced concrete arch bridge, built in 1937. The bridge is 193 ft. in length with each span measuring 50 ft. The bridge roadway width curb-to-curb is 28 ft. - 3 inches and the deck out-to-out width is 35 ft. - 1 inch. The bridge is skewed at an angle of 15 degrees to the left of the waterway. The bridge deck was resurfaced in 2007. The structure has spread footings, no piles and is set on rock. The structure is showing signs of deterioration including cracking, exposed rebar, spalling, and efflorescence as described in the Purpose and Need section of this Categorical Exclusion (CE) Level 2 document. The bridge is not load posted and is open to all vehicles. This bridge is not listed on the *Indiana Historic Bridge Inventory Report* (Mead and Hunt 2010) and is not eligible for listing on the National Register of Historic Places.

SR 60 is classified as a Rural Principal Arterial roadway that provides a two-lane cross-section with 12 ft. wide travel lanes bordered by shoulders that are 4 ft.-4 inches wide. The posted speed limit is 45 miles per hour (mph) within the project area. An underground telephone line is located along the east side of SR 60 and a buried water line is located along the west side of SR 60. Buried fiber optic and stormwater lines are located in the northeast quadrant of the project area as well as a sanitary sewer line in the southwest quadrant. One roadside ditch (RSD) is located in the northeast quadrant and one RSD is located in the southeast quadrant. Land use on the north end of the bridge crossing consists of residential, with some commercial retail. The southern end of the bridge crossing is more rural in nature with land use being predominantly agricultural in nature (Appendix B, pages B-3 to B-18).

Preferred Alternative

The preferred alternative is to replace the existing structure with a three-span (58 ft.-75 ft.-58 ft.) continuous composite pre-stressed concrete bulb-tee beam bridge with a total length of 192.6 ft., a clear roadway width of 30 ft., and skew of 15 degrees to the left. The bridge cross-section will provide a 12 ft. wide travel lane bordered by a 3 ft. shoulder in each direction. Guardrails and concrete bridge rail transitions will be installed along the approach roadway. No utilities will be impacted.

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The project will require approximately 0.80 acre of new permanent right-of-way, and 0.30 acre of temporary right-of-way for construction access. The project will result in approximately 135 linear ft. of stream impacts for the placement of scour protection and construction of substrate. Design plans are provided in Appendix B, pages B-19 to B-25. The contract letting is currently scheduled for December 2021. Construction is anticipated to begin in early 2022 and last approximately one year.

Maintenance of Traffic

Traffic will be maintained on SR 60 for the duration of construction and a detour will not be required. The maintenance of traffic (MOT) plan for this project will require phased construction with a temporary traffic signal. Additional details are provided in the MOT section of this document.

Logical Termini and Independent Utility

The project termini are logical because they encompass the minimum amount of roadwork and disturbance to incorporate the new structure into the existing conditions. The project has independent utility because the improvements will provide a benefit to the community even if no additional transportation improvements are planned for the project area.

The preferred alternative will meet the stated purpose and need of the project by providing a sufficient structure to perpetuate vehicular traffic on SR 60 over South Fork Blue River. Specifically, the preferred alternative is expected to provide a structure rating of 9 out of 9, hydraulically adequate, and a service life of approximately 75 years before the need for any required maintenance.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

Alternative 1: Three-Span Steel Beam Bridge

Alternative 1 would consist of installation of a three-span steel beam bridge that would be 182 ft. in length by 36 ft. in width. Weathering steel is assumed for this alternative to reduce the life cycle maintenance costs compared with painted steel. Alternative 1 would meet the stated purpose and need of the project by addressing the deteriorated condition of the existing bridge such that it would perpetuate vehicular traffic at the crossing of South Fork Blue River; however, the estimated construction cost of Alternative 1 is \$2,410,000.00 which is approximately 17% more expensive than the preferred alternative. Although this is a feasible alternative, due to the increased cost, it was decided that this alternative was not a prudent use of funds and was discarded from further consideration.

Alternative 2: Do-Nothing

The do-nothing alternative would allow the existing structure to remain in its current deteriorating state. Although no additional cost would be incurred by this alternate, the structure would continue to deteriorate and may eventually be posted with a limited load limit which would restrict larger vehicles such as semitrucks, fire trucks and school buses. The do-nothing alternative is feasible but, it does not meet the purpose and need of the project. Furthermore, it would not be prudent to allow the structure to continue to deteriorate; therefore, this alternative was discarded from further consideration.

The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):

- It would not correct existing capacity deficiencies;
- It would not correct existing safety hazards;
- It would not correct the existing roadway geometric deficiencies;
- It would not correct existing deteriorated conditions and maintenance problems; or
- It would result in serious impacts to the motoring public and general welfare of the economy.
- Other (Describe)

ROADWAY CHARACTER:

Functional Classification:	<u>SR 60 - Rural Principal Arterial</u>			
Current ADT:	<u>7,408</u>	VPD (2022)	Design Year ADT:	<u>7,492</u> VPD (2042)
Design Hour Volume (DHV):	<u>836</u>	Truck Percentage (%)	<u>7.9</u>	
Designed Speed (mph):	<u>60</u>	Legal Speed (mph):	<u>45</u>	

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	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	12 ft. travel lanes		12 ft. travel lanes	
Pavement Width:	28 – 33.8	ft.	30	ft.
Shoulder Width:	2 – 4.4	ft.	3	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): #060-88-03069/NBI #021480 Sufficiency Rating: 59.2, Bridge Inspection Report 7/2/2019
 (Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	Concrete Arch		Concrete Bulb-Tee Beam	
Number of Spans:	3		3	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	28.3	ft.	30	ft.
Outside to Outside Width:	35.1	ft.	35	ft.
Shoulder Width:	2	ft.	4	ft.
Length of Channel Work:			135	ft.

Describe bridges and structures; provide specific location information for small structures.

Remarks: Bridge No. 060-88-03069 is a three-span reinforced concrete arch bridge built in 1937. Each span is 50 ft., and the bridge provides a clear roadway width of 28 ft., with a skew of 15 degrees to the left over the waterway. No other bridges or small structures are included with this project.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Remarks: Traffic will be maintained on SR 60 for the duration of construction, and a detour will not be required. Traffic will be maintained by diverting both northbound and southbound traffic onto half of the structure, while construction takes place on the other half. A temporary traffic signal will be required at each end of the bridge to control directional access for each direction of travel. Access will likely be restricted to SR 60 from John Street, Grove Street, and Poplar Street. The entrance to Sunoco from SR 60 will likely be closed during construction; however, the entrance from John Street will be maintained. The MOT design sheets are provided in Appendix B, pages B-21 to B-22.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$250,000.00 (2018) Right-of-Way: \$85,000.00 (2021) Construction: \$ 3,684,689.00 (2022)
 Anticipated Start Date of Construction: January 2022 – December 2022 This Des is covered in a bundled project.

Date project incorporated into STIP 2018-2021 State Transportation Improvement Program (STIP); Amendment #18-02; July 3, 2017 and 2020-2024 STIP; July 2, 2019 (Appendix H, pages H-1 to H-3)

Is the project in an MPO Area? **Yes** **No**
 If yes, Name of MPO _____
 Location of Project in TIP _____
 Date of incorporation by reference into the STIP _____

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.00	0.03
Commercial	0.05	0.27
Agricultural	0.61	0.00
Forest	0.14	0.00
Wetlands	0.00	0.00
Other:	0.00	0.00
TOTAL	0.80	0.30

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks: The project requires approximately 0.80 acre of permanent right-of-way (ROW) of which 0.05 acre consists of commercial land, 0.61 acre of agricultural land, and 0.14 acre of wooded riparian land adjacent to the stream crossing. The project also requires approximately 0.30 acre of temporary ROW for construction access, equipment staging, and regrading upon project completion. The temporary ROW will consist of 0.03 acre of residential land and 0.27 acre of commercial land.

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In addition, there is no legally recorded right-of-way on file with the Washington County Recorder's Office for a portion of the project area. Therefore, it will be necessary for INDOT to re-acquire and properly record the additional permanent right-of-way necessary to complete this project. Approximately 0.06 acre of residential land, 0.21 acre of commercial land, 0.31 acre of forested land, and 0.72 acre of agricultural land will be re-acquired, for a total of 1.30 acres. Please refer to Appendix B, page B-24.

The existing ROW is typically edge of pavement to 12 ft. east of SR 60 and edge of pavement to 36 ft. west of SR 60. The maximum proposed ROW will extend approximately 60 ft. to the east and 24 ft. to the west from the edge of existing pavement (Appendix B, page B-24).

If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A – ECOLOGICAL RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Streams, Rivers, Watercourses & Jurisdictional Ditches	X	X	
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			

Remarks:

Based on a desktop review, a site visit on August 7, 2019 by Metric Environmental, the 2015 aerial map of the project area (Appendix B, page B-3), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page E-8), there are 22 streams, rivers, watercourses, or jurisdictional ditches located within the 0.5 mile search radius. There is one river present within the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved on November 12, 2019 by INDOT Ecology and Waterway Permitting Office (Appendix F, page F-29). Please refer to Appendix F, pages F-1 to F-28 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one stream, South Fork Blue River, is present within the project limits. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

South Fork Blue River intersects the project area (Appendix F, page F-11). South Fork Blue River flows southwest into the Blue River, a Section 10 Traditional Navigable Water (TNW). Therefore, South Fork Blue River should be considered a jurisdictional Water of the U.S. South Fork Blue River is associated with a solid blue line on the USGS topographic map, indicating it is perennial. South Fork Blue River is classified by the National Wetland Inventory (NWI) as a Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBH) wetland. The Ordinary High Water Mark (OHWM) was an average of 42 ft. wide and 1 ft. deep within the project study limits. The stream substrate consisted of boulder slabs, cobble, gravel, and silt. Overhanging vegetation and undercut banks were the in-stream cover present. No sinuosity was observed, and water velocity was moderate. Aquatic organisms, fish and frogs, were found in the stream. According to USGS *Indiana StreamStats*, the drainage area upstream of South Fork Blue River is 41.97 square miles. Based on qualitative analysis, South Fork Blue River is an average quality resource.

This project will install approximately 330 tons of riprap over 570 square yards of geotextiles around the north and south abutments of the new bridge for scour protection. Approximately 135 linear ft. of stream will be impacted by the placement of the erosion control measures (Appendix B, pages B-24 to B-26). No stream mitigation will be required as the impacts are less than 300 linear ft. and 0.10 acre.

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Two roadside ditches (RSD) were identified within the project study limits (Appendix F, page F-11). RSD 1 is located in the northeast quadrant and RSD 2 is located in the southeast quadrant. These features did have cut channels as they got closer to South Fork Blue River, possibly due to the field and road runoff; however, in areas where there was no debris accumulation, there was predominantly upland vegetation present within the ditch. No OHWM was observed in either of these features, so they are likely non-jurisdictional.

Early coordination letters were sent to Indiana Department of Natural Resources, Division of Fish & Wildlife (INDR-DFW), U.S. Army Corps of Engineers (USACE), and Indiana Department of Environmental Management (IDEM) on September 6, 2019 (Appendix C, pages C-1 to C-3). The USACE did not respond to the early coordination letter. IDNR-DFW stated this proposal will require the formal approval for construction in a floodway pursuant to the Flood Control Act, IC 14-28-1, unless it qualifies for a bridge exemption. This project is located within an incorporated area; therefore, the bridge exemption does not apply. A construction in a floodway permit will be required. The IDNR-DFW also responded with recommendations to avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and compensate for impacts including bank stabilization, minimizing the use of riprap in the stream and methods for riprap placement, minimizing in-channel disturbance, and avoiding work in the waterway from April 1 through June 30 (Appendix C, pages C-4 to C-6). IDEM's automatic response letter, dated September 9, 2019, includes recommendations to obtain the appropriate USACE 404 and IDEM 401 permits and to avoid impacts to water resources to the fullest extent (Appendix C, pages C-7 to C-13). All applicable IDNR-DFW recommendations are included in the Environmental Commitments section of this CE document.

Other Surface Waters

Reservoirs
 Lakes
 Farm Ponds
 Detention Basins
 Storm Water Management Facilities
 Other: _____

	Presence	Impacts	
		Yes	No
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detention Basins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: Based on a desktop review, a site visit on August 7, 2019 by Metric Environmental the 2015 aerial map of the project area (Appendix B, page B-3), and the water resources map in the RFI report (Appendix E, page E-8), there are four lakes located within the 0.5 mile search radius. There are no other surface waters present within or adjacent to the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved on November 12, 2019 by INDOT Ecology and Waterway Permitting Office (Appendix F, page F-29). Please refer to Appendix F, pages F-1 to F-28 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are no other surface waters present within the project limits. The USACE makes all final determinations regarding jurisdiction.

IDNR-DFW responded on October 3, 2019; however, their response did not include recommendations specific to other surface waters (Appendix C, pages C-4 to C-6). IDEM's automatic response letter, dated September 9, 2019, includes a recommendation that impacts to other water resources be avoided to the fullest extent (Appendix C, pages C-7 to C-13).

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Presence **Impacts**

Yes No

Wetlands

Total wetland area: 0 acre(s) Total wetland area impacted: 0 acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
N/A	N/A	N/A	N/A	N/A

Documentation

ES Approval Dates

Wetlands (Mark all that apply)

Wetland Determination	<input checked="" type="checkbox"/>	November 12, 2019
Wetland Delineation	<input type="checkbox"/>	
USACE Isolated Waters Determination	<input type="checkbox"/>	
Mitigation Plan	<input type="checkbox"/>	

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
 - Substantially increased project costs;
 - Unique engineering, traffic, maintenance, or safety problems;
 - Substantial adverse social, economic, or environmental impacts, or
 - The project not meeting the identified needs.
-

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks: Based on a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/Mapper.html>), a site visit on August 7, 2019 by Metric Environmental, the USGS topographic map (Appendix B page B-2), and the RFI report (Appendix E page E-8) eleven (11) wetlands are located within the 0.5 mile search radius. No wetlands are present within or adjacent to the project area, therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved on November 12, 2019 by INDOT Ecology and Waterway Permitting Office (Appendix F, page F-29). Please refer to Appendix F, pages F-1 to F-28 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are no wetlands within the project area. The USACE makes all final determinations regarding jurisdiction.

IDNR-DFW responded on October 3, 2019; however, their response did not include recommendations specific to wetlands (Appendix C, pages C-4 to C-6). IDEM's automatic response letter, dated September 9, 2019, includes recommendations that a consultant check to determine whether the project will abut, or lie within, a wetland area and that wetlands are avoided to the fullest extent (Appendix C, pages C-7 to C-13).

Presence **Impacts**

Yes No

Terrestrial Habitat

Unique or High Quality Habitat

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

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Remarks: Based on a desktop review, a site visit on August 7, 2019 by Metric Environmental, the aerial map of the project area (Appendix B, page B-3), there are fourteen types of terrestrial habitats within the project area. The dominant vegetation located within the project area is silver maple (*Acer saccharinum*) from the tree stratum; eastern black walnut (*Juglans nigra*) and black cherry (*Prunus serotina*) from the sapling/shrub stratum; great ragweed (*Ambrosia trifida*), japanese hops (*Humulus japonicus*), and soybean (*Glycine max*) from the herb stratum.

The project will result in approximately 1.17 acres of tree clearing, 0.50 acre of agriculture land disturbance, and 0.50 acre of grass disturbance to replace the bridge and widen the roadway for maintenance of traffic. Mitigation will not be required.

The IDNR-DFW responded on October 3, 2019 with recommendations to avoid or minimize impacts to terrestrial habitat. Recommendations include 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; revegetating; and minimizing tree clearing. All applicable IDNR-DFW recommendations are included in the Environmental Commitments section of this CE document.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst

	Yes	No
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are karst features located within or adjacent to the footprint of the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, will the project impact any of these karst features?	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks: Based on a desktop review, the project is located inside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page B-2), and the RFI report (Appendix E, page E-8), there are no karst features identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, pages C-14 to C-16). IGS responded that geological hazards include a high liquefaction potential and 1% annual chance flood hazard; mineral resources include moderate potential bedrock resource and low potential sand and gravel resource; and no active or abandoned mineral resources extraction sites are located within 0.5 mile of the project area. Response from IGS has been communicated with the designer on November 7, 2019. No impacts are expected.

	<u>Presence</u>		<u>Impacts</u>	
		Yes	Yes	No
Threatened or Endangered Species				
Within the known range of any federal species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Any critical habitat identified within project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal species found in project area (based upon informal consultation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State species found in project area (based upon consultation with IDNR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is Section 7 formal consultation required for this action?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Remarks: Based on a desktop review and the RFI report (Appendix E, page E-4), completed by Metric Environmental on October 8, 2019, the IDNR Washington County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in (Appendix E, pages E-10 to E-13). The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR-DFW early coordination response letter dated October 3, 2019 (Appendix C, page C-4), the Natural Heritage Program's Database has 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.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-17 to C-22). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and northern long-eared bat.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on December 11, 2019, and based on the responses provided, the project was found to "May Affect/Not Likely to Adversely Affect" the Indiana bat and/or the NLEB. INDOT reviewed and verified the effect finding on December 11, 2019 and requested USFWS's review of the finding (Appendix C, pages C-23 to C-37). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this document.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

SECTION B – OTHER RESOURCES

Drinking Water Resources	Presence	Impacts	
		Yes	No
Wellhead Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Residential Well(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Water Protection Area(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sole Source Aquifer (SSA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?	<input type="checkbox"/>	<input type="checkbox"/>
Is the FHWA/EPA SSA MOU Applicable?	<input type="checkbox"/>	<input type="checkbox"/>
Initial Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>
Detailed Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: The project is located in Washington County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. Therefore, a detailed groundwater assessment is not needed and no impacts are expected.

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on December 20, 2019 by Metric Environmental. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

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The Indiana Department of Natural Resources Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on September 25, 2019 by Metric Environmental. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by Metric Environmental on August 16, 2019, and the RFI report; this project is not located in an Urban Area Boundary location. No impacts are expected.

Based on a desktop review, a site visit on August 7, 2019 by Metric Environmental, the 2015 aerial map of the project area (Appendix B, page B-3), this project is located where there is a public water system. The public water system will not be affected because this project does not include excavation to repair or replace the public water system. An early coordination letter was sent on July 11, 2019 to the New Pekin Municipal Utilities (Appendix C, pages C-38 to C-39). No response was received.

Flood Plains	Presence	Impacts	
		Yes	No
Longitudinal Encroachment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project located within a regulated floodplain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks: Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (<http://dnrmmaps.dnr.in.gov/appsphp/fdms/>) by Metric Environmental on September 25, 2019 and the RFI report; this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page F-10). An early coordination letter was sent on March 4, 2020, to the local Floodplain Administrator. On March 6, 2020, the Floodplain Administrator stated in a phone conversation with a staff member from Metric Environmental that he has no comments regarding this project.

This project qualifies as a Category 4 per the current INDOT CE Manual, which includes projects involving replacement of existing drainage structures on essentially the same alignment. Category 4 states "no homes are located within the base floodplain within 1,000 ft. upstream and twelve homes are located within the base floodplain within 1,000 ft. downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans."

Farmland	Presence	Impacts	
		Yes	No
Agricultural Lands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Points (from Section VII of CPA-106/AD-1006* <i>*If 160 or greater, see CE Manual for guidance.</i>)	<u>92</u>		

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

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Remarks: Based on a desktop review, a site visit on August 7, 2019 by Metric Environmental, the 2015 aerial map of the project area (Appendix B, page B-3), the project will convert 0.50 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on September 6, 2019, to the Natural Resources Conservation Services (NRCS). On December 20, 2019 Metric sent a follow-up e-mail to NRCS requesting their response to the early coordination letter sent to them on September 6, 2019. Coordination with NRCS resulted in a score of 92 on the NRCS-CPA-106 Form (Appendix C, page C-41). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

Since design has progressed, 1.10 acres of farmland will not be impacted during this project as was defined on the NRCS-CPA-106 Form. The impact to farm land has been reduced to approximately 0.50 acre for maintenance of traffic.

SECTION C – CULTURAL RESOURCES

	<u>Category</u>	<u>Type</u>	<u>INDOT Approval Dates</u>	<u>N/A</u>
Minor Projects PA Clearance	B	12	September 25, 2019	

Results of Research Eligible and/or Listed Resource Present

Archaeology		
NRHP Buildings/Site(s)		
NRHP District(s)		
NRHP Bridge(s)		

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

Documentation Prepared

Documentation (mark all that apply)

		<u>ES/FHWA Approval Date(s)</u>	<u>SHPO Approval Date(s)</u>
Historic Properties Short Report			
Historic Property Report			
Archaeological Records Check/ Review			
Archaeological Phase Ia Survey Report	X	September 25, 2019	
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination			
800.11 Documentation			

Memorandum of Agreement (MOA) **MOA Signature Dates** (List all signatories)

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Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks: On September 25, 2019 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category A, Type 9 and Category B, Type 12 under the Minor Projects Programmatic Agreement, (Appendix D, pages D-1 to D-4). Category A-9 includes installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils. Category B-12 type projects includes the replacement, widening, or raising the elevation of the superstructure on existing bridges, and bridge replacement projects (when both the superstructure and substructure are removed).

An Archaeological Phase 1a short report was prepared by Metric Environmental personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, dated September 6, 2019. The records check identified no previously recorded sites within or adjacent to the project area but determined that a portion of the current project area was previously examined. To account for any future design changes, an area larger than the anticipated project construction footprint was surveyed. Approximately 6.2 acres of land was examined through visual walkover survey, 5m interval pedestrian transects, one shovel test probe, and five soil cores. The northern half of the project area was found to contain either disturbed or eroded soils. The agricultural fields in the southern half were investigated through close interval pedestrian transects. No archaeological sites were identified, and no further work was recommended. No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

Section 4(f) Involvement (mark all that apply)

Parks & Other Recreational Land

	<u>Presence</u>	<u>Use</u>	
		Yes	No
Publicly owned park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publicly owned recreation area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (school, state/national forest, bikeway, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Evaluations Prepared

		<u>FHWA Approval date</u>
Programmatic Section 4(f)*	<input type="checkbox"/>	
“De minimis” Impact*	<input type="checkbox"/>	
Individual Section 4(f)	<input type="checkbox"/>	<input type="text"/>

Wildlife & Waterfowl Refuges

	<u>Presence</u>	<u>Use</u>	
		Yes	No
National Wildlife Refuge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National Natural Landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Wildlife Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Nature Preserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Evaluations Prepared

		<u>FHWA Approval date</u>
Programmatic Section 4(f)*	<input type="checkbox"/>	
“De minimis” Impact*	<input type="checkbox"/>	
Individual Section 4(f)	<input type="checkbox"/>	<input type="text"/>

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Historic Properties	<u>Presence</u>	<u>Use</u>	
Sites eligible and/or listed on the NRHP	<input type="checkbox"/>	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>Evaluations</u>		
	<u>Prepared</u>	<u>FHWA</u>	
Programmatic Section 4(f)*	<input type="checkbox"/>	<u>Approval date</u>	
“De minimis” Impact*	<input type="checkbox"/>		
Individual Section 4(f)	<input type="checkbox"/>	<input type="text"/>	

*FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, “de minimis” and Individual Section 4(f) evaluations please refer to the “Procedural Manual for the Preparation of Environmental Studies”. Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks: Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife / waterfowl refuges, and NRHP eligible or listed historic properties. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a site visit on August 7, 2019 by Metric Environmental, the 2015 aerial map of the project area (Appendix B, page B-3), and the Red Flag Investigation (RFI) report (Appendix E, page E-7) there is one 4(f) resource located within the 0.5 mile search radius. There are no Section 4(f) resources within or adjacent to the project area. Therefore, no impact to any resources afforded protection under Section 4(f) is expected.

Section 6(f) Involvement	<u>Presence</u>	<u>Use</u>	
Section 6(f) Property	<input type="checkbox"/>	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks: The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use. A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) website at <https://www.lwcfcoalition.com/tools> revealed a total of three properties in Washington County (Appendix I, page I-1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to any resources encumbered by 6(f) funds as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project	Yes	No
Is the project in an air quality non-attainment or maintenance area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES, then:		
Is the project in the most current MPO TIP?	<input type="checkbox"/>	<input type="checkbox"/>
Is the project exempt from conformity?	<input type="checkbox"/>	<input type="checkbox"/>
If the project is NOT exempt from conformity, then:		
Is the project in the Transportation Plan (TP)?	<input type="checkbox"/>	<input type="checkbox"/>
Is a hot spot analysis required (CO/PM)?	<input type="checkbox"/>	<input type="checkbox"/>

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Level of MSAT Analysis required?

Level 1a Level 1b Level 2 Level 3 Level 4 Level 5

Remarks: This project is included in the Fiscal Year (FY) 2018-2021 and 2020-2024 Statewide Transportation Improvement Program (STIP) (Appendix H, pages H-1 to H-3).

This project is located in Washington County, which is currently in attainment for all criteria pollutants according to http://www.in.gov/idem/airquality/files/nonattainment_county_list.pdf. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

SECTION F - NOISE

Noise	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	No	Yes/ Date
ES Review of Noise Analysis	<input type="checkbox"/>	<input type="checkbox"/>

Remarks: This project is a Type III project. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION G – COMMUNITY IMPACTS

	Yes	No
Regional, Community & Neighborhood Factors		
Will the proposed action comply with the local/regional development patterns for the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed action result in substantial impacts to community cohesion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the proposed action result in substantial impacts to local tax base or property values?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will construction activities impact community events (festivals, fairs, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the community have an approved transition plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If No, are steps being made to advance the community's transition plan?	<input type="checkbox"/>	<input type="checkbox"/>
Does the project comply with the transition plan? (explain in the remarks box)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks: There will be no permanent adverse impact to local mobility, access, pedestrian or motorist safety or emergency services as a result of the project. However, during construction, there will be temporary impacts due to the alternating lanes of travel. There will be no permanent adverse alterations to the movement of traffic, land use or the streetscape. No permanent impacts to the community cohesion, local tax base, property values or community events were identified as a result from the project.

Local access will be maintained during construction. In accordance with the current INDOT Design Manual and Standard Specifications, the contractor will be responsible for contacting school districts and emergency services at least two weeks prior to the start of construction. Notification and all signs, lights and barricades utilized for traffic maintenance will be in accordance with current INDOT Standard Specifications and the Manual on Uniform Traffic Control Devices (MUTCD).

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The Indiana Association of Fairs website (www.indianafestivals.org) was reviewed by Metric Environmental on December 23, 2019. There is one event scheduled July 3 and 4, 2020 at the Pekin Park, located at 340 Park Street, New Pekin, IN 47165. This project will not impact community events, such as festivals or fairs due to the project area will remain open during construction activities.

On September 6, 2019, Metric Environmental sent an early coordination packet to the U.S. Department of Housing and Urban Development (HUD) requesting comments from their area of expertise regarding any possible environmental effects associated with this project (Appendix C, pages C-1 to C-3). No response was received.

The Town of New Pekin maintains an American with Disabilities Act (ADA) Transition Plan, adopted in December 2019. There are no existing sidewalks or other pedestrian walkways which will be destroyed or amended within the vicinity of this project, and there are no sidewalks or other pedestrian walkways that will be constructed as part of this project. This project will not contribute to any barriers to ADA accessibility.

Indirect and Cumulative Impacts Yes No
 Will the proposed action result in substantial indirect or cumulative impacts?

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment, which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

No indirect or cumulative impacts have been identified as a result of this project. There have been no significant effects identified which are caused by the action and are later in time or farther removed in distance. In addition, there have been no significant effects identified which may induce changes in the patterns of land use, population density or growth rate, or related effects on air and water or other natural systems, including ecosystems. No significant impacts on the environment have been identified which will result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. This project will improve the road and bridge conditions. None of the resource agencies identified or made known any substantial negative impacts.

Public Facilities & Services Yes No
 Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

Remarks: Based on a desktop review, a site visit on August 7, 2019 by Metric Environmental, the 2015 aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, page E-7) there are five public facilities located within the 0.5 mile search radius. There are no public facilities within or adjacent to the project area. Access to all properties will be maintained during construction. Therefore, no impacts are expected.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

Environmental Justice (EJ) (Presidential EO 12898) Yes No
 During the development of the project were EJ issues identified?
 Does the project require an EJ analysis?
 If YES, then:
 Are any EJ populations located within the project area?
 Will the project result in adversely high or disproportionate impacts to EJ populations?

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Remarks:

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 1.89 acres of permanent right-of-way. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Washington County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 9677. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2017 American Community Survey [ACS] 5-year estimates was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on December 23, 2019 by Metric Environmental. The data collected for minority and low-income populations within the AC are summarized in the below table.

	COC – Washington County	AC-1 - Census Tract 9677, Washington County, Indiana)
Percent Minority	3.09%	4.03%
125% of COC	3.86%	AC < 125% COC
EJ Population of Concern		Yes
Percent Low-Income	13.26%	12.57%
125% of COC	16.58%	AC < 125% COC
EJ Population of Concern		No

*Refer to the INDOT EJ guidance for calculating percentages

AC-1, Census Tract 9677 has a percent minority of 4.03% which is below 50% and is above the 125% COC threshold. Therefore, AC-1 is a minority population of EJ concern.

AC-1, Census Tract 9677 has a percent low-income of 12.57% which is below 50% and is below the 125% COC threshold. Therefore, AC-1 does not contain low-income populations of EJ concern.

Conclusion –The drive that is located within the temporary r/w, in the northeast quadrant of the project area, 540 SR 60, will not be impacted by this project. It will remain accessible to the owner/occupant and will also be available for the contractor’s use to access the grass area adjacent west for regrading purposes. If the scope of work occurring on the property located at 540 SR 60 changes, INDOT ESD will be contacted immediately.

INDOT ESD has reviewed the project information along with the EJ Analysis for the above referenced project. The project will require right-of-way, require no relocations, will not disrupt community cohesion or create a physical barrier. The maintenance of traffic for the project will provide minor inconvenience during construction for both EJ and non EJ populations. With the information provided, INDOT ESD does not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low income populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

The census data sheets, map, and calculations can be found in Appendix (I).

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Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
 Is a Business Information Survey (BIS) required?
 Is a Conceptual Stage Relocation Study (CSRS) required?
 Has utility relocation coordination been initiated for this project?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses, or farms will take place as a result of this project.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Documentation

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation
 Phase I Environmental Site Assessment (Phase I ESA)
 Phase II Environmental Site Assessment (Phase II ESA)
 Design/Specifications for Remediation required?

No Yes/ Date

ES Review of Investigations		Yes/ October 8, 2019
------------------------------------	--	----------------------

Include a summary of findings for each investigation.

Remarks: Based on a review of GIS and available public records, an RFI was completed on October 8, 2019 by Metric Environmental (Appendix E, pages E-1 to E-13). Three underground storage tank (UST) sites are located within 0.5 mile of the project area and no sites are located within the project area. No hazmat sites were identified in or within 0.5 mile of the project area that will impact the project. The nearest UST site is abutting the project area. No impacts are expected because the most recent site inspection conducted by IDEM in January 2017, revealed no violations or suspected or reported leaks or overfills of the UST's. Further investigation for hazardous material concerns is not required at this time.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)
 Nationwide Permit (NWP)
 Regional General Permit (RGP)
 Pre-Construction Notification (PCN)
 Other
 Wetland Mitigation required
 Stream Mitigation required

IDEM

Section 401 WQC
 Isolated Wetlands determination
 Rule 5
 Other
 Wetland Mitigation required
 Stream Mitigation required

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IDNR

Construction in a Floodway	X
Navigable Waterway Permit	
Lake Preservation Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the remarks box below)	

Remarks: An IDEM Section 401 RGP and a USACE 404 RGP are anticipated to be required to remove and replace the existing structure and install the riprap. Final decisions regarding the type of permits will be made by USACE and IDEM.

A National Pollutant Discharge Elimination System (NPDES) General Permit for Erosion Control (Rule 5) will be required, as greater than 1 acre of land will be disturbed. Prior to the initiation of construction, it will be the responsibility of the contractor to submit the Notice of Intent to IDEM regarding the intent to operate the proposed construction project in a manner consistent with the rule.

This project will require the formal approval from IDNR Division of Water for construction in a floodway (CIF).

Applicable recommendations provided by IDNR-DFW are included in the Environmental Commitments section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s), and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks: **Firm:**

1. If the scope of work or permanent or temporary right-of-way amounts change, INDOT ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction activity that would block or limit access. (INDOT ESD)
3. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after August 26, 2021, an inspection of the structure by a qualified individual, must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
4. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWAQ/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
5. 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. (USFWS)
6. Lighting AMM 1: Direct lighting away from suitable habitat during the active season. (USFWS)
7. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)

Indiana Department of Transportation

County Washington Route SR 60 over South Fork Blue River Des. No. 1700173

- 8. 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 ft. 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. (USFWS)
- 9. 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) (USFWS)
- 10. Tree Removal AMM 4: Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 mile of roosts, or **documented** foraging habitat any time of year. (USFWS)

For Further Consideration:

- 11. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumphouse. (IDNR-DFW)
- 12. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR-DFW)
- 13. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
- 14. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)
- 15. 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 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR-DFW)
- 16. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR-DFW)
- 17. 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 the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)

Remarks:

Indiana Department of Transportation

County Washington Route SR 60 over South Fork Blue River Des. No. 1700173

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks:

Agency	Coordination Sent	Response Received
U.S. Fish & Wildlife Service	September 6, 2019	None Received
Indiana Department of Natural Resources	September 6, 2019	October 3, 2019
US Department of HUD	September 6, 2019	None Received
National Parks Service	September 6, 2019	None Received
IDEM Proposed Roadway Construction Projects	September 6, 2019	September 9, 2019
Washington County Surveyor	September 6, 2019	None Received
Washington County Highway Department	September 6, 2019	None Received
Washington County Commissioner-District 1	September 6, 2019	None Received
Washington County Commissioner-District 2	September 6, 2019	None Received
Washington County Commissioner-District 3	September 6, 2019	None Received
Washington County Council- District 1	September 6, 2019	None Received
Washington County Council- District 2	September 6, 2019	None Received
Washington County Council- District 3	September 6, 2019	None Received
Washington County Council- District 4	September 6, 2019	None Received
Pierce-Polk Townships Volunteer Fire Department	September 6, 2019	None Received
Natural Resources Conservation Service	September 6, 2019 and December 20, 2019	December 30, 2019
United States Army Corps of Engineers	September 6, 2019	None Received
Indiana Geological Survey	September 6, 2019	Automatic Response
Wellhead Proximity Determinator	September 6, 2019	Automatic Response
Floodway Administrator	March 4, 2020	March 6, 2020 (telephone)

APPENDICES

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- IGS response; September 6, 2019C-14
- USFWS official species list; December 11, 2019C-17
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APPENDIX D: Section 106 of the National Historic Preservation Act

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APPENDIX E: Red Flag and Hazardous Materials

- Red Flag Investigation; Signed by INDOT SAM August 28, 2018E-1

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APPENDIX H: Air Quality

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- LWCF Detailed Listing of Grants Grouped by County, Washington County.....I-1
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APPENDIX A:
INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way³	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	“No Effect”, “Not likely to Adversely Affect” (Without AMMs ⁴ or with AMMs required for all projects ⁵)	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁶
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ⁷
Approval Level	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes	Yes
<ul style="list-style-type: none"> • District Env. Supervisor • Env. Services Division • FHWA 				Yes	Yes

¹Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

²Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³Permanent and/or temporary right-of-way.

⁴AMMs = Avoidance and Mitigation Measures.

⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User's Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

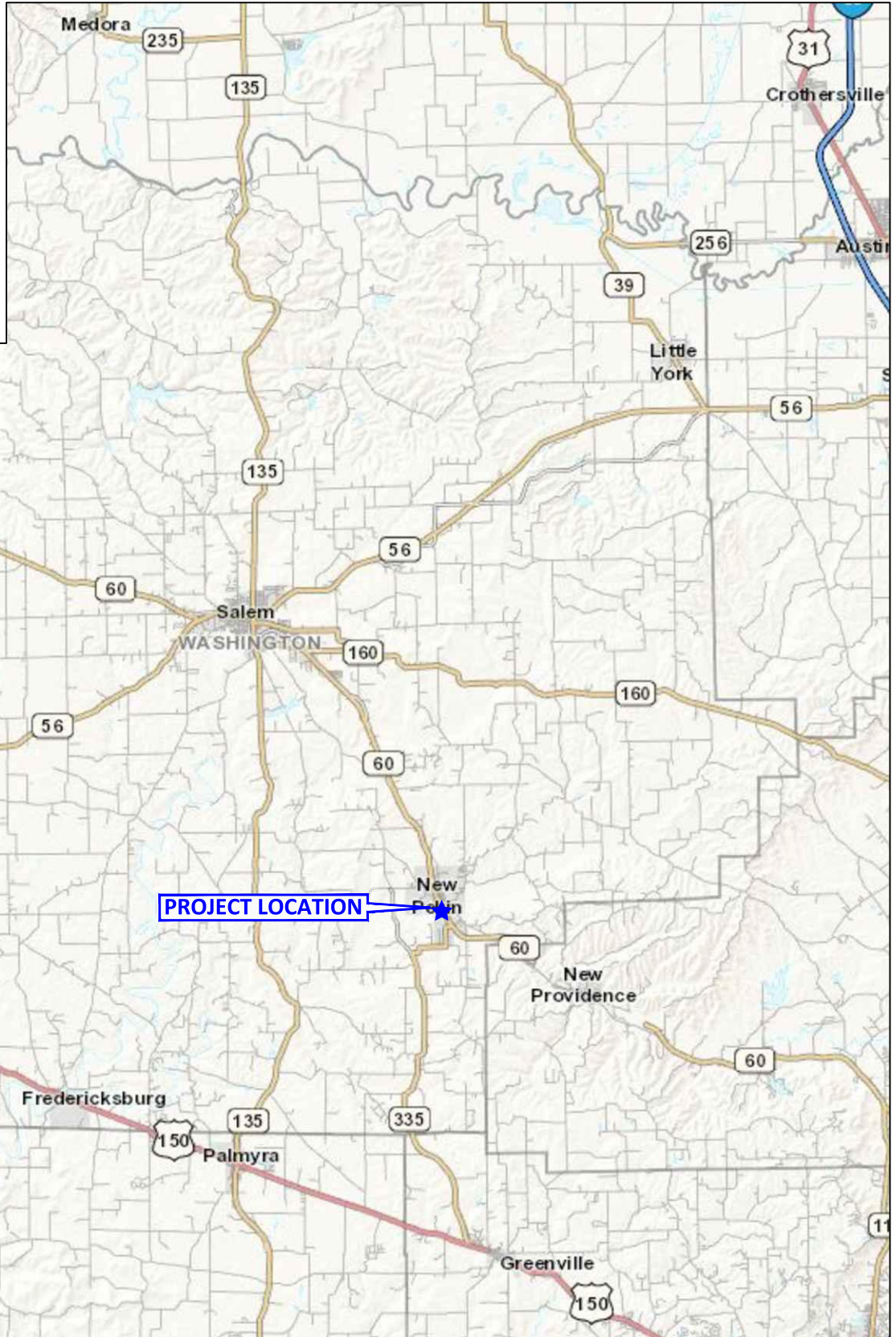
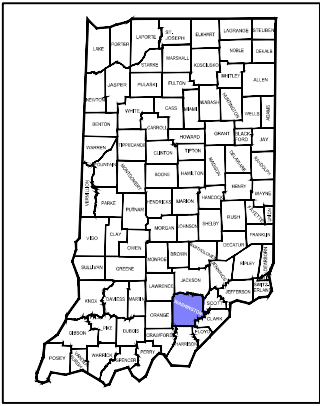
⁶Potential for causing a disproportionately high and adverse impact.

⁷Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

*Substantial public or agency controversy may require a higher-level NEPA document.

APPENDIX B:

Graphics

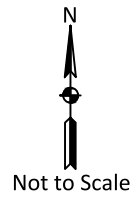


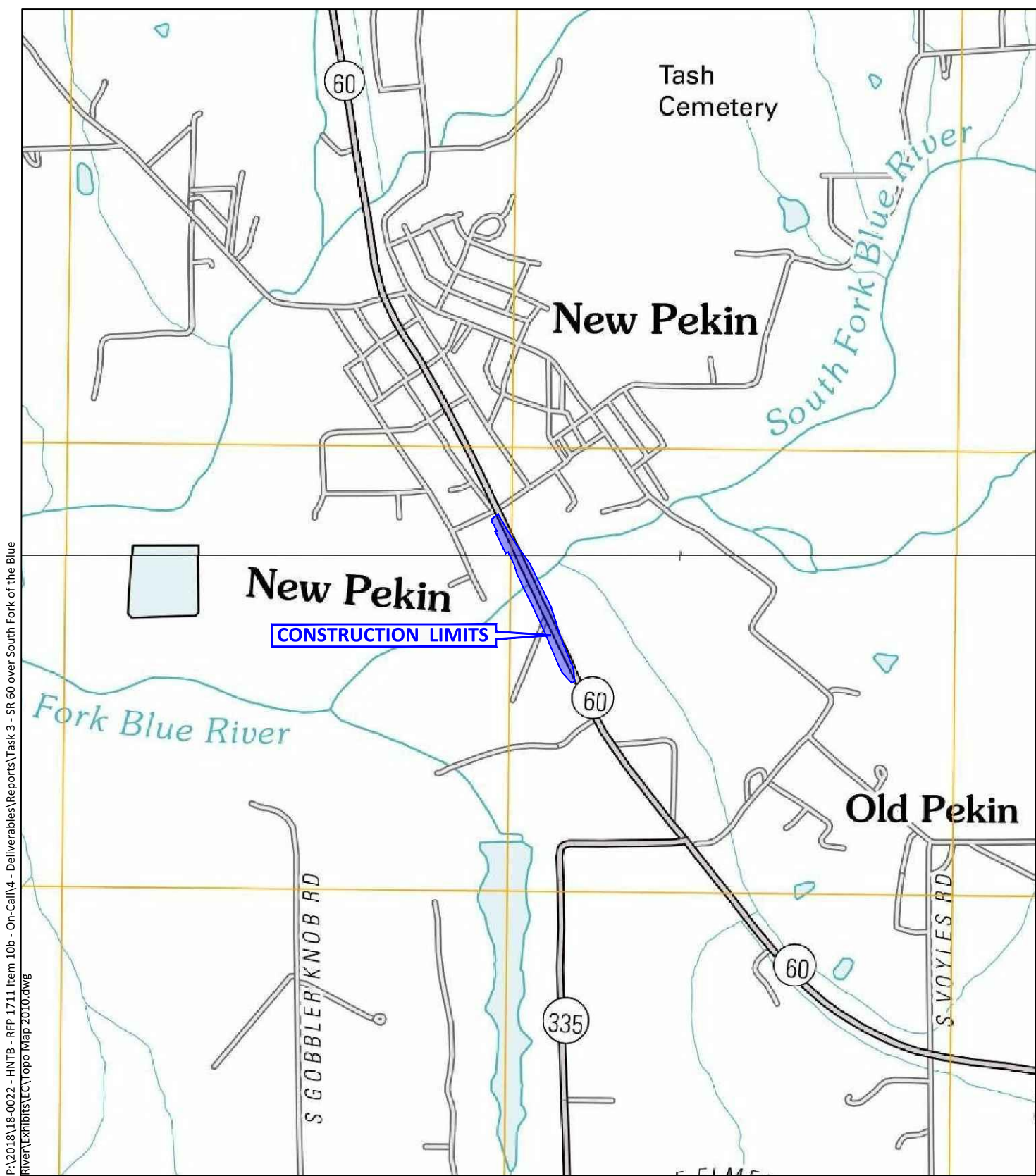
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 Exhibits\Location Map.dwg

Source: <http://maps.indiana.edu/>

Location Map
 Bridge Replacement
 SR 60 over South Fork Blue River,
 Approximately 0.42 mile West of SR 335
 Pierce Township, Washington County, Indiana
 Des. No. 1700173
 Metric Project No. 18-0022-3

All locations approximate



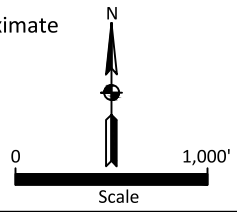


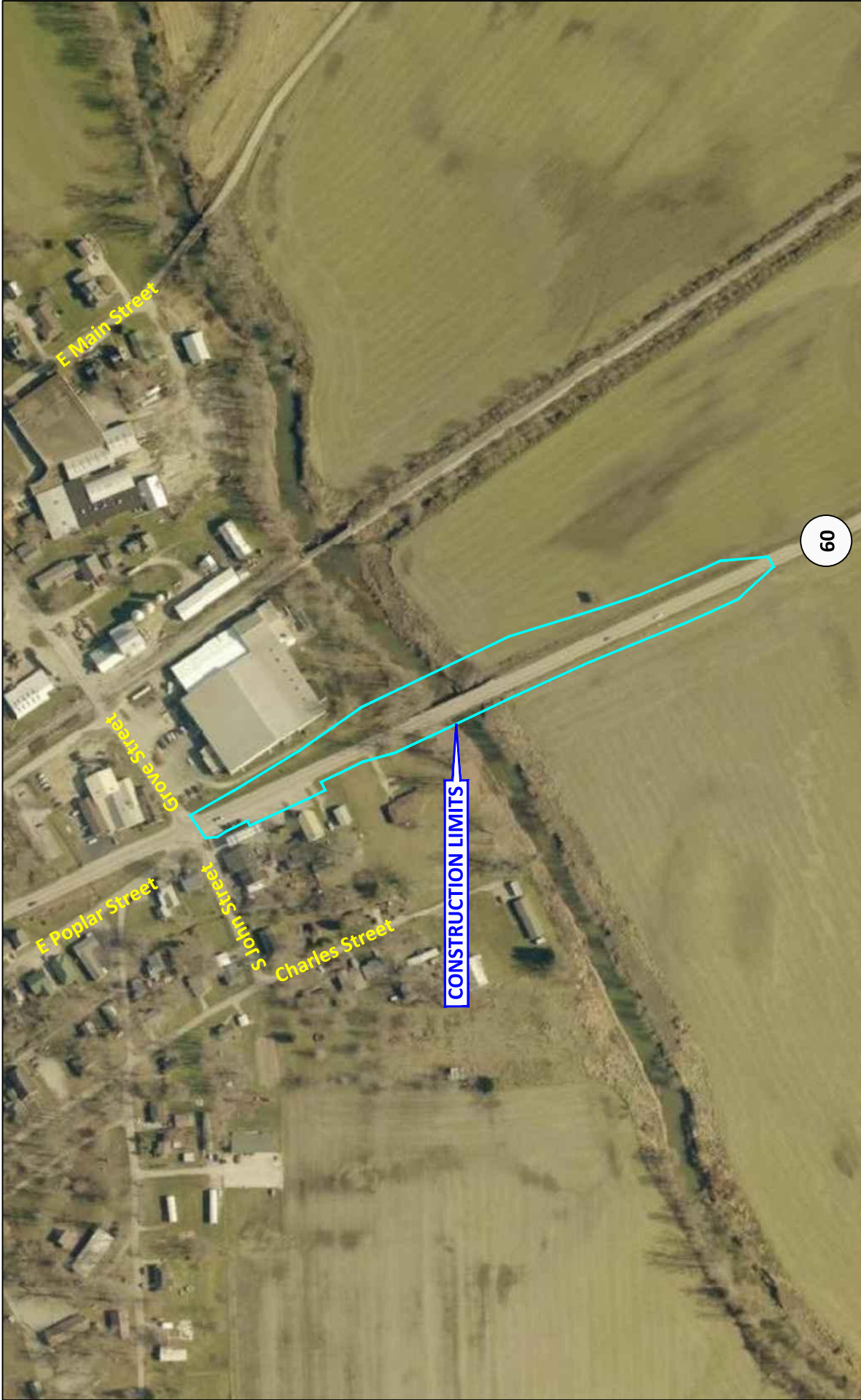
P:\2018\18-0022 - HNTB - RFP 1711 Item 10b - On-Call\4 - Deliverables\Reports\Task 3 - SR 60 over South Fork of the Blue River\Exhibits\EC\Topo Map 2010.dwg

Source: <https://geonames.usgs.gov/apex/f?p=262:1:0>

USGS Topographic Map
 Bridge Replacement
 SR 60 over South Fork Blue River,
 ~Approximately 0.42 mile West of SR 335
 Pierce Township, Washington County, Indiana
 Des. No. 1700173
 Metric Project No. 18-0022-3

Note: All locations are approximate
 Base map:
 2010 Palmyra, IN and
 2010 Salem, IN
 7.5 Minute Quadrangle

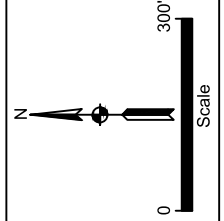


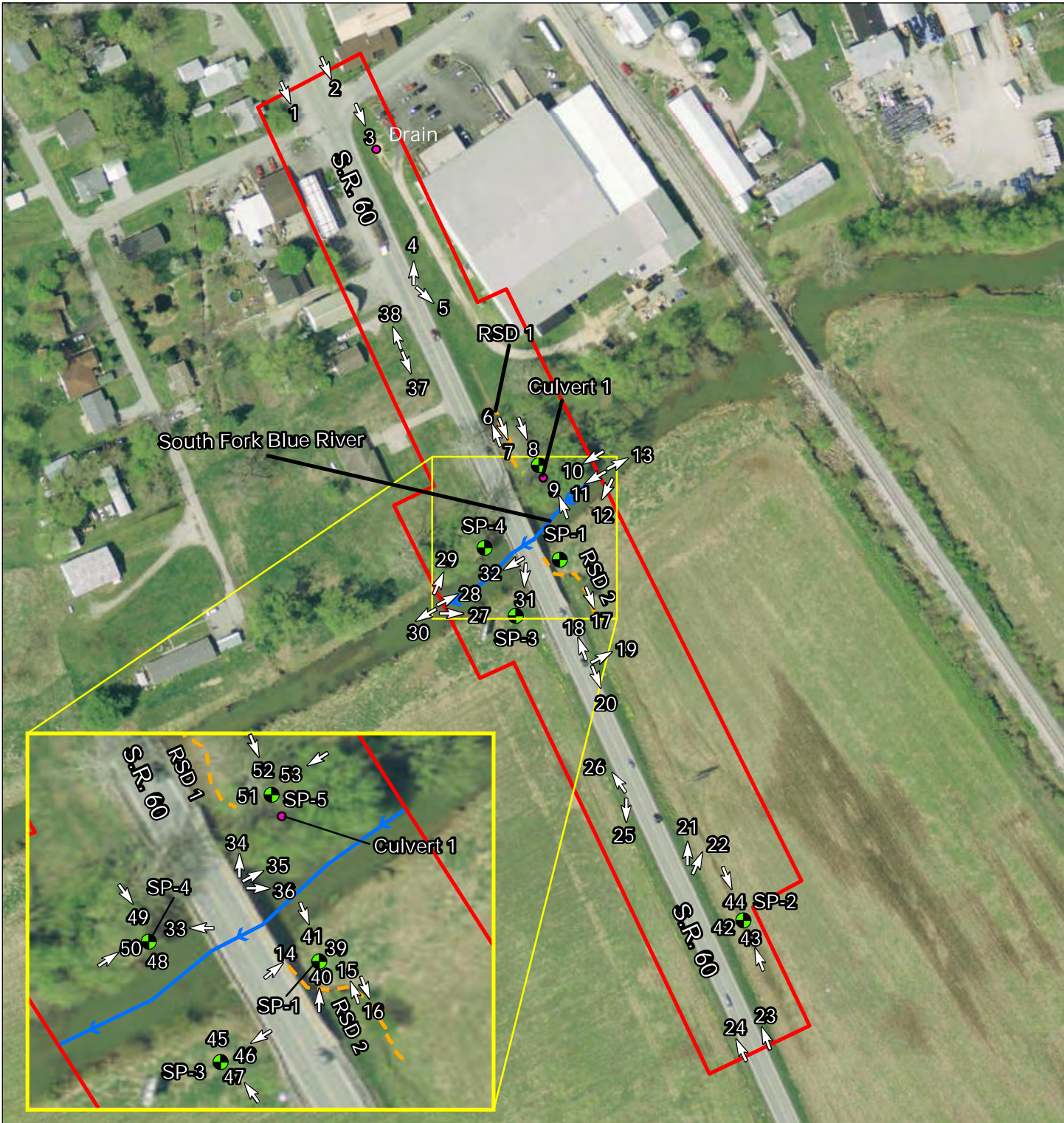


Source: <https://washingtonin.wfhis.com/>

2015 Aerial Photograph
 Bridge Replacement
 SR 60 over South Fork Blue River,
 Approximately 0.42 mile West of SR 335
 Pierce Township, Washington County, Indiana
 Des. No. 1700173
 Metric Project No. 18-0022-3

Note: All locations are approximate

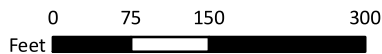




- Project Study Limits (PSL)
- Stream
- Culvert Opening
- Sampling Points (SP)
- Roadside Ditch (RSD)
- Culvert

Photograph Location Map
 SR 60 over South Fork Blue River Bridge Project
 Pierce Township, Washington County, Indiana
 Des. No. 1700173
 Metric Project No. 18-0022-3
 Map Date: 8/5/2019
 Map Author: Zachary Root

All locations approximate
 Source: Indiana Spatial Data Portal (2016)



Exh. 5



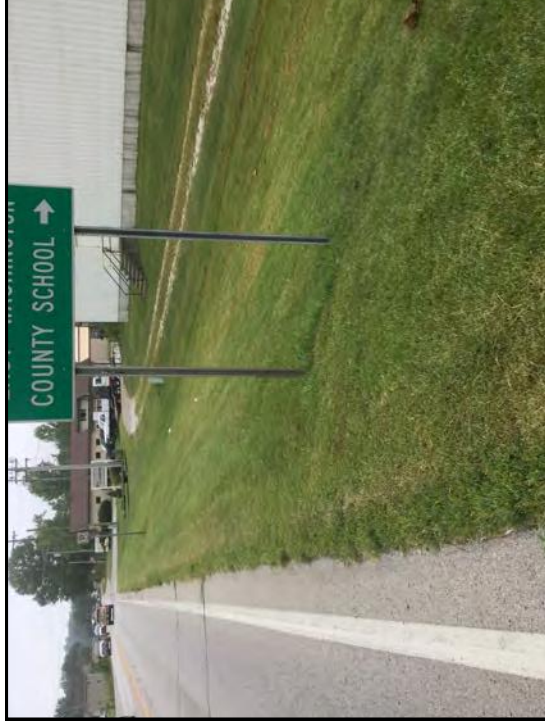
1. View of S.R. 60 Right-of-Way (ROW), from the project study limits (PSL), looking southeast.



2. View of S.R. 60 ROW from the PSL, looking southeast.



3. View of drain, looking southeast.



4. View of S.R. 60 ROW, looking north.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





5. View of S.R. 60 ROW and RSD 1, looking southeast.



6. View of RSD 1, looking northwest.



7. View of RSD 1, looking southeast.



8. View from Culvert 1, looking southeast.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





9. View of Culvert 1, looking northwest.



10. View of northern bank of South Fork of the Blue River, looking southwest.



11. View of South Fork of the Blue River, looking southwest (downstream).



12. View of southern bank South Fork of the Blue River, looking southwest.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





13. View of South Fork of Blue River from the PSL, looking north-east (upstream).



14. View of South Fork of the Blue River and RSD 2, looking north-east.



15. View of RSD 2, looking northwest.



16. View of RSD 2, looking southeast.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173

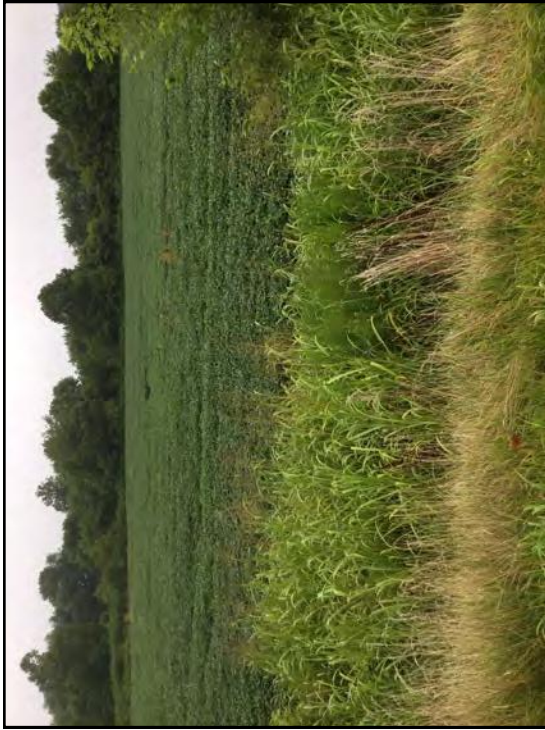




17. View of RSD 2, looking southeast.



18. View of S.R. 60 ROW and RSD 2, looking northwest.



19. View of S.R. 60 ROW, looking northeast.



20. View of S.R. 60 ROW, looking southeast.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





21. View of S.R. 60 ROW, looking north.



22. View of S.R. 60 ROW, looking northeast.



23. View of S.R. 60 ROW from the PSL, looking northwest.



24. View of S.R. 60 ROW from the PSL, looking northwest.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





25. View of S.R. 60 ROW, looking south.



26. View of S.R. 60 ROW, looking northwest.



27. View of the south bank of South Fork Blue River, looking east.



28. View of South Fork of Blue River, looking northeast (upstream).

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





29. View of the north bank of South Fork of Blue River, looking northeast.



30. View of South Fork of Blue River from PSL, looking southwest (downstream).



31. View of the south bank of South Fork of Blue River, looking south.



32. View of South Fork of Blue River, looking southwest (downstream).

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





33. View of the north bank of South Fork of Blue River, looking west.



34. View of the north bank of the South Fork of Blue River, looking north.



35. View of the South Fork of Blue River, looking northeast (upstream).



36. View of the south bank of the South Fork of Blue River, looking east.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





37. View of S.R. 60 ROW, looking southeast.



38. View of S.R. 60 ROW, looking northwest.



39. View of SP-1, soil profile.



40. View of SP-1, looking north.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





41. View of SP-1, looking southeast.



42. View of SP-2, soil profile.



43. View of SP-2, looking northwest.



44. View of SP-2, looking southeast.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





45. View of SP-3, soil profile.



46. View of SP-3, looking southwest.



47. View of SP-3, looking northwest.



48. View of SP-4, soil profile.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





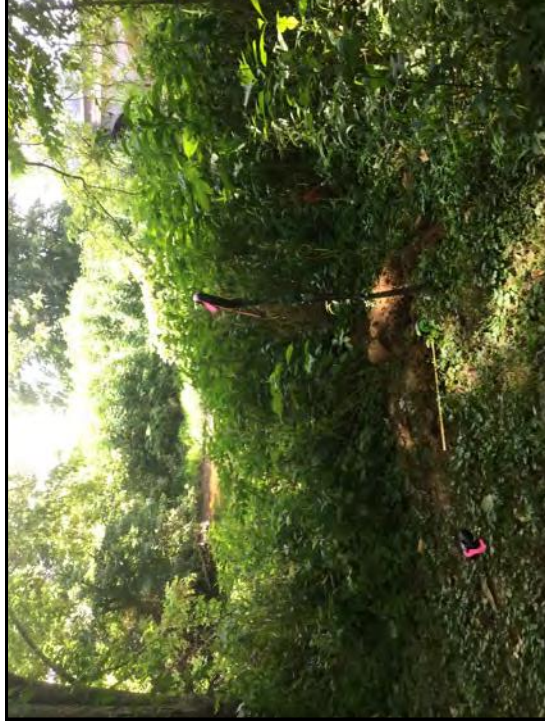
49. View of SP-4, looking southeast.



50. View of SP-4, looking northeast.



51. View of SP-5, soil profile.



52. View of SP-5, looking southeast.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173





53. View of SP-5, looking southwest.

SITE PHOTOGRAPHS—8/7/2019

SR 60 over South Fork Blue River
Bridge Project
Pierce Township, Washington County, Indiana
Des. No. 1700173



PROJECT	DESIGNATION
1700173	1700173
CONTRACT	BRIDGE FILE
B-40453	060-88-10268

STRUCTURE	TYPE	SPAN AND SKEW	OVER
060-88-10268	CONTINUOUS PRESTRESSED CONCRETE 36X49 BULB-TEE BEAM	3 SPANS: 58'-0" , 75'-0" , 58'-0" SKEW: 15°00'00" RT.	SOUTH FORK BLUE RIVER

KIN PROJECT INFORMATION		
DESIGNATION	DESCRIPTION	
1700173	SR 60 OVER SOUTH FORK BLUE RIVER	LEAD DES
1701449	SR 60 OVER MONEYS BRANCH	

EXISTING GROUND (TYP.) -

30'-0" CLEAR ZONE



103+00

102+00

100' TEMPORARY, TRAFFIC BARRIER, ANCHORED, TYPE 2, 6:1 TAPER (TYP.)

BARRELS PLACED @ 45' MAX.

TEMPORARY PORTABLE

W2

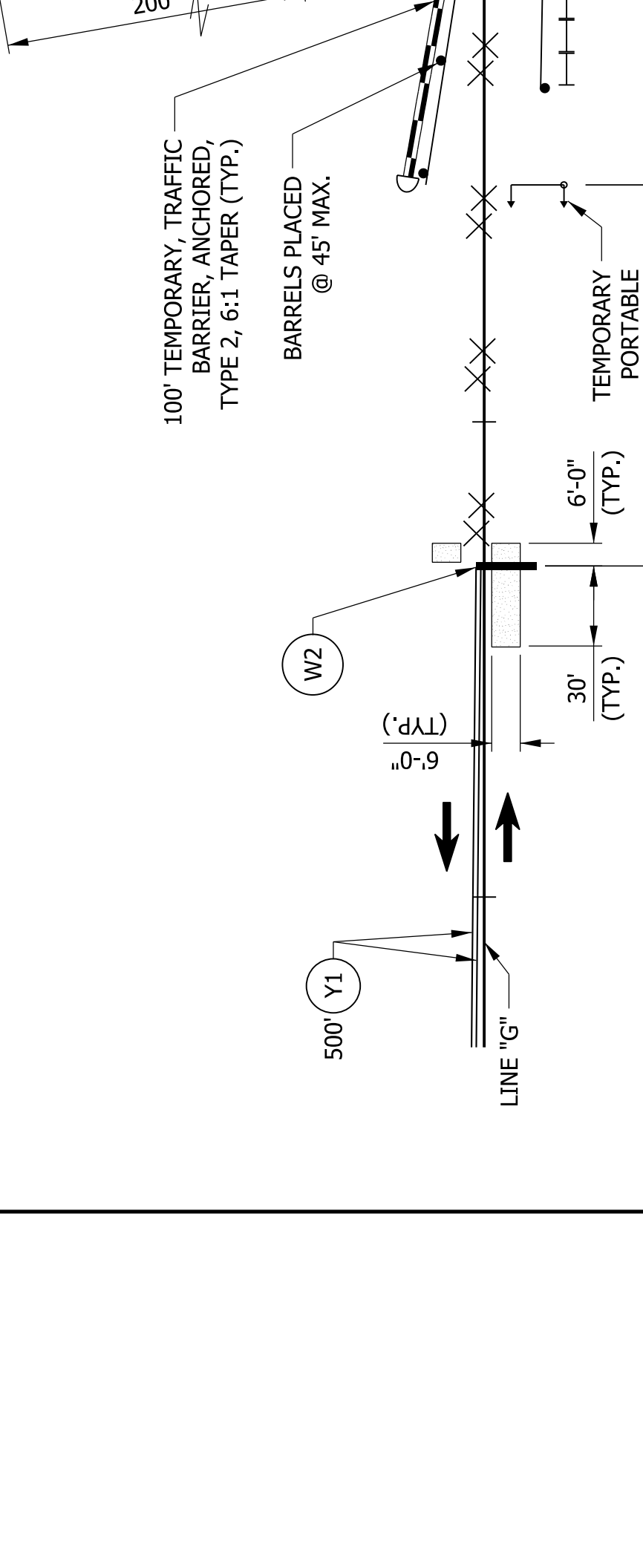
500' Y1

6'-0" (TYP.)

6'-0" (TYP.)

30' (TYP.)

LINE "G"



103+00

102+00

100' TEMPORARY, TRAFFIC BARRIER, ANCHORED, TYPE 2, 6:1 TAPER (TYP.)

BARRELS PLACED @ 45' MAX.

TEMPORARY PORTABLE

W2

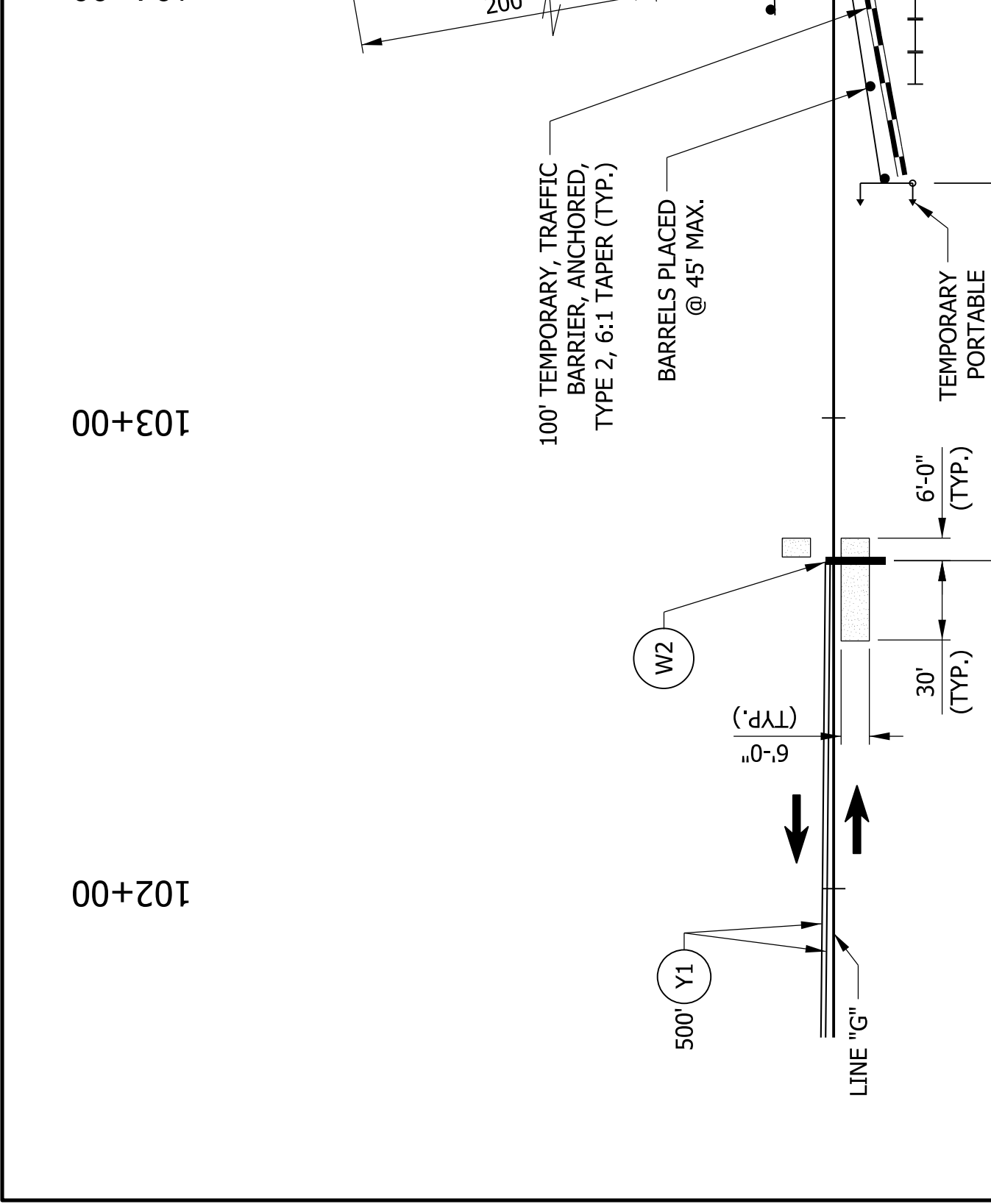
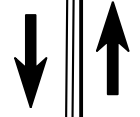
500' Y1

6'-0" (TYP.)

30' (TYP.)

6'-0" (TYP.)

LINE "G"

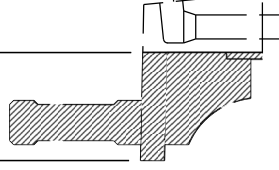


17'-3" WORK ZONE

2'-3"
PHASE I
REMOVAL

15'-

TEMPORARY



MOT - PHAS
(REMOVAL)

SCALE: 1/4" = 1'

34'-6 1/2" WORK ZONE

3'-0 1/2"

CLEAR

15'-

16'-6"

PHASE I
CONSTRUCTION

CL PROPOSED SR 60
& LINE "G"

TEMPORAR

103+00

104+00

105+00

106+00

SECTION 24, T-1-N,
 R-4-E, PIERCE
 TOWNSHIP,
 WASHINGTON COUNTY

VIRGINIA HANSON

CURVE DATA

- P.I. = STA. 104+73.90
- P.C. = STA. 103+95.94
- P.T. = STA. 105+51.81
- R = 2840.00'
- Δ = 3°08'40" LT.
- D = 2°01'03"
- T = 77.95'
- L = 155.87'

BEGIN INCIDENTAL CONSTRUCTION
 STA. 104+75.00 LINE "G"

SECTION LINE

LINE "G"
 S 24°52'27" E



CHARLES

BEGIN C
 STA. 105

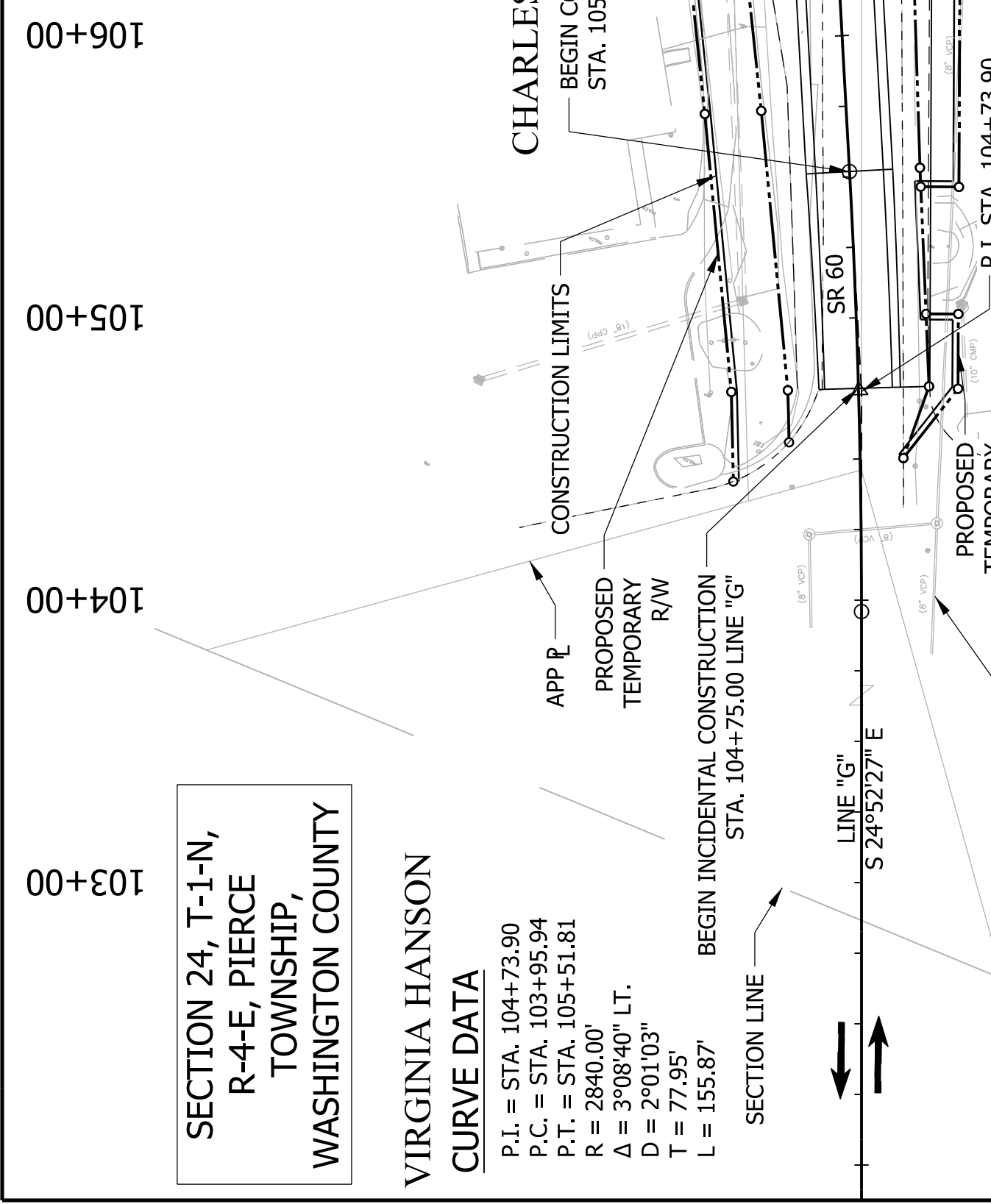
CONSTRUCTION LIMITS

APP R
 PROPOSED
 TEMPORARY
 R/W

SR 60

PROPOSED
 TEMPORARY

DT STA 104+73.00



107+00

108+00

109+00

SECTION 25, T-1-N, R-4-E, PIERCE
TOWNSHIP, WASHINGTON COUNTY

CHARLES R. HANSON

PROPOSED TEMPORARY R/W

CONSTRUCTION LIMITS

EXISTING UNDERGROUND
FIBER-OPTIC

PROPOSED R/W

EXISTING STORMWATER

EXISTING SANITARY SEWER

P.I. STA. 108+02.76

EXIST. APP. R/W

695

695

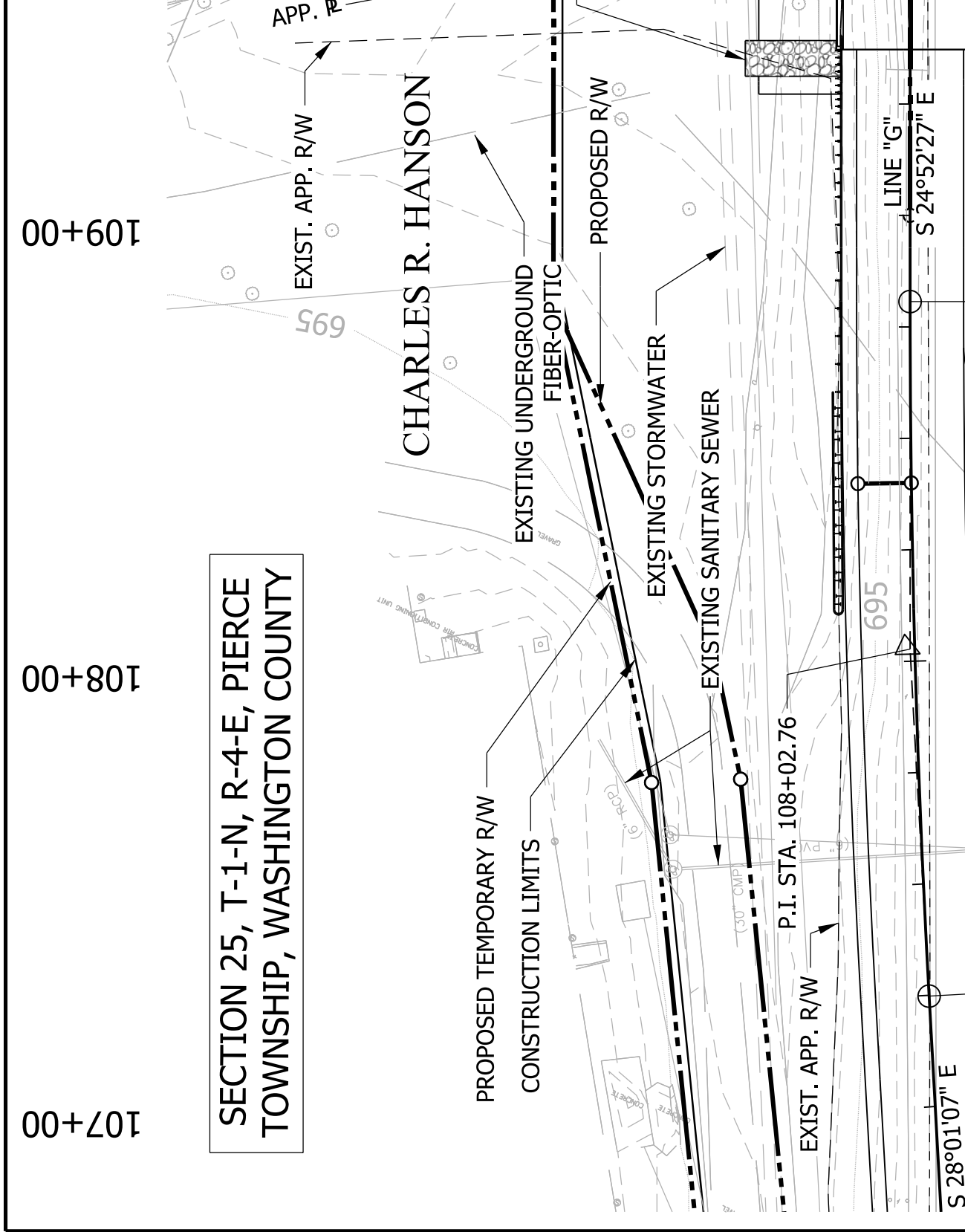
EXIST. APP. R/W

APP. R/W

LINE "G"

S 24°52'27" E

S 28°01'07" E



APPENDIX C: Early Coordination



September 6, 2019

Sample Early Coordination Letter

{See Attached List}

Re: Des. No.: 1700173, Bridge Project over South Fork of Blue River on SR 60, 0.42 Mile West of SR 335, Washington County.

Dear Agency:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed with a project involving the aforementioned bridge project in Washington County. 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 on SR 60, over South Fork of Blue River, approximately 0.42 mile west of SR 335 at reference post (RP) 42+62, in Washington County, Indiana. This section of SR 60 is classified as a Rural Principal Arterial. A typical cross section of SR 60 consists of one 12 feet wide through-lane adjoined by 2 feet wide asphalt shoulder provided in each direction. Two feet wide sidewalk and curb are provided along both sides of the bridge. The posted speed limit on SR 60 is 45 mph.

The existing structure (No. 060-88-03069, NBI No. 021480) is a three-span (50'-0", 50'-0", 50'-0") concrete arch bridge, with a structure length of 193 feet and a clear roadway width of 28 feet. The structure was constructed in 1937. There have been no known rehabilitations. The need for this project is evidenced by the deteriorating condition of the existing structure. In the most recent Bridge Inspection Report, dated July 2, 2019, INDOT noted cracking in the copings. The superstructure exhibited minor cracking in the parapet walls, and cracking, delamination, and spalling with exposed rebar in the sidewalk underside. The substructure exhibited some cracking and scaling with efflorescence on the pier caps and stems. The structure was given a sufficiency rating of 59 out of 100 possible points.

The preferred alternative is to replace the existing bridge. The proposed replacement structure will be three-spans (58'-0", 75'-0", 58'-0") with a structure length of 191 feet, a clear roadway width of 32 feet, and skewed 15 degrees left. The approach roadway will have guardrails and concrete bridge railing transition. It is believed that up to 2 acres of right-of-way may be required for this project; however, the exact amount and locations have not been determined. Channel clearing will be required. SR 60 will be shifted approximately 18 feet upstream (east) from the existing alignment to accommodate maintenance of traffic. A single lane of traffic will be maintained during construction utilizing a temporary signal. Access will likely be restricted to SR 60 from John Street, Grove Street, and Poplar Street. The entrance to Sunoco from SR 60 will likely be closed, but the entrance from John Street will be maintained.

Land use in the vicinity of the project is a mix of residential, commercial, and agricultural. There is an underground telephone line running parallel to SR 60 on the east side of the roadway. There is an underground water line running parallel to SR 60 on the west side of the roadway. There are underground fiber optic and stormwater lines in the northeast quadrant of the project. There is a sanitary sewer line in the southwest quadrant of the project. Utility Coordination is being conducted by the HNTB Corporation.

Metric Environmental, LLC (Metric) will perform waters and wetlands determinations to identify any ecological resources that may be present. This project qualifies for the application of the USFWS range-wide programmatic

informal consultation for the Indiana bat and northern long-eared bat and project information will be submitted through USFW's Information for Planning and Consultation (IPaC) separately. This project appears to fall under Category B-10 (erosion control measures in undisturbed areas) and Category B-12 (bridge replacement) of the Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the INDOT, the Advisory Council on Historic Preservation (ACHP), and the Indiana State Historic Preservation Officer (Indiana SHPO) regarding the implementation of the Federal Aid Highway Program in the State of Indiana (MPPA). Metric will coordinate with the INDOT Cultural Resources Office (CRO) and Indiana SHPO for review and concurrence.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency believes 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 amount may be granted upon request. If you have any questions regarding this matter, please contact Irish L. Jones, Environmental Scientist, Metric Environmental, LLC at 317.608.2740, Irishj@MetricEnv.com, or 6971 Hillside Court, Indianapolis, Indiana 46250 or Brad Williamson, Project Manager, INDOT Seymour District, at Bwilliamson@indot.in.gov or 812.524.3971. Thank you in advance for your input.

Sincerely,



Irish L. Jones
Environmental Scientist
Metric Environmental, LLC

cc: File No. 18-0022-3
Angela Pearl, PE, Apearl@HNTB.com, HNTB Corporation
Brad Williamson, Project Manager, Bwilliamson@indot.in.gov INDOT Seymour District

Attachments: Location Map, USGS Topographic Map, 2015 Aerial Photograph, NRCS Soils Map, NRCS Soils Map Legend, National Wetlands Inventory Map, Flood Insurance Rate Map

The Attachments were intentionally omitted. Please refer to Appendix B and Appendix F in the CE document.



The following agencies received Early Coordination Letters:

Field Supervisor
U.S. Fish and Wildlife Service
Bloomington Indiana Field Office
{robin_mcwilliams@fws.gov}

Federal Highway Administration
{Michelle.Allen@dot.gov}
{Erica.Tait@dot.gov}

Indiana Department of Transportation
Office of Public Involvement
{rclark@indot.in.gov}
{mwright@indot.in.gov}

United States Department of Housing and Urban
Development
{Paul.J.Lehmann@hud.gov}

INDOT Seymour District
{Ddye@indot.in.gov}
{Bwilliamson@indot.in.gov}

Office of Utilities and Railroads
{mjett@indot.in.gov}

Ecology and Waterway Permitting Office
{jlandry@indot.in.gov}

National Parks Service
Midwest Regional Office
{Hector_Santiago@nps.gov}

Indiana Department of Natural Resources
Division of Fish and Wildlife
{environmentalreview@dnr.in.gov}

Indiana Department of Environmental
Management
Proposed Roadway Construction Projects
{<http://www.in.gov/idem/5284.htm>}

Washington County— Surveyor
Diana Green
{digreen@washingtoncounty.in.gov}

Washington County Highway Department
{rvoyles@co.Washington.in.us}

Washington County Commissioners
Phillip Marshall – President (District 1)
{d1comm@washingtoncounty.in.gov}
Todd Ewen (District 2)
{d2comm@washingtoncounty.in.gov}
Rick Roberts (District 3)
{d3comm@washingtoncounty.in.gov}

Washington County Council
Ben Bowling
{d1council@washingtoncounty.in.gov}
John Revels
{d2council@washingtoncounty.in.gov}
Preston Shell
{d3council@washingtoncounty.in.gov}
Karen Wischmeler
{d4council@washingtoncounty.in.gov}

Pierce-Polk Townships Volunteer Fire Department
{piercepolk@mymail.coop}

Natural Resources Conservation Service
{Rick.Neilson@in.usda.gov}

United States Army Corps of Engineers
{Gregory.A.McKay@usace.army.mil}

Indiana Geological Survey
{<https://igs.indiana.edu/eAssessment/>}

Wellhead Proximity Determinator
{www.in.gov/idem/cleanwater/pages/wellhead}

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

DNR #: ER-21806

Request Received: September 6, 2019

Requestor: Metric Environmental
Irish L Jones
6971 Hillside Court
Indianapolis, IN 46250

Project: SR 60 bridge (#060-88-03069) replacement over South Fork Blue River, about 0.42 mile west of SR 335 at RP 42+62; Des #1700173

County/Site info: Washington

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) Bank Stabilization & Wildlife Passage:

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to current conditions. A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage.

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). Where riprap must be used, we recommend placing only enough riprap to provide stream bank toe protection, such as from the toe of the bank 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 the area and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In

Attachments: A - Bridge Exemption Criteria

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many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material.

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 techniques for streambank stabilization: <http://directives.sc.gov.usda.gov/17553.wba>.

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/20190130-IR-312190041NRA.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).

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, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
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 5 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

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State of Indiana
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stabilized.

11. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

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: October 3, 2019

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



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

INDOT Seymour District
Brad Williamson
185 Agrico Lane
Seymour , IN 47274
Date

Metric Environmental
Irish L Jones
6971 Hillside Ct.
Indianapolis , IN 4625

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The existing structure (No. 060-88-03069, NBI No. 021480) is a three-span (50'-0", 50'-0", 50'-0") concrete arch bridge, with a structure length of 193 feet and a clear roadway width of 28 feet. The superstructure exhibited minor cracking in the parapet walls, and cracking, delamination, and spalling with exposed rebar in the sidewalk underside. The substructure exhibited some cracking and scaling with efflorescence on the pier caps and stems. The preferred alternative is to replace the existing bridge. The proposed replacement structure will be three-spans (58'-0", 75'-0", 58'-0") with a structure length of 191 feet, a clear roadway width of 32 feet, and skewed 15 degrees left. The approach roadway will have guardrails and concrete bridge railing transition. It is believed that up to 2 acres of right-ofway may be required for this project; however, the exact amount and locations have not been determined. Channel clearing will be required. SR 60 will be shifted approximately 18 feet upstream (east) from the existing alignment to accommodate maintenance of traffic.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: <http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

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 Wetlands Program. To learn more about the Wetlands 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 water body 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 (OWQ) 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 OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the following statutes:
 - o IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - o IC 14-26-5 Lowering of Ten Acre Lakes Act No related code

- IC 14-28-1 Flood Control Act 310 IAC 6-1
- IC 14-29-1 Navigable Waterways Act 312 IAC 6
- IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
- IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

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.

6. 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.

7. 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.
8. 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.
9. 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.
10. 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 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 (<http://www.in.gov/idem/4148.htm>) under specific conditions. You also can seek an open burning variance from IDEM.

However, 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) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

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.

Additionally, 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 3-5 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 3-5 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.

2. The U.S. EPA and the 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/4145.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, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, 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.) It also 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>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four 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.

However, 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 <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf> (<http://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. All notification remitters will be billed 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>).

4. 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/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).

5. 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 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>)).
6. 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 (View at: 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.
7. 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 atdem.state.in.us.

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 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. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

FINAL REMARKS

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

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that it is the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

Project Description

The existing structure (No. 060-88-03069, NBI No. 021480) is a three-span (50'-0", 50'-0", 50'-0") concrete arch bridge, with a structure length of 193 feet and a clear roadway width of 28 feet. The superstructure exhibited minor cracking in the parapet walls, and cracking, delamination, and spalling with exposed rebar in the sidewalk underside. The substructure exhibited some cracking and scaling with efflorescence on the pier caps and stems. The preferred alternative is to replace the existing bridge. The proposed replacement structure will be three-spans (58'-0", 75'-0", 58'-0") with a structure length of 191 feet, a clear roadway width of 32 feet, and skewed 15 degrees left. The approach roadway will have guardrails and concrete bridge railing transition. It is believed that up to 2 acres of right-of-way may be required for this project; however, the exact amount and locations have not been determined. Channel clearing will be required. SR 60 will be shifted approximately 18 feet upstream (east) from the existing alignment to accommodate maintenance of traffic.

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

Date: 9/9/2019

Signature of the INDOT

Project Engineer or Other Responsible Agent _____

Brad Williamson

Brad Williamson

Date: 9/9/2019

Signature of the

For Hire Consultant _____

Irish L Jones

Irish L Jones



Organization and Project Information

Project ID: 18-0022 T3
Des. ID: 1700173
Project Title: Bridge Replacement
Name of Organization: Metric Environmental
Requested by: Irish Jones

Environmental Assessment Report

1. Geological Hazards:

- High liquefaction potential
- 1% Annual Chance Flood Hazard

2. Mineral Resources:

- Bedrock Resource: Moderate Potential
- Sand and Gravel Resource: Low Potential

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.

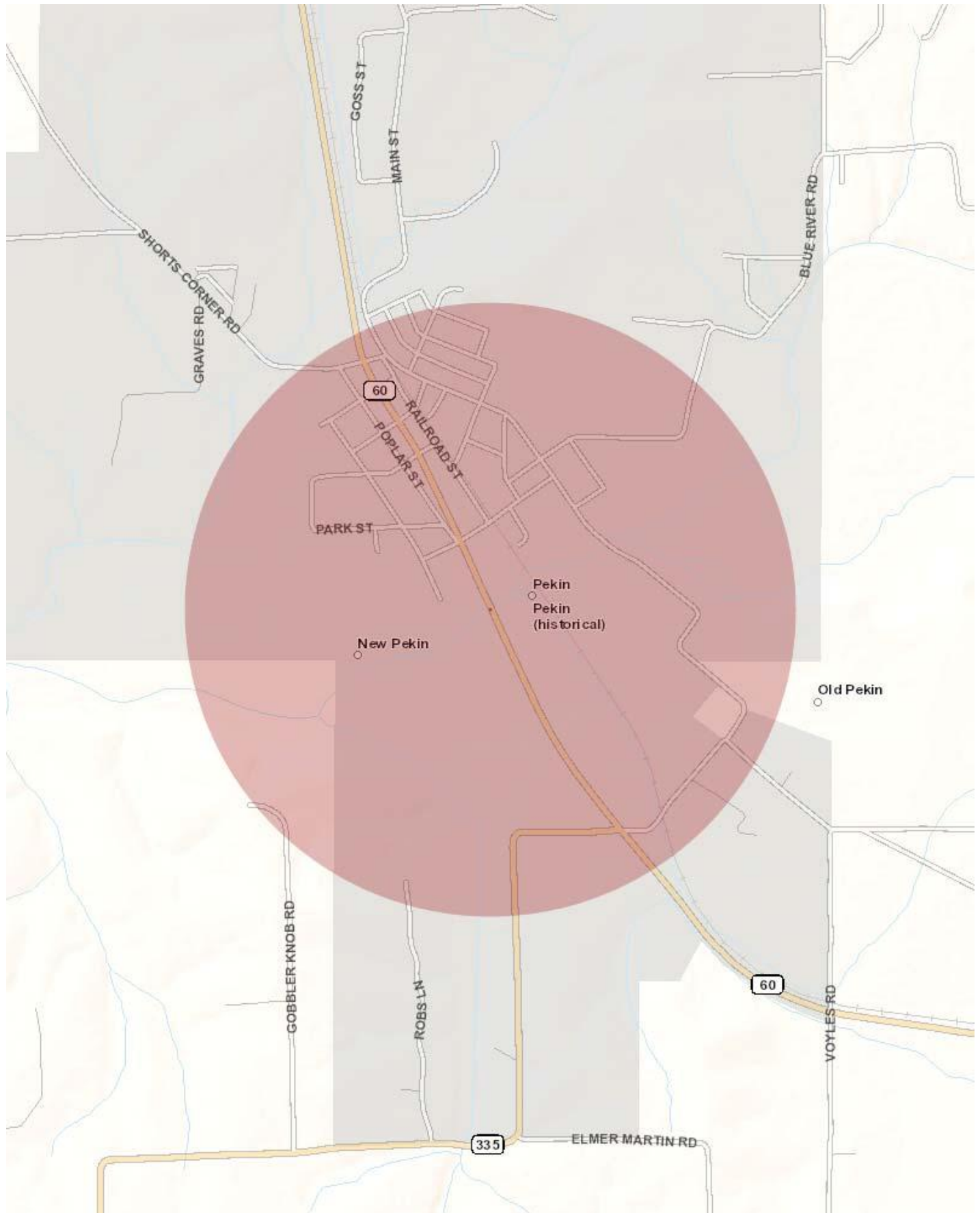
This information was furnished by Indiana Geological Survey

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

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: September 06, 2019



Metadata:

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



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:

December 11, 2019

Consultation Code: 03E12000-2020-SLI-0353

Event Code: 03E12000-2020-E-01803

Project Name: Des. No. 1700173, State Road (SR) 60 over South Fork Blue River, 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: 03E12000-2020-SLI-0353

Event Code: 03E12000-2020-E-01803

Project Name: Des. No. 1700173, State Road (SR) 60 over South Fork Blue River, Bridge Replacement

Project Type: TRANSPORTATION

Project Description: Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA), intends to proceed with a bridge replacement project, bridge #060-88-03069, National Bridge Inventory (NBI) #021480, carrying SR 60 over South Fork Blue River, approximately 0.42 mile west of SR 335, New Pekin, Washington County, Indiana.

The preferred alternative is to replace the existing three span reinforced concrete arch bridge with a three-span (58 feet, 75 feet, 58 feet) continuous composite pre-stressed concrete bulb-tee beam bridge for a total length of 192.6 feet, a clear roadway width of 30 feet, and skewed 15 degrees left. The bridge will consist of a 12-foot-wide through lane with a 3-foot-wide shoulder provided in each direction. The project will extend approximately 695 feet south and 585 feet north of the center of the existing structure for a total of 1,280 feet. From east and west, construction will vary up to 55 feet from the existing edge of pavement. Channel clearing will be required. This project is located in a rural area. Suitable summer habitat does exist near the project area. Thirteen trees, Silver Maple, Box Elder, and/or Sycamore are currently planned to be removed winter of 2021, 0 to 100 feet from the existing roadway in the northeast quadrant of the project area. No mitigation will be required. More than 0.5 acre of new permanent right-of-way will be necessary for the completion of this project. Temporary lighting may be required. No new permanent lighting will be necessary. The letting date is currently December 8, 2021. Construction is anticipated to take place from winter 2021 to fall 2022.

Based on consultation with INDOT Seymour District, August 13, 2019, a review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

A qualified staff member from Metric Environmental conducted an

inspection of the bridge on August 26, 2019. No evidence of bats was observed.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.499357454262935N86.01313497645017W>



Counties: Washington, IN

Endangered Species Act Species

There is a total of 2 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
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside 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 ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



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Phone: (812) 334-4261 Fax: (812) 334-4273

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

In Reply Refer To:

December 11, 2019

Consultation Code: 03E12000-2020-I-0353

Event Code: 03E12000-2020-E-01808

Project Name: Des. No. 1700173, State Road (SR) 60 over South Fork Blue River, Bridge Replacement

Subject: Concurrence verification letter for the 'Des. No. 1700173, State Road (SR) 60 over South Fork Blue River, 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 **Des. No. 1700173, State Road (SR) 60 over South Fork Blue River, 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.

Project Description

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

Name

Des. No. 1700173, State Road (SR) 60 over South Fork Blue River, Bridge Replacement

Description

Indiana Department of Transportation (INDOT), with funding from Federal Highway Administration (FHWA), intends to proceed with a bridge replacement project, bridge #060-88-03069, National Bridge Inventory (NBI) #021480, carrying SR 60 over South Fork Blue River, approximately 0.42 mile west of SR 335, New Pekin, Washington County, Indiana.

The preferred alternative is to replace the existing three span reinforced concrete arch bridge with a three-span (58 feet, 75 feet, 58 feet) continuous composite pre-stressed concrete bulb-tee beam bridge for a total length of 192.6 feet, a clear roadway width of 30 feet, and skewed 15 degrees left. The bridge will consist of a 12-foot-wide through lane with a 3-foot-wide shoulder provided in each direction. The project will extend approximately 695 feet south and 585 feet north of the center of the existing structure for a total of 1,280 feet. From east and west, construction will vary up to 55 feet from the existing edge of pavement. Channel clearing will be required. This project is located in a rural area. Suitable summer habitat does exist near the project area. Thirteen trees, Silver Maple, Box Elder, and/or Sycamore are currently planned to be removed winter of 2021, 0 to 100 feet from the existing roadway in the northeast quadrant of the project area. No mitigation will be required. More than 0.5 acre of new permanent right-of-way will be necessary for the completion of this project. Temporary lighting may be required. No new permanent lighting will be necessary. The letting date is currently December 8, 2021. Construction is anticipated to take place from winter 2021 to fall 2022.

Based on consultation with INDOT Seymour District, August 13, 2019, a review of the U.S. Fish and Wildlife Service (USFWS) database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

A qualified staff member from Metric Environmental conducted an inspection of the bridge on August 26, 2019. No evidence of bats was observed.

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 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

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

- *Des. No. 1700173 AppDBridgeStructureAssessmentFormJune2016 - CS - 9-27-19.pdf* <https://ecos.fws.gov/ipac/project/3KKX5PQG5BFJDAHXO5QJZZ3WDM/projectDocuments/19356906>

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?

N/A

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

N/A

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

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

1.17

4. Please describe the proposed bridge work:

Replace the existing three span reinforced concrete arch bridge with a three-span (58 feet, 75 feet, 58 feet) continuous composite pre-stressed concrete bulb-tee beam bridge for a total length of 192.6 feet, a clear roadway width of 30 feet, and skewed 15 degrees left.

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

Winter 2021 to Fall 2022

6. Please enter the date of the bridge assessment:

August 26, 2019

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.



Revised 08/08/2017

07/11/2019

Gary Nale
New Pekin Municipal Utilities
75 S Mill St.
Pekin, IN 47165

Subject: Initial Notice of Proposed Improvement Project Des. No. 1700173

Dear Gary;

Our firm has been assigned the task of utility coordination for the project referenced above by the Indiana Department of Transportation. In accordance with 105 IAC 13-3-1(c), this letter serves as your initial notice of the proposed improvement project Des. No. 1700173 on SR 60 in Washington County, Indiana.

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

- (1) Name or route number: SR 60
- (2) Geographical limits: 0.42 miles W of SR 335 over S Fork Blue River, 42+62, 42+62
- (3) General description of work: Br Repl, Comp. Cont. Conc. Construction
- (4) Date approved work plan will be needed: 01/1/2021
- (5) Ready for contracts date: 09/29/2021
- (6) Name of designer and contact information: Angela Pearl - HNTB
111 Monument Circle Suite 1200, Indianapolis, IN 46204
Telephone: (317) 636-4682
- (7) Major or minor project: Minor

In accordance with 105 IAC 13-3-1(d), within 30 days after receiving the initial notice, the utility shall respond in writing with a:

- (1) Description of the type and location of its facilities within the geographical limits of the proposed improvement project; or
- (2) If the utility has determined to the best of their abilities that they do not have facilities within the geographical limits of the improvement project; complete, sign, and return Page 1 of the attached Work Plan.

Additionally, please provide us the name, telephone number, postal address and email address of the person selected as your designated contact for this project to expedite future communications. We will contact Indiana 811 and request locates for this project prior to our survey. If you would prefer to provide us location information by some other means please contact this office to discuss.

HNTB Indiana, Inc
Engineers Architects Planners

111 Monument Circle
Suite 1200
Indianapolis, IN 46204

Telephone (317) 636-4682
Facsimile (317) 917-5211
www.hntb.com



Revised 08/08/2017

Please send your response to Doug Garvin, HNTB, 111 Monument Circle Suite 1200, Indianapolis, IN 46204, telephone: 317-917-5263, dgarvin@hntb.com. Thank you for your attention to these matters.

Sincerely;

A handwritten signature in blue ink, appearing to read "DG", with a long horizontal line extending to the right.

Doug Garvin
Utility Coordinator

Cc: File

December 30, 2019

Irish L. Jones
Metric Environmental
6971 Hillsdale Court
Indianapolis, Indiana 46250

Dear Mr. Jones:

The proposed project to make bridge improvements along State Road 60 over the South Fork of Blue River in Washington County, Indiana (Des No 1700173), as referred to in your letter received September 6, 2019, will cause a conversion of prime farmland.

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

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

JERRY RAYNOR
State Conservationist

Enclosures



**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 12/20/19	4. Sheet 1 of <u>1</u>
1. Name of Project DES1700173_SR 60 over South Fork of Blue		5. Federal Agency Involved Indiana Department of Transportation	
2. Type of Project Bridge Replacement		6. County and State Washington County, Indiana	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 9/6/19	2. Person Completing Form JRA
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated Average Farm Size 245 Ac	
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 276,708 % 84	7. Amount of Farmland As Defined in FPPA Acres: 136,204 % 41	
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 12/30/19	

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment :			
	Corridor 1	Corridor 2	Corridor 3	Corridor 4
A. Total Acres To Be Converted Directly	1.10			
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	1.10	0.00	0.00	0.00

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	1.10			
B. Total Acres Statewide And Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	86.0			

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)				
	69			

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points				
1. Area in Nonurban Use	15	8			
2. Perimeter in Nonurban Use	10	4			
3. Percent Of Corridor Being Farmed	20	1			
4. Protection Provided By State And Local Government	20	0			
5. Size of Present Farm Unit Compared To Average	10	5			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availability Of Farm Support Services	5	5			
8. On-Farm Investments	20	0			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	23	0	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	69			
Total Corridor Assessment (From Part VI above or a local site assessment)	160	23	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	92	0	0	0

1. Corridor Selected: A	2. Total Acres of Farmlands to be Converted by Project: 1.10 Ac.	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
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5. Reason For Selection:
The need for this proposed project is to address current deteriorating conditions of the bridge which carries SR 60 over South Fork of Blue River. The purpose of this project is to address the deteriorating conditions before operational function and safety of the traveling public are compromised by the deteriorating state of the structure.

Signature of Person Completing this Part: **Irish L Jones** DATE **12/20/19**

NOTE: Complete a form for each segment with more than one Alternate Corridor

APPENDIX D:
**Section 106 of the National Historic
Preservation Act**

Minor Projects PA Project Assessment Form – Category B Projects with Archaeology Work

Date: 9/25/2019

Project Designation Number: 1700173

Route Number: SR 60

Project Description: Bridge Replacement over S. Fork Blue River, 0.42 miles west of SR 335

Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) propose to utilize federal funds for a bridge project. The project is located on State Road (SR) 60, approximately 0.42 mile west of SR 335. Specifically, this project is located at the intersection of Sections 25 and 30, Township 1 North, Range 4 East on the Salem, Indiana and Palmyra, Indiana 7.5-minute United States Geological Survey (USGS) topographic quadrangles. The existing structure (No. 060-88-03069, NBI No. 021480) is a three-span (50'-0", 50'-0", 50'-0") concrete arch bridge, with a structure length of 193 feet and a clear roadway width of 28 feet. The structure was constructed in 1937. There have been no known rehabilitations. The bridge is listed as "Not Eligible" for the National Register of Historic Places on the Indiana Historic Bridge Inventory. The need for this project is evidenced by the deteriorating condition of the existing structure. In the most recent Bridge Inspection Report, dated July 2, 2019, INDOT noted cracking in the copings. The superstructure exhibited minor cracking in the parapet walls, and cracking, delamination, and spalling with exposed rebar in the sidewalk underside. The substructure exhibited some cracking and scaling with efflorescence on the pier caps and stems. The structure was given a sufficiency rating of 59 out of 100 possible points.

The preferred alternative is to replace the existing bridge. The proposed replacement structure will be three-spans (58'-0", 75'-0", 58'-0") with a structure length of 191 feet, a clear roadway width of 32 feet, and skewed 15 degrees left. The approach roadway will have guardrails and concrete bridge railing transition. It is believed that up to 2 acres of right-of-way may be required for this project; however, the exact amount and locations have not been determined. Channel clearing will be required. SR 60 will be shifted approximately 18 feet upstream (east) from the existing alignment to accommodate maintenance of traffic. A single lane of traffic will be maintained during construction utilizing a temporary signal. The survey area is irregularly shaped approximately 424.0 m (1,391.1 ft) along SR 60 and 78.3 m (256.9 ft) wide at the widest and encompasses 2.5 ha (6.2 ac).

Feature crossed (if applicable): South Fork of Blue River

Township: Pierce, and Polk Townships

City/County: New Pekin, Washington County

Information reviewed (please check all that apply):

- | | | | | | |
|--|-------------------------------------|-------------------------------|-------------------------------------|-------------------|-------------------------------------|
| General project location map | <input checked="" type="checkbox"/> | USGS map | <input checked="" type="checkbox"/> | Aerial photograph | <input checked="" type="checkbox"/> |
| Written description of project area | <input type="checkbox"/> | General project area photos | <input checked="" type="checkbox"/> | | |
| Previously completed archaeology reports | <input checked="" type="checkbox"/> | Interim Report | <input checked="" type="checkbox"/> | | |
| Previously completed historic property reports | <input type="checkbox"/> | | | | |
| Soil survey data | <input checked="" type="checkbox"/> | Bridge inspection information | <input checked="" type="checkbox"/> | | |

Other (please specify): Bridge Inspection Application System (BIAS); Indiana Historic Bridge Inventory; Indiana State Historic Architectural and Archaeological Research Database (SHAARD); Indiana Buildings, Bridges, and Cemeteries Map website; *Washington County Interim Report*; online street-view imagery; ArcMap GIS, Washington County GIS website, MPPA application (including maps and photographs) sent by Metric Environmental dated September 6th, 2019 and on file at INDOT CRO.

Snell, Samuel P.

2019 Phase Ia Archaeological Survey for the SR 60 over South Fork of the Blue River Project (Des. No. 1700173), New Perkin, Pierce, and Polk Townships, Washington County, Indiana. Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

Results of the Records Review for Above-Ground Resources:

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 Washington County. No listed resources are located near the project area.

The Indiana Historic Sites and Structures Inventory (IHSSI) and National Register information for Washington County are available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The *Washington County Interim Report* (2008; New Pekin Scattered Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. An INDOT-CRO historian reviewed the SHAARD Online Map and checked it against the Interim Report hard-copy maps.

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register-eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "notable" might possess the necessary level of significance after further research. Properties rated "outstanding" usually possess the necessary level of significance to be considered National Register eligible, if they retain material integrity.

One (1) IHSSI documented properties rated higher than "Contributing" is located within 0.25 mile of the project area:

- IHSSI# 175-567-41040, House, 510 E Main St., c. 1945, Minimal Traditional, "Notable"

The INDOT CRO historian reviewed structures adjacent to the project area utilizing online aerial, street-view photography, and the Washington County GIS website (accessed via <https://washingtonin.wthgis.com>). The project area is located in a small town setting with adjacent above-ground resources consisting of early twentieth to early twenty-first century commercial and residential buildings. None of the structures appear to possess the age, significance or integrity required to be considered NRHP eligible. One (1) "Notable" property (IHSSI# 175-567-41040, 510 E Main St.) documented in SHAARD is located within 0.25 miles of the project area. However, this property is obscured from the project viewshed by distance, buildings, and vegetation. Therefore, IHSSI# 175-567-41040 is not considered adjacent to the projected area.

The most recent inspection report (C. Everman; 7/2/2019) from the Bridge Inspection Application System (BIAS) was referenced to review the bridge. The subject structure (Bridge #060-88-03069, NBI No. 021480) was constructed in 1937 and is a three-span 193 foot long concrete arch bridge that carries SR 60 over the South Fork of Blue River. The subject bridge is documented in SHAARD (HB-2873) with a "Contributing" rating, however the Indiana Historic Bridge Inventory (M & H Architecture, Inc., 2009) lists the bridge as "Non Historic" (Vol. 2; Section 2, pg.1060) and is therefore not eligible for inclusion in the National Register of Historic Places.

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

Archaeology Report Author/Date:

Samuel P. Snell/September 6, 2019

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia field reconnaissance (Snell 2019) were conducted by Metric personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The records check identified no previously recorded sites within or adjacent to the project area but determined that a portion of the current project area was previously examined. To account for any future design changes, an area larger than the anticipated project construction footprint was surveyed. Approximately 6.2 acres of land was examined through visual walkover survey, 5m interval pedestrian transects, one shovel test prove, and five soil cores. The northern half of the project area was found to contain either disturbed or eroded soils. The agricultural fields in the southern half were investigated through close interval pedestrian transects. No archaeological sites were identified and no further work was recommended. The report has been 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 Snell (September 6, 2019). Therefore, there are no archaeological concerns.

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

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

A-9. Installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils.

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.

Additional comments: 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): Clint Kelly and Shaun Miller

****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.*

APPENDIX E:
Red Flag and Hazardous Materials



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: October 8, 2019

To: Site Assessment & Management
Environmental Policy Office - Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Kennita Jones
Metric Environmental
6971 Hillside Court
Indianapolis, Indiana
KennitaJ@metricenv.com

Re: RED FLAG INVESTIGATION
DES #: 1700173, State Project
Bridge Replacement, Existing INDOT Bridge No. 060-88-03069
State Road (SR) 60 over South Fork Blue River
New Pekin, Washington County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) propose to utilize federal funds for a bridge replacement project. The project is located on SR 60 over South Fork Blue River in New Pekin, Washington County, Indiana. The existing structure, INDOT Bridge No. 060-88-03069, is a three-span, 193 ft. long concrete arch bridge with a 28 ft. clear roadway width and 2 ft. wide sidewalk with curb liner in both directions. According to the abbreviated engineer's report dated June 27, 2019, the existing bridge is in fair condition. The sidewalk and curb liner exhibit cracks, delamination, spalls, and exposed reinforcing steel, the existing arches exhibit minor cracking and efflorescence in all three spans and construction joints. There is cracking, scaling, and spalling in the south spandrel wall at piers 2 and 3 and on the north side of pier 2. The preferred alternative is to replace the existing bridge. The proposed replacement structure will be three-spans (58'-0", 75'-0", 58'-0") with a structure length of 191 feet, a clear roadway width of 32 feet, and skewed 15 degrees left. The approach roadway will have guardrails and concrete bridge railing transition. It is believed that up to 2 acres of right-of-way may be required for this project; however, the exact amount and locations have not been determined. Channel clearing will be required. SR 60 will be shifted approximately 18 feet upstream (east) from the existing alignment to accommodate maintenance of traffic. A single lane of traffic will be maintained during construction utilizing a temporary signal. Access will likely be restricted to SR 60 from John Street, Grove Street, and Poplar Street. The entrance to Sunoco from SR 60 will likely be closed, but the entrance from John Street will be maintained. The purpose of this project is to address the substandard condition of the existing bridge. The replacement structure for this project will be a three-span concrete bulb-tee beam structure. The current letting date for the project is scheduled for December of 2021.

Bridge and/or Culvert Project: Yes No Structure # 060-88-03069

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 >0.5 Permanent # Acres >0.5 Not Applicable

Type of excavation: Excavation will occur at a depth of approximately 19 feet for the removal of the existing structure.

Maintenance of traffic: A single lane of traffic across the bridge will be maintained during construction. Temporary signals will be used to alert drivers. Access will likely be restricted to SR 60 from John Street, Grove Street, and Poplar Street. The entrance to Sunoco from SR 60 will likely be closed, but the entrance from John Street will be maintained.

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

State Project: LPA:

Any other factors influencing recommendations: N/A

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	5*	Recreational Facilities	1
Airports ¹	N/A	Pipelines	N/A
Cemeteries	N/A	Railroads	1
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.

Religious Facilities: Although not mapped on the Indiana GIO database, five (5) religious facilities are located within the 0.5-mile search radius. The nearest feature, Merrill Bright Tabernacle-God is located approximately 0.16-mile northeast of the project area at 173 East Main Street. No impact is expected.

Recreational Facilities: One (1) recreational facility is located within the 0.5-mile search radius. The feature is located approximately 0.23-mile northwest of the project area. No impact is expected.

Railroads: One (1) railroad segment is located within the 0.5-mile search radius. The segment is located approximately 0.07-mile east of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	11
Canal Structures – Historic	N/A	Lakes	4
NPS NRI Listed	N/A	Floodplain - DFIRM	1
NWI-Lines	11	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	22	Sinking-Stream Basins	N/A

NWI – Lines: Eleven (11) NWI – Line segments are located within the 0.5-mile search radius. One segment is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Rivers and Streams: Twenty-two (22) river and stream segments are located within the 0.5-mile search radius. One segment is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI – Wetlands: Eleven (11) NWI – Wetlands are located within the 0.5-mile search radius. One wetland is located approximately 0.35-mile west of the project area. No impact is expected.

Lakes: Four (4) lake features are located within the 0.5-mile search radius. The nearest feature is located approximately 0.45-mile west of the project area. No impact is expected.

Floodplain – DFIRM: One (1) floodplain polygon is located within the 0.5-mile search radius. The project area is located within a floodplain polygon. Coordination with INDOT ES Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

N/A

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 were identified 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	3*	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	N/A	Notice of Contamination Sites	N/A

Underground Storage (UST) Site: Although not included in the GIO database, three (3) UST sites are located within the 0.5-mile search radius. The closest feature is an unmapped Robert McCarty Sunoco (AI ID#: 59124, FID#: 15537) which adjoins the project area to the west at 545 E SR 60. The most recent Underground Storage Tank Inspection Report (document #: 80414456) dated January 30, 2017, identified one (1) 8,000 gallon gasoline UST and one (1) 10,000 gallon gasoline UST registered for use at the site. The USTs are fiberglass and were installed at the facility in 1991. No violations were identified during the January 2017 inspection. No impact is expected.

Phillips 66, E. Main Street and Blue River Road, #019076 (AI ID#: 58840, Regulatory ID#: 7669) was formerly the site of a gas station. According to the IDEM Virtual File Cabinet (VFC), Phillips 66 is located in Salem, Indiana; however, the intersection of Main Street and Blue River does not exist in Salem. Therefore, it appears that this site is mapped correctly. According to the IDEM VFC, Phillips 66 operated a gas station at the site pre-1985. In 1986, three gasoline tanks and one used oil tank, all temporarily out of use, were reported to be on-site. On May 2, 2017 IDEM informed the owner, via letter, that an inspector with the IDEM UST Section would be conducting an inspection at the facility within the next 30 to 45 days. On August 21, 2017, the property owner sent a letter to IDEM UST Section indicating that he bought the property on April 15, 1985 and approximately May or June 1985 the tank or tanks were removed, the hole was filled with limestone gravel, and paved over for parking. This contradicts the tank certification form dated April 3, 1986. No other correspondence is located in the VFC pertaining to this site. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Washington 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 ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5-mile of the project area. The northern project area is located in a residential and commercial and the southern project area is surrounded by farm fields. The July 2, 2019 inspection report for Bridge #060-88-03069 states that no evidence of bats was seen or heard under the bridge. 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'.

An inquiry using the USFWS Information for Planning and Consulting (IPaC) website did not indicated that the presence of the federal endangered species, the Rusty Patched Bumble Bee, in or within 0.5-mile of the projects 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 following water resources will require the preparation of a Waters of the US Report and coordination with INDOT ES Ecology and Waterway Permitting:

- One (1) NWI – Line segment flows through the project area.
- One (1) stream segment, South Fork of Blue River, flows through the project area.
- The project area 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 USFWS and IDNR will occur. 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"

INDOT Environmental Services concurrence:

 Digitally signed by Ronald Bales
Date: 2019.10.08 11:15:18 -04'00'

(Signature)

Prepared by:

Kennita Jones

Project Manager

Metric Environmental

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

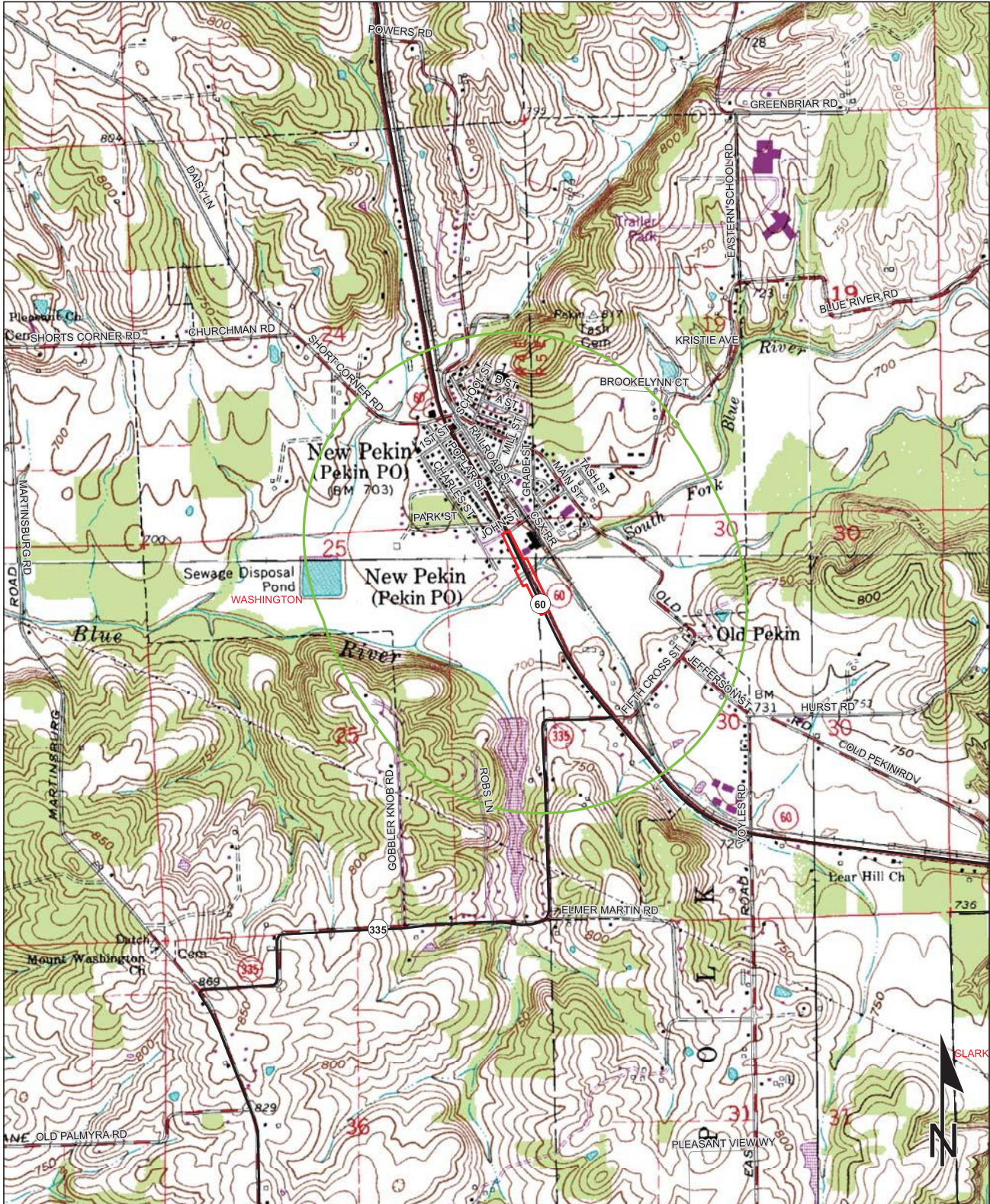
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

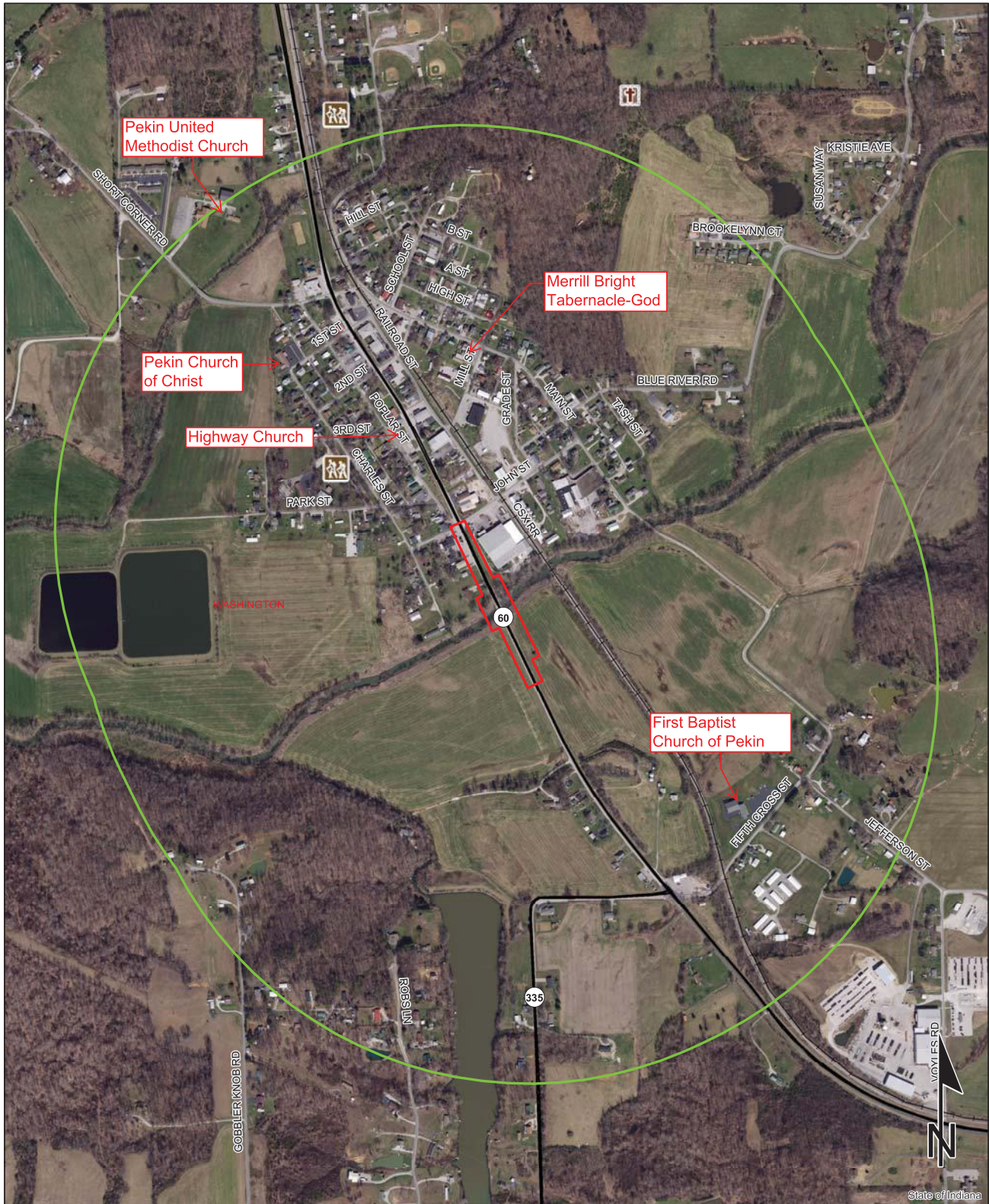
Red Flag Investigation - Site Location
 SR 60 over South Fork Blue River (Bridge No. 060-88-03069)
 Des. No. 1700173 , Bridge Replacement
 Washington County, Indiana



Sources: 0.3 0.15 0 0.3 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.

**PALMYRA QUADRANGLE
 INDIANA
 7.5 MINUTE SERIES
 (TOPOGRAPHIC)**

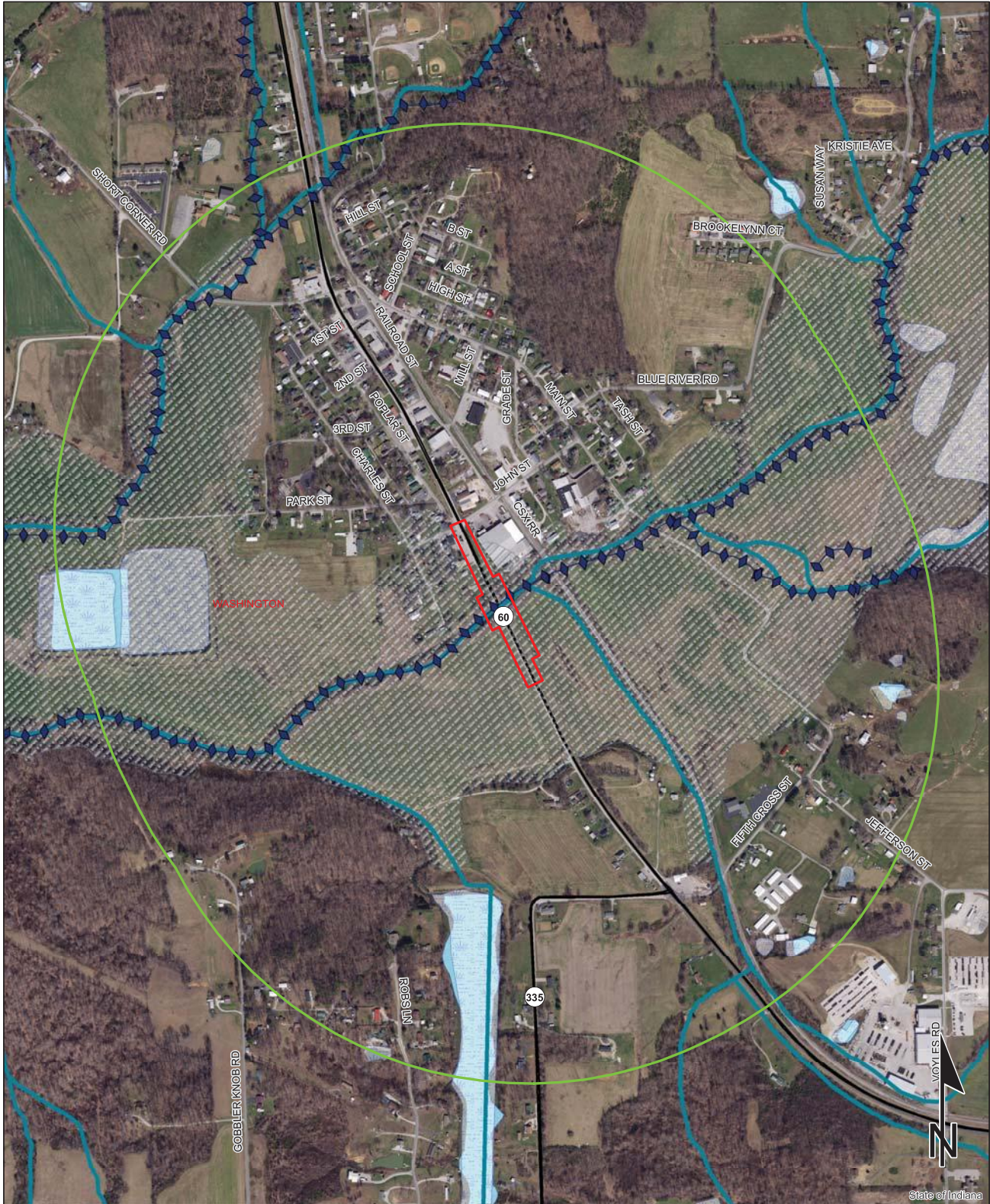
Red Flag Investigation - Infrastructure
 SR 60 over South Fork Blue River (Bridge No. 060-88-03069)
 Des. No. 1700173 , Bridge Replacement
 Washington County, Indiana



Sources: 0.15 0.075 0 0.15 Miles
Non Orthophotography
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	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

Red Flag Investigation - Water Resources
 SR 60 over South Fork Blue River (Bridge No. 060-88-03069)
 Des. No. 1700173 , Bridge Replacement
 Washington County, Indiana



Sources:

Non Orthophotography

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

Red Flag Investigation - Hazardous Material Concerns

SR 60 over South Fork Blue River (Bridge No. 060-88-03069)

Des. No. 1700173 , Bridge Replacement

Washington 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
Notice_Of_Contamination	Solid Waste Landfill	Half Mile Radius
Construction/Demolition Site	State Cleanup Site	Toll
Infectious/Medical Waste Site	Superfund	Interstate
Leaking Underground Storage Tank	Tire Waste Site	State Route
Manufactured Gas Plant	Underground Storage Tank	US Route
NPDES Facilities	Voluntary Remediation Program	Local Road
NPDES Pipe Locations	Waste Transfer Station	
Open Dump Waste Site		



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Indiana County Endangered, Threatened and Rare Species List

County: Washington

Species Name	Common Name	FED	STATE	GRANK	SRANK
Platyhelminthes (Flatworms)					
Sphalloplana weingartneri	Weingartner's Cave Flatworm		WL	G4	S3
Diplopoda					
Conotyia bollmani	Bollman's Cave Milliped		WL	G5	S3
Pseudotremia indianae	Blue River Cave Milliped		WL	G4	S4
Crustacean: Malacostraca					
Crangonyx packardi	Packard's Cave Amphipod		WL	G4	S3
Miktoniscus barri	Barr's Terrestrial Isopod		WL	G2G4	SNR
Orconectes inermis inermis	A Troglotic Crayfish		WL	G5T4	S3
Crustacean: Copepoda					
Diacyclops jeanneli	Jeannel's Cave Copepod		ST	G3G4	S2
Crustacean: Ostracoda					
Dactylocythere susanae	An Ostracod		WL	G2G4	S3
Pseudocandona jeanneli	Jeannel's Cave Ostracod		SE	G2	S1
Sagittocythere barri	Barr's Commensal Cave Ostracod		WL	G5	S3S4
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma torulosa	Tubercled Blossom	LE	SX	GX	SX
Fusconaia subrotunda	Longsolid	C	SX	G3	SX
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Ligumia recta	Black Sandshell			G4G5	S2
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Pleurobema rubrum	Pyramid Pigtoe		SX	G2G3	SX
Ptychobranthus fasciolaris	Kidneyshell		SSC	G4G5	S2
Simpsonaias ambigua	Salamander Mussel	C	SSC	G3	S2
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Mollusk: Gastropoda					
Carychium riparium	Floodplain Thorn			G2	SNR
Zonitoides kirbyi	Shadow Gloss			G2	SNR
Ellipluran: Collembola					
Arrhopalites ater	Black Medusa Cave Springtail		ST	G2	S2
Arrhopalites benitus	A Springtail		WL	G1	S1
Arrhopalites lewisi	Lewis' Cave Springtail		ST	GNR	S2
Folsomia prima	Primitive Springtail		WL	GNR	S4
Folsomides americanus	Small Springtail		SE	GNR	S1
Hypogastrura horrida	Bristly Springtail		WL	GNR	SNR
Isotoma anglicana	A Springtail		WL	GNR	SNR
Isotoma caeruleatra	Blue Springtail		WL	GNR	SNR

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Indiana County Endangered, Threatened and Rare Species List

County: Washington

Species Name	Common Name	FED	STATE	GRANK	SRANK
Isotoma nigrifrons	Dark Springtail		WL	GNR	SNR
Isotoma nixonii	Nixon's Springtail		WL	GNR	SNR
Isotoma torildae			WL	GNR	SNR
Onychiurus casus	Fallen Springtail		WL	GNR	S4
Onychiurus relictus	A Springtail		WL	GNR	S4
Pseudosinella collina	Hilly Springtail		SR	GNR	S2?
Pseudosinella fonsa	Fountain Cave Springtail		ST	G3G4	S2
Sinella alata	Springtail		WL	G5	S4
Sinella cavernarum	A Springtail		WL	G5	S3
Insect: Coleoptera (Beetles)					
Aleochara lucifuga	Rove beetle		WL	GNR	S4
Necrophilus pettiti	A Carrion Beetle		ST	GNR	S1?
Pseudanophthalmus stricticollis	Marengo Cave Ground Beetle		WL	G4	S3
Pseudanophthalmus tenuis	Cave Beetle		WL	G4	S4
Pseudanophthalmus youngi	Young's cave ground beetle		SR	G3G4	S2
Insect: Lepidoptera (Butterflies & Moths)					
Erynnis martialis	Mottled Duskywing		WL	G3	S3
Arachnida					
Bathypantes weyeri	A Cave Spider			G4	SNR
Cicurina arcuata	A Funnel-web Weaver			G5	S1
Hesperochernes mirabilis	Southeastern Cave Pseudoscorpion		WL	G5	S4
Kleptochthonius packardi	Packard's Cave Pseudoscorpion		SE	G2G3	S2
Fish					
Amblyopsis hoosieri	Hoosier cavefish	C	SE	G2	S1
Etheostoma maculatum	Spotted Darter		SSC	G2G3	S2S3
Etheostoma variatum	Variagate Darter		SE	G5	S1
Notropis ariommus	Popeye Shiner			G3	SX
Amphibian					
Acris blanchardi	Blanchard's Cricket Frog		SSC	G5	S4
Cryptobranchus alleganiensis alleganiensis	Eastern Hellbender	C	SE	G3G4T3T4	S1
Necturus maculosus	Common mudpuppy		SSC	G5	S2
Reptile					
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Nerodia erythrogaster neglecta	Copperbelly Water Snake	PS:LT	SE	G5T3	S2
Opheodrys aestivus	Rough Green Snake		SSC	G5	S3
Terrapene carolina carolina	Eastern Box Turtle		SSC	G5T5	S3
Bird					
Aimophila aestivalis	Bachman's Sparrow			G3	SXB

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Indiana County Endangered, Threatened and Rare Species List

County: Washington

Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Ammodramus henslowii</i>	Henslow's Sparrow		SE	G4	S3B
<i>Cistothorus platensis</i>	Sedge Wren		SE	G5	S3B
<i>Haliaeetus leucocephalus</i>	Bald Eagle		SSC	G5	S2
<i>Helmitheros vermivorus</i>	Worm-eating Warbler		SSC	G5	S3B
<i>Setophaga cerulea</i>	Cerulean Warbler		SE	G4	S3B
<i>Setophaga citrina</i>	Hooded Warbler		SSC	G5	S3B
<i>Tyto alba</i>	Barn Owl		SE	G5	S2
Mammal					
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat		SSC	G3G4	SH
<i>Myotis austroriparius</i>	Southeastern Bat		SSC	G4	SH
<i>Myotis lucifugus</i>	Little Brown Bat	C	SE	G3	S2
<i>Myotis septentrionalis</i>	Northern Long Eared Bat	LT	SE	G1G2	S2S3
<i>Myotis sodalis</i>	Indiana Bat	LE	SE	G2	S1
<i>Perimyotis subflavus</i>	Tricolored Bat		SE	G2G3	S2S3
<i>Sorex hoyi</i>	Pygmy Shrew		SSC	G5	S2
<i>Taxidea taxus</i>	American Badger		SSC	G5	S2
Vascular Plant					
<i>Aconitum uncinatum</i>	Blue Monkshood		SE	G4	S1
<i>Bacopa rotundifolia</i>	Roundleaf Water-hyssop		ST	G5	S2
<i>Calamagrostis porteri</i> ssp. <i>insperata</i>	Reed Bent Grass		SE	G4T3	S1
<i>Carex straminea</i>	Straw Sedge		ST	G5	S2
<i>Chelone obliqua</i> var. <i>speciosa</i>	Rose Turtlehead		WL	G4T3	S3
<i>Crataegus iracunda</i>	Illinois Hawthorn		SE	GNR	S1
<i>Cuscuta cuspidata</i>	Cusp Dodder		SE	G5	S1
<i>Diervilla lonicera</i>	Northern Bush-honeysuckle		WL	G5	S3
<i>Eleocharis bifida</i>	Glades spikerush		SE	G3G4	S1
<i>Hexalectris spicata</i>	Crested Coralroot		SR	G5	S3
<i>Juncus secundus</i>	Secund Rush		SE	G5?	S1
<i>Lathyrus venosus</i>	Smooth Veiny Pea		SE	G5	S1
<i>Linum sulcatum</i>	Grooved Yellow Flax		SR	G5	S3
<i>Magnolia acuminata</i>	Cucumber Magnolia		SE	G5	S1
<i>Matelea obliqua</i>	Angle Pod		SR	G4?	S3
<i>Oenothera triloba</i>	Stemless Evening-primrose		SX	G4	SX
<i>Ophioglossum engelmannii</i>	Limestone Adder's-tongue		SR	G5	S3
<i>Pachysandra procumbens</i>	Allegheny Spurge		SE	G4G5	S1
<i>Penstemon deamii</i>	Deam Beardtongue		ST	G1	S2
<i>Pleopeltis polypodioides</i>	Resurrection Fern		WL	G5	S3
<i>Polygala incarnata</i>	Pink Milkwort		SE	G5	S1
<i>Schoenoplectiella purshiana</i>	Weakstalk Bulrush		SR	G4G5	S3
<i>Silene regia</i>	Royal Catchfly		SE	G3	S1

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Indiana County Endangered, Threatened and Rare Species List

County: Washington

Species Name	Common Name	FED	STATE	GRANK	SRANK
Thalictrum pubescens	Tall Meadowrue		SR	G5	S3
Tragia cordata	Heart-leaved Noseburn		WL	G4	S3
Waldsteinia fragarioides	Barren Strawberry		SR	G5	S3
Woodwardia areolata	Netted Chainfern		SR	G5	S3
High Quality Natural Community					
Barrens - bedrock limestone	Limestone Glade		SG	G4	S2S3
Barrens - bedrock siltstone	Siltstone Glade		SG	G2	S2
Barrens - chert	Chert Barrens		SG	G2	S1
Forest - upland dry-mesic Highland Rim	Highland Rim Dry-mesic Upland Forest		SG	GNR	S3
Forest - upland mesic Highland Rim	Highland Rim Mesic Upland Forest		SG	GNR	S3
Primary - cave aquatic	Aquatic Cave		SG	GNR	SNR
Primary - cave terrestrial	Terrestrial Cave		SG	GNR	SNR
Primary - cliff limestone	Limestone Cliff		SG	GU	S1

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State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

APPENDIX F:

Water Resources

WATERS DETERMINATION REPORT

S.R. 60 OVER SOUTH FORK OF THE BLUE RIVER
BRIDGE PROJECT
DES. NO. 1700173
PIERCE AND POLK TOWNSHIP, WASHINGTON COUNTY,
INDIANA

Prepared for:
HNTB Corporation

November 4, 2019



Metric Environmental, LLC

Complex Environment. Creative Solutions.

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Indianapolis, IN 46256
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WATERS OF THE U.S. DETERMINATION REPORT
S.R. 60 over the South Fork of the Blue River
Bridge Project
Pierce and Polk Township, Washington County, Indiana
Des. No. 1700173
Prepared By: Zachary Root, Metric Environmental, LLC
November 4, 2019

Date of Waters Field Investigation: August 7, 2019

Location:

Section 25 & 30; Township 1 North; Range 4 & 5 East
 Palmyra, IN 7.5 minute U.S.G.S. Topographic Quadrangles (**Exhibit 2**)
 Pierce and Polk Township, Washington County, Indiana
 12-Digit HUC Watershed: 051401040602
 Latitude: 38.4994645 Longitude: -86.0131954

National Wetlands Inventory (NWI) Information:

One mapped NWI polygon is located within the project study limits (PSL), listed in the table below. The NWI mapped polygon is associated with the South Fork of the Blue River. The NWI map is provided as **Exhibit 3**.

Symbol	Wetland Type	Location within PSL	Corresponding Feature
R2UBH	Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded	Central	South Fork Blue River

Karst Feature Information:

No mapped karst features were found within 0.5 mi. of the PSL during the desktop review.

USGS National Hydrography Dataset (NHD) Information:

Three mapped NHD flowlines are located within the PSL, listed by occurrence from east to west within the PSL in the table below. The NHD map is provided in **Exhibit 3**.

Corresponding Feature	NHD Flowline Classification	Photo Nos.	USGS Blue line
South Fork of Blue River	Artificial Path	10-14, 27-36	Yes
Culvert 1, RSD 1, Honeycomb Drain	Canal/Ditch	3, 5-9	No
RSD 2	Stream/River	14-18	No

FEMA Flood Insurance Rate Map (FIRM):

One mapped floodplain, the floodplain of the South Fork of Blue River, covers the majority of the PSL. This area is identified as Zone A, an area subject to inundation by the 1 percent annual chance of flood. The FIRM map for this area is provided as **Exhibit 3**.

Soils:

According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Washington County, Indiana, the PSL contained three mapped soil units, listed in the table below. The NRCS soil survey map is provided as **Exhibit 3**.

Symbol	Map unit name	Hydric Rating
Ba	Bartle silt loam, 0 to 2 percent slopes	Hydric (3%)
Cu	Cuba silt loam, frequently flooded	Hydric (3%)
Sf	Stendal silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Hydric (2%)

Attached Documents:

- Maps of the project area (**Exhibits 1-4**)
- Photo Location Map (**Exhibit 5**)
- Site Photographs
- Wetland Determination Data Form(s)
- Preliminary Jurisdictional Determination Form

Project Description:

The proposed project (Des. No. 1700173) includes replacement of the existing bridge (INDOT Bridge No. 060-88-03069) with a three-spans bridge (58 ft., 75 ft., 58 ft.) with a total structure length of 192.6 ft., a clear roadway width of 32 ft., and skewed 15 degrees left. The approach roadway will have guardrails and concrete bridge railing transition. Channel clearing will be required. SR 60 will be shifted approximately 18 ft. upstream (east) from the existing alignment to accommodate existing bridge removal and maintenance of traffic.

Field Reconnaissance:

The wetland determination field visit was conducted on August 7, 2019 by Zachary Root of Metric Environmental, LLC. The PSL consists of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States. This investigation was conducted in accordance with the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *April 2012 Eastern Mountains and Piedmont Region (version 2.0) Manual*.

A Location Map showing the project location is provided as **Exhibit 1**. The proposed project is located in the southeastern tip of Washington County, Indiana, on S.R. 60 approximately 0.42 mi. west of S.R. 335. The PSL extended from the center of the structure along S.R. 60 to the northwest S.R. 60 over South Fork of the Blue River

Bridge Project
Des. No. 1700173
Pierce and Polk Township, Washington County, Indiana
Metric Project No. 18-0022-3



approximately 650 ft. and to the southeast 740 ft. The PSL extends from 50 ft. to 120 ft. perpendicular to S.R. 60. An aerial map of sampling points and water features is provided as **Exhibit 4**. A photo location map is provided as **Exhibit 5** and site photographs are attached.

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of U.S. The sampling point (SP) locations were chosen in possible wetland areas within the PSL. The upland areas consisted of deciduous forest, agricultural field, and residential lawn. Upland areas where sampling points were not taken, were investigated and determined to be upland due to upward sloping topography and presence of dominant upland vegetation. Five sampling points were taken and identified as SP-1, SP-2, SP-3, SP-4, and SP-5. The sampling points, recorded on the USACE Wetland Determination Data Forms and shown on **Exhibit 4**, provided the following information:

Sampling Plot Data Summary Table
S.R. 60 over South Fork of the Blue River
Bridge Project
Pierce and Polk Township, Washington County, Indiana
Des. No. 1700173

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
SP-1	39-41	38.49937 -86.01301	Yes	No	Yes	No
SP-2	42-44	38.49808 -86.01217	No	No	Yes	No
SP-3	45-47	38.49917 -86.01321	Yes	No	No	No
SP-4	48-50	38.49941 -86.01336	Yes	No	No	No
SP-5	51-53	38.49971 -86.01311	No	No	No	No

Wetlands:

No wetlands were observed within the PSL.

Sampling Points:

Five sampling points were taken in areas where wetlands were suspected but did not meet the three wetland criteria. A description of this sampling points is included below.

Sampling Point 1 (SP-1)

SP-1 was located east of S.R. 60, within the floodplain on a terrace south of the South Fork of the Blue River. The dominant vegetation at this sampling point was silver maple (*Acer saccharinum*, FACW) in the tree stratum; great ragweed (*Ambrosia trifida*, FAC) and reed canary grass (*Phalaris*

S.R. 60 over South Fork of the Blue River
 Bridge Project
 Des. No. 1700173
 Pierce and Polk Township, Washington County, Indiana
 Metric Project No. 18-0022-3



arundinacea, FACW) and Japanese hops (*Humulus japonicus*, FACU) in the herb stratum. This plot passes the dominance test for hydrophytic vegetation as 67 percent of dominant species are FAC or wetter. To a depth of 20 inches, the soil in the test pit was a silty clay loam. From 0 to 20 in., the soil exhibited a matrix color of 10YR 5/3 (100 percent). This did not meet the criteria for hydric soil. One primary indicator of wetland hydrology, drift deposits (B3), and two secondary indicators of wetland hydrology, drainage patterns (B10) and FAC-Neutral test (D5), were observed. Since the hydric soil was not met, this area did not qualify as a wetland.

Sampling Point 2 (SP-2)

SP-2 was located east of S.R. 60, within a likely manmade concave depression in agricultural field south of South Fork Blue River. The dominant vegetation at this sampling point was soybean (*Glycine max*, NI) and wild cucumber (*Echinocystis lobata*, FACU) in the herb stratum. This did not meet any of the criteria for hydrophytic vegetation. To a depth of 20 inches, the soil in the test pit was silty clay loam. From 0 to 20 in., the soil exhibited a matrix color of 10YR 5/3 (90 percent) with faint redox concentrations of 10YR 4/4 (10 percent) in the matrix. This did not meet the criteria for hydric soil. Three secondary indicators; surface soil cracks (B6), drainage patterns (B10) and stunted or stressed plants (D1) were observed. Historical aerial imagery shows stunted or stressed plants were present two of the last eight years of imaging. This indicates infrequent flooding for short durations in the area surrounding the sampling point. However, due to the lack of hydrophytic vegetation and hydric soils, it is not likely this area receives the frequency or duration of flooding to warrant a farmed wetland. Since the hydrophytic vegetation and hydric soil were not met, this area did not qualify as a wetland.

Sampling Point 3 (SP-3)

SP-3 was located west of S.R. 60, within the floodplain on a terrace south of the South Fork of the Blue River. The dominant vegetation at this sampling point was silver maple (*Acer saccharinum*, FACW) in the tree stratum, reed canary grass (*Phalaris arundinacea*, FACW) and great ragweed (*Ambrosia trifida*, FAC), and Japanese hops (*Humulus japonicus*, FACU) in the herb stratum. This plot passes the dominance test for hydrophytic vegetation as 75 percent of dominant species are FAC or wetter. To a depth of 20 in., the soils in the test pit was a silty clay loam. From 0 to 20 in., the soil exhibited a matrix color of 10YR 4/3 (100 percent). This did not meet the criteria for hydric soil. One secondary indicators of wetland hydrology, geomorphic position (D2), was observed. Since hydric soil and wetland hydrology were not met, this area did not qualify as a wetland.

Sampling Point 4 (SP-4)

SP-4 was located west of S.R. 60, within the floodplain on a terrace north of the South Fork of the Blue River. The dominant vegetation at this sampling point was boxelder (*Acer negundo*, FAC) and American elm (*Ulmus Americana*, FACW) in the sapling/shrub stratum and great ragweed (*Ambrosia trifida*, FAC), American hog-peanut (*Amphicarpaea bracteata*, FAC), and Johnson grass (*Sorghum halepense*, FACU) in the herb stratum. This plot passes the dominance test for hydrophytic vegetation as 80 percent of dominant species are FAC or wetter. To a depth of 20

in., the soils in the test pit was a silty clay loam. From 0 to 20 in., the soil exhibited a matrix color of 10YR 4/3 (100 percent). This did not meet the criteria for hydric soil. One secondary indicator of wetland hydrology, geomorphic position (D2), was observed. Since the hydric soil and wetland hydrology were not met, this area did not qualify as a wetland.

Sampling Point 5 (SP-5)

SP-5 was located east of S.R. 60, on the top of a slope within the floodplain north of the South Fork of the Blue River. SP-5 was taken within the mapped R2UBH wetland. The dominant vegetation at this sampling point was silver maple (*Acer saccharinum*, FACW) in the tree stratum, black walnut (*Juglans nigra*, FACU) and black cherry (*Prunus serotina*, FACU) in the sapling/shrub stratum, and ground ivy (*Glechoma hederacea*, FACU) in the herb stratum. This did not meet any of the criteria for hydrophytic vegetation. To a depth of 20 in., the soils in the test pit were a silty clay loam. From 0 to 20 in., the soil exhibited a matrix color of 10YR 5/4 (100 percent). This did not meet the criteria for hydric soil. No indicators of wetland hydrology were observed. Since none of the three wetland criteria were met, this area did not qualify as a wetland.

Streams:

One stream, South Fork of the Blue River, was observed within the PSL during the field reconnaissance. Descriptions of the stream is provided below.

**Stream Summary Table
S.R. 60 over South Fork of the Blue River
Bridge Project
Pierce and Polk Township, Washington County, Indiana
Des. No. 1700173**

Stream Name	Photos	Lat/Long	OHWM Width	OHWM Depth	USGS Blue-line	Riffles Pools	Quality	Likely Water of the U.S.	Substrate	Potential Stream Impact
			ft.	ft.						ft.
South Fork of the Blue River	10-14, 27-36	38.499421 -86.013179	42	1	Yes (Perennial)	Yes	Average	Yes	Boulder slabs, Cobble, Gravel, and Silt	265

South Fork of the Blue River (265 LFT)

The South Fork of the Blue River flows from northeast to southwest and is approximately 265 linear feet in length (0.256 ac.) within the PSL. The South Fork of the Blue River flows southwest into the Blue River, a Section 10 Traditional Navigable Water (TNW). Therefore, the South Fork of the Blue River should be considered a jurisdictional Water of the U.S. The South Fork of the Blue River is associated with a solid blue line on the USGS topographic map, indicating it is perennial. The South Fork of the Blue River was classified by the NWI as a Riverine, Lower

S.R. 60 over South Fork of the Blue River
Bridge Project
Des. No. 1700173
Pierce and Polk Township, Washington County, Indiana
Metric Project No. 18-0022-3



Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBH) wetland. The Ordinary High Water Mark (OHWM) was an average of 42 ft wide and 1 ft. deep within the PSL. All OHWM measurements were taken outside the influence of the structure. The stream substrate consisted of boulder slabs, cobble, gravel, and silt. Overhanging vegetation and undercut banks were the in-stream cover present. Wetland fringe and drift deposits were observed along the stream throughout the PSL but the wetland areas were determined to be within the bank full elevation of the stream. Vegetation dominating the banks of the stream were silver maple (*Acer saccharinum*), Sycamore (*Platanus occidentalis*), reed canary grass (*Phalaris arundinacea*), spotted touch-me-not (*Impatiens capensis*), great ragweed (*Ambrosia trifida*), and Japanese hops (*Humulus japonicus*). No sinuosity was observed, and water velocity was moderate. Aquatic organisms, fish and frogs, were found in the stream. According to USGS *Indiana StreamStats*, the drainage area upstream of the South Fork of the Blue River at the PSL is 41.971 square miles. Based on qualitative analysis, South Fork of the Blue River is an average quality resource.

Roadside Ditches:

Two roadside ditches were identified within the PSL. RSD 1 was located in the northeast quadrant and RSD 2 was located in the southeast quadrant of the PSL. These features did have incised channels as they got closer to South Fork Blue River, possibly due to the field and road runoff volumes. However, in areas where there was not debris, there was dominantly upland vegetation present within the incised ditch. Therefore, frequency and periods of inundation were not enough to deter vegetation growth. Therefore, no OHWM was observed in these features, so they are likely non-jurisdictional.

Culverts and Drains:

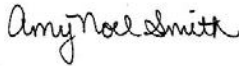
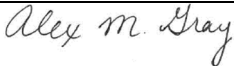

One culvert and one drain were identified within the PSL. Culvert 1 was a corrugated metal pipe (CMP). The drain likely aids in roadside drainage and stormwater conveyance during storm or significant flood events. Culvert 1 is a continuation of RSD 1, carrying runoff/stormwater downhill to South Fork Blue River. These culverts did not carry jurisdictional waters due to a lack of an OHWM, bed and bank, and lack of a significant nexus to any jurisdictional Waters of the U.S. Locations of these culverts are shown on **Exhibits 4, Exhibit 5**, and the attached photosheet.

Conclusion:

One stream, the South Fork of the Blue River, totaling 265 linear feet (0.256 ac.), was identified within the PSL. These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgement based on the guidelines set forth by the Corps.

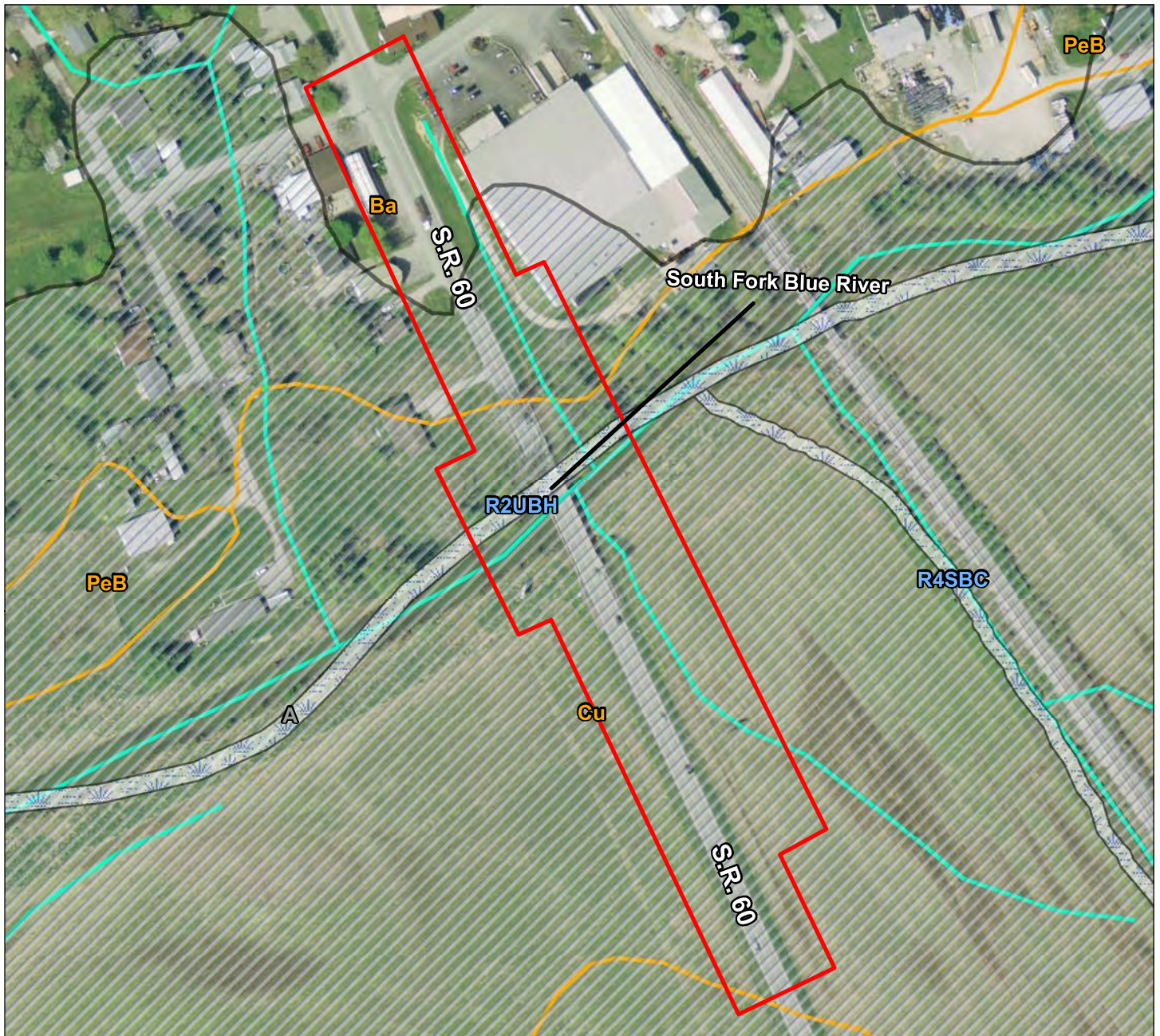
Acknowledgements:

This waters determination has been prepared based on the best available information, interpreted in light of the investigator’s training, experience and professional judgement in conformance with the 1987 Corps of engineers Wetlands Delineation Manual, the appropriate regional supplement, the USACE Jurisdictional Determination Form Instructional Guidebook, and other appropriate agency guidelines.

Metric Environmental Staff	Position	Contributing Effort	Signature/Date
Amy Noel Smith	Natural Resources Project Manager II	Project Manager, Field Data Collection	 11/4/19
Alex Gray	Natural Resources Project Manager I	QAQC	 11/4/19
Zachary Root	Environmental Scientist 2	Field Data Collection, Report Preparation	 11/4/19

To conserve space, photographs and duplicate exhibits have been intentionally omitted from this document. Please refer to Appendix B in the CE document.



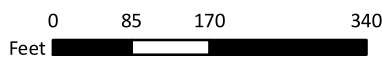


Symbol	Map Unit Name	Hydric Rating
Ba	Bartle silt loam, 0 to 2 percent slopes	Hydric (3%)
Cu	Cuba silt loam, frequently flooded	Hydric (3%)
Sf	Stendal silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Hydric (2%)

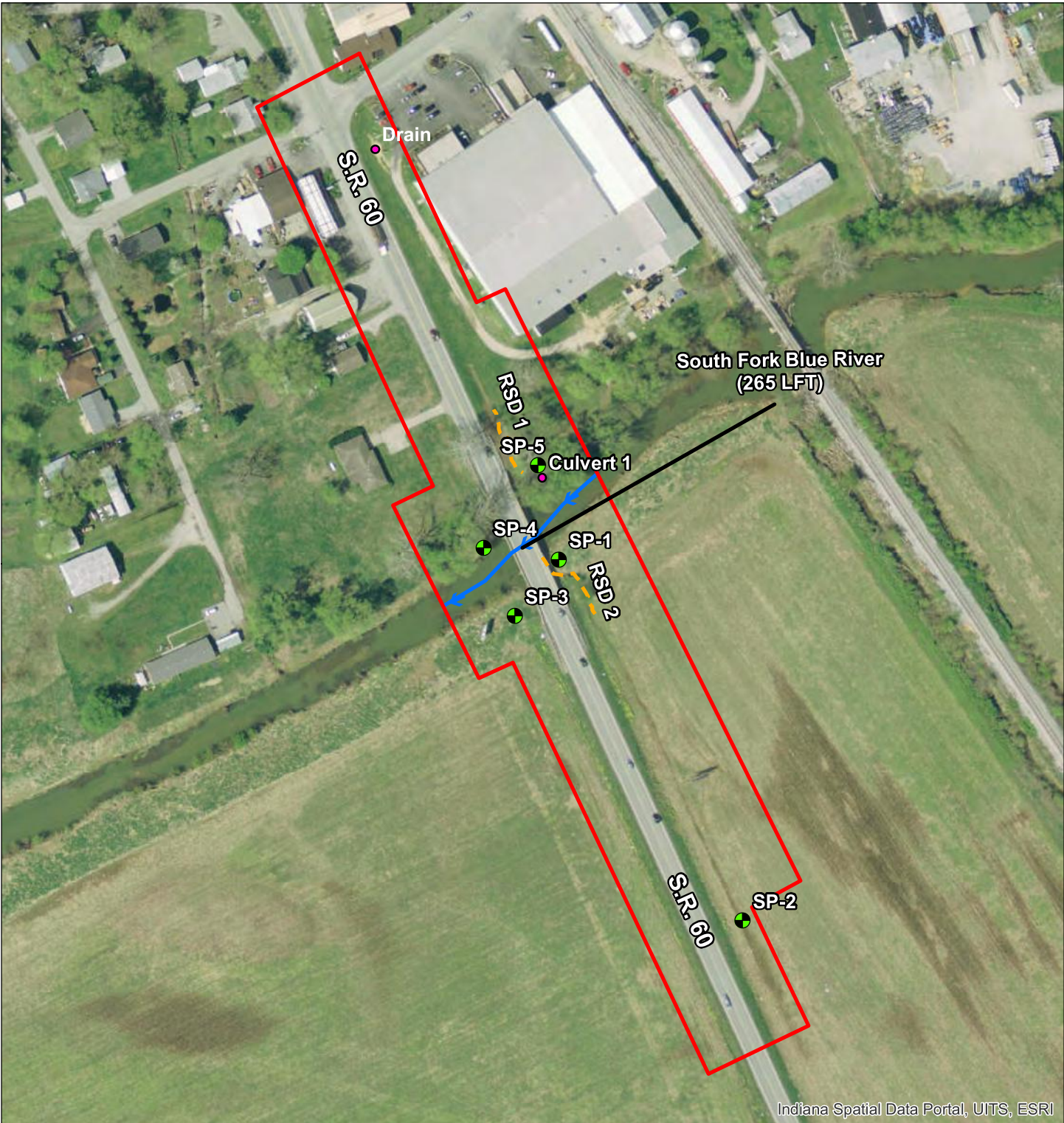
- Project Study Limits (PSL)
- NHD Flowline
- NRCS Soil Survey
- Floodplain - Zone A - 1% Chance Annual Flood
- NWI Wetland

Exhibit 3 - NWI, FIRM, NHD, NRCS Soil Map
 S.R. 60 over South Fork of The Blue River
 Bridge Project
 Pierce & Polk Township, Washington County, IN
 Des. No. 1700173
 Metric Project No. 18-0022-3
 Map Date: 8/5/2019
 Map Author: Zachary Root

All locations approximate
 Source: Indiana Spatial Data Portal (2016)



Exh. 3



Indiana Spatial Data Portal, UITS, ESRI

- Project Study Limits (PSL)
- Stream
- Culvert/Drain
- Sampling Points (SP)
- - Roadside Ditch (RSD)
- - Culvert

Exhibit 4 - Waters Delineation Map
 S.R. 60 over South Fork of The Blue River
 Bridge Project
 Pierce & Polk Township, Washington County, IN
 Des. No. 1700173
 Metric Project No. 18-0022-3
 Map Date: 8/5/2019
 Map Author: Zachary Root

All locations approximate
 Source: Indiana Spatial Data Portal (2016)

N

0 75 150 300

Feet



Exh. 4

WETLAND DETERMINATION DATA FORM -- Eastern Mountains and Piedmont Region

Project/Site: S.R. 60 over South Fork of The Blue River (Des 1700173) City/County: New Pekin/Washington State: IN
 Applicant/Owner: INDOT Investigator(s): Zachary Root Section, Township, Range: S 25, 1 N, 3 E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none
 Subregion (LRR or MLRA): LRR L Lat: 38.49937 Long: -86.01301
 Soil Map Unit Name: Cuba silt loam (3% hydric) NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>		
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>		

Remarks:
Sampling Point 1

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- | | |
|---|--|
| <u> </u> Surface Water (A1) | <u> </u> True Aquatic Plants (B14) |
| <u> </u> High Water Table (A2) | <u> </u> Hydrogen Sulfide Odor (C1) |
| <u> </u> Saturation (A3) | <u> </u> Oxidized Rhizospheres on Living Roots (C3) |
| <u> </u> Water Marks (B1) | <u> </u> Presence of Reduced Iron (C4) |
| <u> </u> Sediment Deposits (B2) | <u> </u> Recent Iron Reduction in Tilled Soils (C6) |
| <u>X</u> Drift Deposits (B3) | <u> </u> Thin Muck Surface (C7) |
| <u> </u> Algal Mat or Crust (B4) | |
| <u> </u> Iron Deposits (B5) | |
| <u> </u> Inundation Visible on Aerial Imagery (B7) | |
| <u> </u> Water-Stained Leaves (B9) | |
| <u> </u> Aquatic Fauna (B13) | |

Field Observations:

Surface Water Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Water Table Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Saturation Present? (includes capillary fringe)	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>

Wetland Hydrology Pres

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Drainage patterns in the form of woody debris were observed. See photos 14-16.

VEGETATION -- Use scientific names of plants.

Sampling Point: _____

Tree Stratum (Plot size: <u>30' radius</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Acer saccharinum</i>	25%	Yes	FACW
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
50% of total cover: <u>13%</u>		<u>25%</u> = Total Cover	20% of total cover:	<u>5%</u>
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
50% of total cover: <u>0%</u>		<u>0%</u> = Total Cover	20% of total cover:	<u>0%</u>
Herb Stratum (Plot size: <u>5' radius</u>)				
1.	<i>Ambrosia trifida</i>	50%	Yes	FAC
2.	<i>Phalaris arundinacea</i>	30%	No	FACW
3.	<i>Impatiens capensis</i>	20%	No	FACW
4.	<i>Phytolacca americana</i>	20%	No	FACU
5.	<i>Glechoma hederacea</i>	20%	No	FACU
6.	<i>Humulus japonicus</i>	70%	Yes	FACU
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
50% of total cover: <u>105%</u>		<u>210%</u> = Total Cover	20% of total cover:	<u>42%</u>
Woody Vine Stratum (Plot size: <u>30' radius</u>)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
50% of total cover: <u>0%</u>		<u>0%</u> = Total Cover	20% of total cover:	<u>0%</u>

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2

Total Number of Dominant Species Across All Strata: 3

Percent of Dominant Species That Are OBL, FACW, or FAC: 67%

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	
OBL species	x1 = _____
FACW species <u>75%</u>	x2 = <u>1.5</u>
FAC species <u>50%</u>	x3 = <u>1.5</u>
FACU species <u>110%</u>	x4 = <u>4.4</u>
UPL species	x5 = _____
Column Totals: <u>2.35</u> (A)	<u>7.4</u>

Prevalence Index = B/A = 3.15

Hydrophytic Vegetation Indicators:

_____ 1-Rapid Test for Hydrophytic Vegetation

2-Dominance Test is >50%

_____ 3-Prevalence Index is ≤3.0¹

_____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No _____

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND DETERMINATION DATA FORM -- Eastern Mountains and Piedmont Region

Project/Site: S.R. 60 over South Fork of The Blue River (Des 1700173) City/County: New Pekin/Washington Sampling
 Applicant/Owner: INDOT State: IN Sampling
 Investigator(s): Zachary Root Section, Township, Range: S 25, 1 N, 3 E
 Landform (hillslope, terrace, etc.): Agricultural Field Local relief (concave, convex, none): None
 Subregion (LRR or MLRA): LRR L Lat: 38.49808 Long: -86.01217 Datum:
 Soil Map Unit Name: Cuba silt loam (3% hydric) NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?		
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>		Yes <u> </u>	No <u> </u>
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks:
 Sampling Point 2

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

<u> </u> Surface Water (A1)	<u> </u> True Aquatic Plants (B14)	<u>X</u>
<u> </u> High Water Table (A2)	<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Saturation (A3)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u>X</u>
<u> </u> Water Marks (B1)	<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Sediment Deposits (B2)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	
<u> </u> Drift Deposits (B3)	<u> </u> Thin Muck Surface (C7)	
<u> </u> Algal Mat or Crust (B4)		
<u> </u> Iron Deposits (B5)		<u>X</u>
<u> </u> Inundation Visible on Aerial Imagery (B7)		
<u> </u> Water-Stained Leaves (B9)		
<u> </u> Aquatic Fauna (B13)		

Field Observations:

Surface Water Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Water Table Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Saturation Present? (includes capillary fringe)	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>

Wetland Hydrology Present

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

In addition to stunted or stressed plants observed during the site visit, historical aerial imagery shows soil saturation present two of the last eight years of imaging pro stressed plants. This indicates infrequent flooding for short durations in the area surrounding the sampling point.

VEGETATION -- Use scientific names of plants.

Sampling Point:

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: <u>30' radius</u>)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0% = Total Cover		
50% of total cover:	<u>0%</u>	20% of total cover:	<u>0%</u>
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
50% of total cover:	<u>0%</u>	20% of total cover:	<u>0%</u>
Herb Stratum (Plot size: <u>5' radius</u>)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	110% = Total Cover		
50% of total cover:	<u>55%</u>	20% of total cover:	<u>22%</u>
Woody Vine Stratum (Plot size: <u>30' radius</u>)			
1.			
2.			
3.			
4.			
5.			
6.			
	0% = Total Cover		
50% of total cover:	<u>0%</u>	20% of total cover:	<u>0%</u>

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0

Total Number of Dominant Species Across All Strata: 1

Percent of Dominant Species That Are OBL, FACW, or FAC: 0%

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
That Are OBL, FACW, or FAC:	
OBL species	x1 =
FACW species	x2 =
FAC species	x3 =
FACU species <u>110%</u>	x4 = <u>4.4</u>
UPL species	x5 =
Column Totals: <u>1.10</u> (A)	<u>4.4</u>
Prevalence Index = B/A = <u>4.00</u>	

Hydrophytic Vegetation Indicators:

1-Rapid Test for Hydrophytic Vegetation

2-Dominance Test is >50%

3-Prevalence Index is ≤3.0¹

4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND DETERMINATION DATA FORM -- Eastern Mountains and Piedmont Region

Project/Site: S.R. 60 over South Fork of The Blue River (Des 1700173) City/County: New Pekin/Washington Sampling
 Applicant/Owner: INDOT State: IN Sampling
 Investigator(s): Zachary Root Section, Township, Range: S 25, 1 N, 3 E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Subregion (LRR or MLRA): LRR L Lat: 38.49912 Long: -86.01327 Datum:
 Soil Map Unit Name: Cuba silt loam (3% hydric) NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u> </u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:
 Sampling Point 3

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

<u> </u> Surface Water (A1)	<u> </u> True Aquatic Plants (B14)	<u> </u> Seco
<u> </u> High Water Table (A2)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u>
<u> </u> Saturation (A3)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u>
<u> </u> Water Marks (B1)	<u> </u> Presence of Reduced Iron (C4)	<u> </u>
<u> </u> Sediment Deposits (B2)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u>
<u> </u> Drift Deposits (B3)	<u> </u> Thin Muck Surface (C7)	<u> </u>
<u> </u> Algal Mat or Crust (B4)		<u> </u>
<u> </u> Iron Deposits (B5)		<u> </u>
<u> </u> Inundation Visible on Aerial Imagery (B7)		<u> </u>
<u> </u> Water-Stained Leaves (B9)		<u> </u>
<u> </u> Aquatic Fauna (B13)		<u> </u>

Field Observations:

Surface Water Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Water Table Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Saturation Present? (includes capillary fringe)	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>

Wetland Hydrology Present

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: _____

Tree Stratum (Plot size: <u>30' radius</u>)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Acer saccharinum</i>	25%	Yes	FACW
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
50% of total cover: <u>13%</u>		<u>25%</u> = Total Cover	20% of total cover: <u>5%</u>	
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
50% of total cover: <u>0%</u>		<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>	
Herb Stratum (Plot size: <u>5' radius</u>)				
1.	<i>Phalaris arundinacea</i>	50%	Yes	FACW
2.	<i>Ambrosia trifida</i>	50%	Yes	FAC
3.	<i>Convolvulus equitans</i>	20%	No	FACU
4.	<i>Humulus japonicus</i>	60%	Yes	FACU
5.	<i>Echinocystis lobata</i>	20%	No	FAC
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
50% of total cover: <u>100%</u>		<u>200%</u> = Total Cover	20% of total cover: <u>40%</u>	
Woody Vine Stratum (Plot size: <u>30' radius</u>)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
50% of total cover: <u>0%</u>		<u>0%</u> = Total Cover	20% of total cover: <u>0%</u>	

Dominance Test worksheet:	
Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u>
Total Number of Dominant Species Across All Strata:	<u>4</u>
Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>75%</u>
Prevalence Index worksheet:	
Total % Cover of: That Are OBL, FACW, or FAC:	Multiply by
OBL species	x1 = _____
FACW species <u>75%</u>	x2 = <u>1.5</u>
FAC species <u>70%</u>	x3 = <u>2.1</u>
FACU species <u>80%</u>	x4 = <u>3.2</u>
UPL species	x5 = _____
Column Totals: <u>2.25</u> (A)	<u>6.8</u>
Prevalence Index = B/A = <u>3.02</u>	
Hydrophytic Vegetation Indicators:	
<input type="checkbox"/> 1-Rapid Test for Hydrophytic Vegetation	
<input checked="" type="checkbox"/> 2-Dominance Test is >50%	
<input type="checkbox"/> 3-Prevalence Index is ≤3.0 ¹	
<input type="checkbox"/> 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Hydrophytic Vegetation Present?	
Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND DETERMINATION DATA FORM -- Eastern Mountains and Piedmont Region

Project/Site: S.R. 60 over South Fork of The Blue River (Des 1700173) City/County: New Pekin/Washington Sampling
 Applicant/Owner: INDOT State: IN Sampling
 Investigator(s): Zachary Root Section, Township, Range: S 25, 1 N, 3 E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none
 Subregion (LRR or MLRA): LRR L Lat: 38.49941 Long: -86.01336 Datum:
 Soil Map Unit Name: Cuba silt loam (3% hydric) NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area	
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>	within a Wetland?	Yes <u> </u>
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>		No <u> </u>

Remarks:
 Sampling Point 4

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

<u> </u> Surface Water (A1)	<u> </u> True Aquatic Plants (B14)
<u> </u> High Water Table (A2)	<u> </u> Hydrogen Sulfide Odor (C1)
<u> </u> Saturation (A3)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)
<u> </u> Water Marks (B1)	<u> </u> Presence of Reduced Iron (C4)
<u> </u> Sediment Deposits (B2)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)
<u> </u> Drift Deposits (B3)	<u> </u> Thin Muck Surface (C7)
<u> </u> Algal Mat or Crust (B4)	
<u> </u> Iron Deposits (B5)	
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Water-Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	

Field Observations:

Surface Water Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Water Table Present?	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>
Saturation Present? (includes capillary fringe)	Yes <u> </u>	No <u>X</u>	Depth (inches): <u> </u>

Wetland Hydrology Present

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM -- Eastern Mountains and Piedmont Region

Project/Site: S.R. 60 over South Fork of The Blue River (Des 1700173) City/County: New Pekin/Washington Sampling Date: 8/7/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-5

Investigator(s): Zachary Root Section, Township, Range: S 25, 1 N, 4 E

Landform (hillslope, terrace, etc.): Top of Hillslope Local relief (concave, convex, none): Convex Slope (%): 0

Subregion (LRR or MLRA): LRR L Lat: 38.49971 Long: -86.01311 Datum: NAD 83

Soil Map Unit Name: Cuba silt loam (3% hydric) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>x</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:
Upland Sampling Point 5

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum c
Primary Indicators (minimum of one is required: check all that apply)		
<u> </u> Surface Water (A1)	<u> </u> True Aquatic Plants (B14)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Sparsely Vegetated Concave Surface (B8)
<u> </u> Saturation (A3)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Drainage Patterns (B10)
<u> </u> Water Marks (B1)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Moss Trim Lines (B16)
<u> </u> Sediment Deposits (B2)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Drift Deposits (B3)	<u> </u> Thin Muck Surface (C7)	<u> </u> Crayfish Burrows (C8)
<u> </u> Algal Mat or Crust (B4)		<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Iron Deposits (B5)		<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Inundation Visible on Aerial Imagery (B7)		<u> </u> Geomorphic Position (D2)
<u> </u> Water-Stained Leaves (B9)		<u> </u> Shallow Aquitard (D3)
<u> </u> Aquatic Fauna (B13)		<u> </u> Microtopographix Relief (D4)
		<u> </u> FAC-Neutral Test (D5)

Field Observations:			Wetland Hydrology Present? Yes <u> </u> No <u>x</u>
Surface Water Present?	Yes <u> </u>	No <u>X</u> Depth (inches): <u> </u>	
Water Table Present?	Yes <u> </u>	No <u>X</u> Depth (inches): <u> </u>	
Saturation Present? (includes capillary fringe)	Yes <u> </u>	No <u>X</u> Depth (inches): <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION -- Use scientific names of plants.

Sampling Point: **SP-5**

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Acer saccharinum</i></u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
	<u>30%</u> = Total Cover		
50% of total cover: <u>15%</u>	<u>20%</u> of total cover:	<u>6%</u>	

Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Juglans nigra</i></u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>
2. <u><i>Prunus serotina</i></u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	<u>20%</u> = Total Cover		
50% of total cover: <u>10%</u>	<u>20%</u> of total cover:	<u>4%</u>	

Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Glechoma hederacea</i></u>	<u>70%</u>	<u>Yes</u>	<u>FACU</u>
2. <u><i>Urtica dioica</i></u>	<u>20%</u>	<u>No</u>	<u>FACU</u>
3. <u><i>Ambrosia trifida</i></u>	<u>20%</u>	<u>No</u>	<u>FAC</u>
4. <u><i>Amphicarpaea bracteata</i></u>	<u>10%</u>	<u>No</u>	<u>FAC</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	<u>120%</u> = Total Cover		
50% of total cover: <u>60%</u>	<u>20%</u> of total cover:	<u>24%</u>	

Woody Vine Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	<u>0%</u> = Total Cover		
50% of total cover: <u>0%</u>	<u>20%</u> of total cover:	<u>0%</u>	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:	That Are OBL, FACW, or FAC:	Multiply by:	A/B
OBL species _____	_____	x1 = _____	
FACW species <u>30%</u>	_____	x2 = <u>0.6</u>	
FAC species <u>30%</u>	_____	x3 = <u>0.9</u>	
FACU species <u>110%</u>	_____	x4 = <u>4.4</u>	
UPL species _____	_____	x5 = _____	
Column Totals: <u>1.70</u> (A)		<u>5.9</u> (B)	
Prevalence Index = B/A = <u>3.47</u>			

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

____ 2-Dominance Test is >50%

____ 3-Prevalence Index is ≤3.0¹

____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: November 4, 2019

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Zachary Root
Metric Environmental, LLC
6971 Hillsdale Court
Indianapolis, IN 46250
317-350-4896
zacharyr@metricenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. No. 1700173) includes the replacement of the existing bridge (INDOT Bridge No. 060-88-03069) with a three-spans bridge (58'-0", 75'-0", 58'-0") with a total structure length of 192.6 feet, a clear roadway width of 32 feet, and skewed 15 degrees left. The approach roadway will have guardrails and concrete bridge railing transition. Channel clearing will be required. SR 60 will be shifted approximately 18 feet upstream (east) from the existing alignment to accommodate existing bridge removal and maintenance of traffic.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: Washington County City: New Pekin

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

Lat.: 38.4994645°

Long.: -86.0131954°

Universal Transverse Mercator: 16 S 586048.90 E 4261695.37 N

Name of nearest waterbody: South Fork of the Blue River

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

Office (Desk) Determination. Date:

Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
South Fork of the Blue River	39.499421	-86.013179	265 LFT (0.256 ac)	Non-Wetland Waters	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 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 AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) 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) 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) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (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 PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives 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 AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, 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. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
 - Map: _____ Dated 8/5/2019
 - Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____
- Data sheets prepared by the Corps: _____
- Corps navigable waters' study: _____
- U.S. Geological Survey Hydrologic Atlas: _____
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Palmyra, IN 7.5 min, 1980


- Natural Resources Conservation Service Soil Survey. Citation: SSURGO Washington County

- National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/
- State/local wetland inventory map(s): _____
- FEMA/FIRM maps: https://msc.fema.gov

- 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Indiana Aerial Photograph, 2016
or Other (Name & Date): Site Photographs, 8/7/2019
- 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 staff member
completing PJD

 11/4/2019

Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Susan Castle

Subject: FW: APPROVED: WOTUS Report, Des 1700173 SR 60 Bridge Rplcmnt., 0.42 miles W of SR 335 over S Fork Blue River, Washington Co

Attachments: Permit Determination Questionnaire V4 11_7_2019.docx; Extract from 11-12-2019 Approved WOTUS Rpt 1700173.pdf

From: Sperry, Steve

Sent: Tuesday, November 12, 2019 10:31 AM

To: Zachary Root <zacharyr@metricenv.com>; Williamson, Brad <BWILLIAMSON@indot.IN.gov>

Cc: Rehder, Crystal <CRehder@indot.IN.gov>; Alex Gray <alexg@metricenv.com>; mkeusch@hntb.com

Subject: APPROVED: WOTUS Report, Des 1700173 SR 60 Bridge Rplcmnt., 0.42 miles W of SR 335 over S Fork Blue River, Washington Co

Zachary,

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

Brad

An extract from the 11/4/2019 WOTUS report is attached. It was approved by this Office on 11/12/2019. The full report can be found in ProjectWise through this link: [Approved WOTUS Rpt 1700173 SR60 SF Blue R Washington Co 11-12-2019.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.

This email serves as notice that the Project Designer is to complete the standard Permit Determination Questionnaire (refer to attached) as soon as all required information is obtained. It will need to be submitted to Steve Sperry so that a permit determination can be made.

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

Multidistrict East Team

Division of Environmental Services

IGCN Room 642

100 N. Senate Ave.

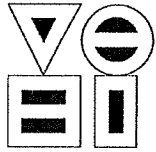
Indianapolis, IN 46204

Office: (317) 232-5206

Email: ssperry@indot.in.gov



APPENDIX G: Public Involvement



VS ENGINEERING, INC.

Civil • Structural • Transportation • Environmental

NOTICE OF SURVEY

March 19, 2015

RE: S.R. 60 Bridge Replacement
Washington County, Indiana

Dear Property Owner:

Our information indicates that you own or occupy property near this proposed highway project. Our employees will be doing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by law by Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage we generally do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as trees, buildings, fences and drives, and obtaining ground elevations. The survey work may also include the identification and mapping of wetlands, archaeological investigations (which may include excavation of small shovel test probes), and various other environmental studies. The survey is needed for the proper planning and design of this highway project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact our field crew or contact me at the phone number or address shown herein.

Sincerely,

VS Engineering, Inc.
Andrew B. McClelland, P.S.
Project Surveyor
317-293-3542, x-178

Des. No. 1700173

APPENDIX H:
Air Quality



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

Indiana Division

July 31, 2017

575 N. Pennsylvania St, Room 254
Indianapolis, IN 46204
317-226-7475
317-226-7341

In Reply Refer To:
HDA-IN

Mr. Trevor Mills
Deputy Commissioner
Engineering and Asset Management
100 North Senate Avenue
Indianapolis, IN 46204

Dear Mr. Mills:

We have completed our review of INDOT's Amendment #18-02 to the FY 2018-2021 Indiana Statewide Transportation Improvement Program (STIP) dated July 26, 2017. FHWA approves it for inclusion into the STIP.

Should you have any questions regarding this approval please contact Joyce Newland at 317-226-5353 or e-mail at joyce.newland@dot.gov.

Sincerely,

**JOYCE E
NEWLAND**

Digitally signed by JOYCE E
NEWLAND
DN: c=US, o=U.S. Government,
ou=DOT FHWAIndianapolisIN,
ou=FWHA FHWAIndianapolisIN,
cn=JOYCE E NEWLAND
Date: 2017.07.31 11:19:18 -04'00'

For: Mayela Sosa
Division Administrator

Enclosure

ecc: Michael McNeil, INDOT

Indiana Department of Transportation (INDOT)
 State Preservation and Local Initiated Projects FY 2018 - 2021

SPONSOR	CONTRACT # / ACT # / DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Washington County	1553084	A 02 SR 39		Bridge Deck Overlay	0.08 mile S of SR 256 over Cammie-Thomas Ditch	Seymour	0	0 STIP	\$693,109.00	Bridge Construction	CN	\$554,487.20	\$138,621.80			\$693,109.00	
					Comments: Amend CN phase in FY 2020 to the current STIP. No MPO.												
	34558 / 1173265	A 02 IR 1006		Bridge Rehabilitation Or Repair	Bridge 105 on Beaks Mill Road in Washington County	Seymour	0	0 STIP	\$440,000.00	Local Bridge Program	CN	-\$354,913.40	\$0.00	(\$706,400.00)	\$351,466.60		
					Comments: Amend CN funding from FY18. Add CN funding to FY19. This is a rural local project. No MPO.												
	40433 / 1700168	A 02 SR 56		Br Repl. Conc. Beam Construction	00.20 mile W of SR 135 at Brock Creek	Seymour	0	0 STIP	\$1,636,375.00	Bridge Consulting	PE	\$160,000.00	\$40,000.00	\$200,000.00			
					Comments: Amend PE phase in FY 2018 to current STIP. No MPO.												
	40453 / 1700173	A 02 SR 60		Br Repl. Comp. Cont. Conc. Construction	00.42 miles W of SR 335 over S Fork Blue River	Seymour	0	0 STIP	\$3,260,138.00	Bridge Consulting	PE	\$200,000.00	\$50,000.00	\$250,000.00			
					Comments: Amend PE phase in FY 2018 to current STIP. No MPO.												
	40488 / 1701503	A 02 SR 256		Replace Superstructure	01.20 mile E of SR 39 at Muscatuck River Overflow	Seymour	0	0 STIP	\$1,329,762.00	Bridge Consulting	PE	\$140,000.00	\$35,000.00	\$175,000.00			
					Comments: Amend PE phase in FY 2018 to the current STIP. No MPO.												

Washington County Total
 Federal: \$699,573.80

Match: \$174,893.45 2018: -\$258,000.00 2019: \$439,358.25 2020: \$693,109.00 2021:

*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.

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
Washington County												
Washington County	34558 / 1173265	Init.	IR 1006	Bridge Rehabilitation Or Repair	Bridge 105 on Becks Mill Road over Mill Creek in Washington County	Seymour	0	STPBG		Local Bridge Program	CN	\$1,016,400.00
Washington County												
Washington County	34558 / 1173265	M 02	IR 1006	Bridge Rehabilitation Or Repair	Bridge 105 on Becks Mill Road over Mill Creek in Washington County	Seymour	0	STBG	\$1,143,721.92	Local Bridge Program	CN	\$120,000.00
Washington County												
Comments: Adding CN funds in the amount of \$150,000 for FY 2020. No MPO.												
Washington County	38186 / 1500216	Init.	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Seymour	0	STPBG		Local Bridge Program	PE	\$118,439.20
Washington County												
Indiana Department of Transportation	38602 / 1401870	Init.	SR 160	Small Structure Replacement	Over Unnamed Tributary of Springle Creek, 8.0 miles W of US 31	Seymour	0	STPBG		Bridge Construction	CN	\$159,373.60
Indiana Department of Transportation	39905 / 1600873	Init.	SR 56	Pavement Replacement, Small Town	0.09 miles E of W Jct of SR 60 to .08 miles E of SR 135 (High St)	Seymour	1.45	STPBG		Road ROW	RW	\$569,640.80
Washington County												
Comments: Adding CN funds in the amount of \$5,286,760.00												
Washington County												
Comments: Adding CN funds in the amount of \$280,000.00												
Washington County												
Comments: Adding CN funds in the amount of \$1,137,891.20												
Indiana Department of Transportation	40057 / 1601989	Init.	SR 135	Bridge Painting	3.76 miles S of SR 235 over Muscatatuck River	Seymour	0	STPBG		Bridge Consulting	PE	\$92,000.00
Washington County												
Indiana Department of Transportation	40410 / 1700009	Init.	SR 56	Small Structure Pipe Lining	5.46 miles E of SR 135	Seymour	0	STPBG		Bridge ROW	RW	\$24,000.00

APPENDIX I:

Additional Studies

United States Department of the Interior
National Park Service
Land & Water Conservation Fund

Detailed Listing of Grants Grouped by County

Today's Date: 12/6/2017

Page: 41

INDIANA - 18

Grant ID & Element	Type	Grant Element Title	Grant Sponsor	Amount	Status	Date Approved	Exp. Date	Cong. District
WARRICK								
82 - XXX	C	NEWBURGH PARK AND SWIMMING POOL	NEWBURGH PARK BOARD	\$111,076.39	C	3/24/1971	6/30/1973	8
383 - XXX	D	AMAX ATHLETIC FIELD	NEWBURGH PARK BOARD	\$50,000.00	C	2/13/1981	12/31/1985	8

WARRICK County Total:

County Count: 2

WASHINGTON

186 - XXX	C	CHRISTIAN CHURCH PLAYGROUND	SALEM PARK BOARD	\$10,728.00	C	1/16/1975	12/31/1977	9
316 - XXX	D	D/SALEM COMMUNITY PARK	SALEM PARK BOARD	\$34,206.83	C	7/6/1978	12/31/1980	9
536 - XXX	D	DELANEY CREEK PARK IMPROVEMENTS	WASHINGTON COUNTY PARK BOARD	\$120,934.00	C	3/19/2003	12/31/2008	9

WASHINGTON County Total:

County Count: 3

WAYNE

325 - XXX	A	WHITEWATER VALLEY GORGE PARK	RICHMOND PARK BOARD	\$137,736.00	C	12/15/1978	12/31/1981	2
356 - XXX	D	GLEN MILLER PARK LAKE	RICHMOND PARK BOARD	\$84,086.98	C	4/13/1979	12/31/1983	2
462 - XXX	D	SPRINGWOOD LAKE PARK RENOVATION	RICHMOND PARK BOARD	\$100,000.00	C	2/11/1988	12/31/1992	2

WAYNE County Total:

County Count: 3



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.

	Washington County, Indiana		Census Tract 9677, Washington County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	27,807	*****	6,743	+/-406
Not Hispanic or Latino:	27,444	*****	6,541	+/-381
White alone	26,948	+/-22	6,471	+/-389
Black or African American alone	25	+/-25	0	+/-16
American Indian and Alaska Native alone	89	+/-110	14	+/-25
Asian alone	48	+/-36	0	+/-16
Native Hawaiian and Other Pacific Islander alone	0	+/-21	0	+/-16
Some other race alone	17	+/-22	3	+/-12
Two or more races:	317	+/-104	53	+/-63
Two races including Some other race	0	+/-21	0	+/-16
Two races excluding Some other race, and three or more races	317	+/-104	53	+/-63
Hispanic or Latino:	363	*****	202	+/-99
White alone	358	+/-10	202	+/-99
Black or African American alone	0	+/-21	0	+/-16
American Indian and Alaska Native alone	0	+/-21	0	+/-16
Asian alone	0	+/-21	0	+/-16
Native Hawaiian and Other Pacific Islander alone	0	+/-21	0	+/-16
Some other race alone	5	+/-10	0	+/-16
Two or more races:	0	+/-21	0	+/-16
Two races including Some other race	0	+/-21	0	+/-16
Two races excluding Some other race, and three or more races	0	+/-21	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.



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.

	Washington County, Indiana		Census Tract 9677, Washington County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	27,478	+/-119	6,732	+/-404
Income in the past 12 months below poverty level:	3,644	+/-665	846	+/-297
Male:	1,623	+/-327	363	+/-163
Under 5 years	188	+/-73	40	+/-36
5 years	60	+/-59	39	+/-57
6 to 11 years	192	+/-77	16	+/-26
12 to 14 years	131	+/-81	3	+/-5
15 years	43	+/-53	0	+/-16
16 and 17 years	36	+/-30	0	+/-16
18 to 24 years	157	+/-65	19	+/-23
25 to 34 years	168	+/-76	25	+/-24
35 to 44 years	120	+/-81	28	+/-40
45 to 54 years	207	+/-85	84	+/-69
55 to 64 years	205	+/-96	83	+/-64
65 to 74 years	81	+/-41	24	+/-26
75 years and over	35	+/-29	2	+/-4
Female:	2,021	+/-398	483	+/-179
Under 5 years	152	+/-72	23	+/-28
5 years	6	+/-11	0	+/-16
6 to 11 years	160	+/-69	27	+/-24
12 to 14 years	89	+/-60	3	+/-6
15 years	37	+/-44	37	+/-44
16 and 17 years	51	+/-38	8	+/-12
18 to 24 years	298	+/-128	70	+/-56
25 to 34 years	236	+/-96	65	+/-48
35 to 44 years	299	+/-101	30	+/-33
45 to 54 years	211	+/-76	65	+/-41
55 to 64 years	208	+/-87	97	+/-73
65 to 74 years	149	+/-60	45	+/-36
75 years and over	125	+/-53	13	+/-16
Income in the past 12 months at or above poverty level:	23,834	+/-694	5,886	+/-416
Male:	11,982	+/-376	3,106	+/-273
Under 5 years	589	+/-74	156	+/-90

	Washington County, Indiana		Census Tract 9677, Washington County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
5 years	53	+/-39	8	+/-10
6 to 11 years	927	+/-149	248	+/-81
12 to 14 years	456	+/-118	39	+/-39
15 years	242	+/-94	16	+/-15
16 and 17 years	285	+/-91	27	+/-25
18 to 24 years	1,008	+/-68	339	+/-90
25 to 34 years	1,348	+/-83	202	+/-82
35 to 44 years	1,649	+/-96	556	+/-145
45 to 54 years	1,839	+/-110	484	+/-109
55 to 64 years	1,752	+/-112	626	+/-118
65 to 74 years	1,150	+/-43	319	+/-74
75 years and over	684	+/-55	86	+/-40
Female:	11,852	+/-390	2,780	+/-291
Under 5 years	632	+/-75	207	+/-90
5 years	154	+/-76	61	+/-53
6 to 11 years	736	+/-126	126	+/-76
12 to 14 years	719	+/-126	163	+/-83
15 years	211	+/-83	33	+/-35
16 and 17 years	315	+/-74	63	+/-43
18 to 24 years	725	+/-129	110	+/-73
25 to 34 years	1,261	+/-97	254	+/-87
35 to 44 years	1,382	+/-104	356	+/-114
45 to 54 years	1,831	+/-75	543	+/-130
55 to 64 years	1,830	+/-74	423	+/-107
65 to 74 years	1,244	+/-74	286	+/-78
75 years and over	812	+/-72	155	+/-64

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.

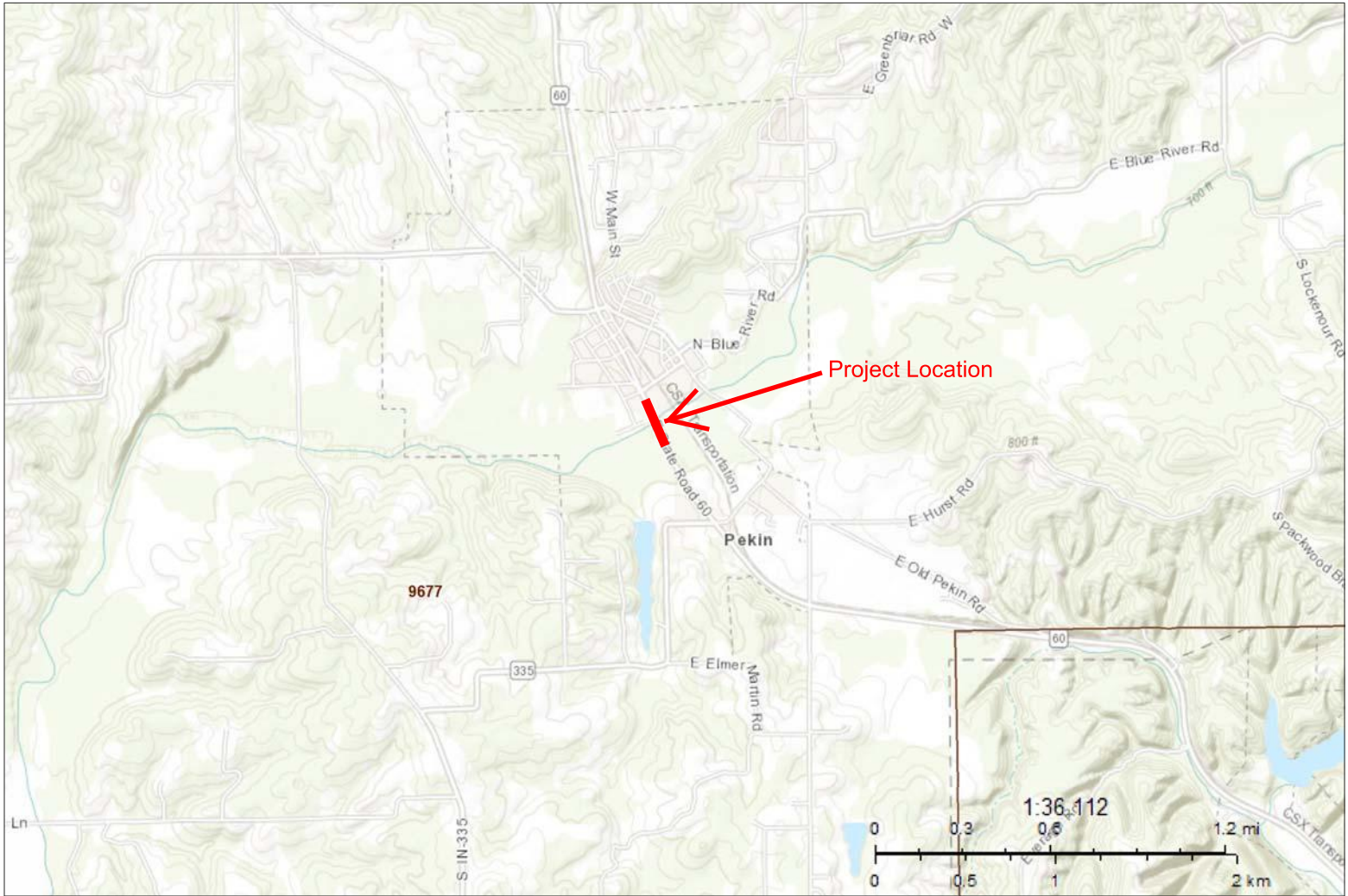
While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ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



Legend

Your Selections

No Legend

Selection Results

No Legend

2018 Boundaries

- County Washington
- Census Tract 9677

