FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	State Road (SR) 62 / Spencer County
Designation Number(s):	1800914
Project Description/Termini:	Rehabilitation of Bridge No. 62-74-06164B (National Bridge Inventory (NBI) No. 22130) Carrying SR 62 Over Buckhorn Creek / The project termini for construction extend approximately 105 feet north and south of the center point of the bridge along SR 62. The study limit termini for right-of-way acquisition extend approximately 600 feet north and 540 feet south of the center point of the bridge.

X	**Categorical Exclusion, Level 2** – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
	Categorical Exclusion, Level 4 – Required Signatories: INDOT ESD and FHWA
	Environmental Assessment (EA) – Required Signatories: INDOT ESD and FHWA
	Additional Investigation (AI) – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

RF 1/13/2022

INDOT DE Initials and Date

INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer: Ryan L. Scott (Butler, Fairman and Seufert, Inc.)

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.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?		X
If No, then:		
Opportunity for a Public Hearing Required?	X	

**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.

Notice of Entry letters were mailed to potentially affected property owners near the project area on May 10, 2021, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix I, I1.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Public Involvement Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

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: Vincennes

Local Name of the Facility: SR 62 Bridge over Buckhorn Creek

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

*If other is selected, please indentify the funding source: _____

PURPOSE AND NEED:

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

According to the May 17, 2021 Bridge Inspection Report (Appendix H, H2-H25) for Bridge No. 62-74-06164B (National Bridge Inventory (NBI) No. 022130) carrying SR 62 over Buckhorn Creek 1.4 miles southwest of SR 162 in Spencer County, the bridge deck and wearing surface are deteriorated and have been given ratings of 5 out of 10 (fair condition). In addition, moderate bank erosion at the structure was noted in the report.

The purpose of this project is to improve the bridge deck and wearing surface of Bridge No. 62-74-06164B to ratings of 8 out of 10 (good condition) or higher, and to enhance the level of scour protection provided for the bridge abutments.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Spencer Municipality: N/A

Limits of Proposed Work: The project termini for construction extend approximately 105 feet north and south of the center point of the bridge along SR 62. The study limit termini for right-of-way acquisition extend approximately 600 feet north and 540 feet south of the center point of the bridge.

Total Work Length: 0.04 Mile(s) Total Work Area: _____ Acre(s)

	Yes[1]	No
Is an Interstate Access Document (IAD)[1] required?		X
If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?	Date:	

[1]*If an IAD is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IAD.*

Describe location of project including township, range, city, county, roads, etc. Existing conditions should include current conditions, current deficiencies, roadway description, surrounding features, etc. Preferred alternative should include the scope of work, anticipated impacts, and how the project will meet the Purpose and Need. Logical termini and independent utility also need discussed.

The project is located on SR 62 approximately 1.4 miles southwest of SR 162. The project is also located in Section 11, Township 5 South, Range 6 West on the U.S. Geological Survey (USGS) Chrisney, Indiana Quadrangle, Jackson Township, Spencer County, Indiana (Appendix B, B3).

Bridge No. 62-74-06164B carrying SR 62 (also mapped as US 231) over Buckhorn Creek was constructed in 1922, with a superstructure replacement and widening project in 1961, and a bridge maintenance and repair project completed in 1980. The bridge is not considered eligible for the National Register of Historic Places (NRHP). Bridge No. 62-74-06164B consists of a single-span pre-stressed concrete box beam with a span length of 56.00 feet and an overall length of 59.00 feet. The bridge has an out-to-out width of 36.50 feet and a clear roadway width of 34.50 feet, consisting of two (2) 12.50-foot-wide lanes bordered by 4.75-foot-wide shoulders. Presently, there is minor section loss exhibited by longitudinal cracking, intermittent transverse cracking, surface delamination mainly at deck ends, and some surface patching at the north end of the bridge deck and damage to the drain on the west coping. According to

the most recent INDOT inspection report, dated May 17, 2021, the structure was given a sufficiency rating of 94.7 out of 100, indicating good condition, while the deck and wearing surface were given ratings of 5 (out of 10), indicating fair condition.

The functional classification of SR 62 is State Collector. The approaches to Bridge No. 62-74-06164B have a clear roadway width of 28.0 feet consisting of two, 12.0-foot wide through lanes (one in each direction) bordered by 2.0-foot wide, paved shoulders. The land use surrounding the project is primarily agricultural with one forested area located in the southeast quadrant of the bridge (see Appendix B, B4 – B12 for photograph orientation aerial map and photograph sheets).

The project will rehabilitate the bridge by performing concrete patching on various locations on the structure including around the drain holes on the west coping, removal of portions of the bridge deck and perform partial depth patching, mill existing bridge deck 0.25-inch, apply 1.75-inch latex modified deck overlay, and wedge and level approach grades. In addition, it is proposed to install Class 1 riprap over geotextile fabric in front of the existing abutments and wingwalls to protect the bridge footings from scour (see plan sheets in Appendix B, B13 – B16). The riprap will extend towards the stream channel from the face of the abutments to a width of 10.00 feet and will be countersunk 2.00 feet below existing grade to match the surrounding surface elevations. Right-of-way (ROW) will be purchased for access to the bridge substructure and future maintenance/repair to the guardrail.

The proposed maintenance of traffic (MOT) is to detour traffic for approximately 30 days. The detour will utilize SR 62, SR 161, SR 68, and US 231 adding approximately 15.3-miles to a through trip (see Appendix B, B14 for the MOT plan). No properties will become inaccessible because of the proposed MOT. The estimated start of construction is Spring 2022.

This alternative meets the purpose and need of this project, which is to address the degraded condition of Bridge No. 062-74-06164B by improving the condition of the bridge deck and wearing surface and protecting the stream channel from further deterioration.

This project provides independent utility by meeting the purpose and need of the project without relying on other projects to improve the condition of Bridge No. 062-74-06164B. The construction termini for the project are considered logical as they only extend north and south along SR 62 far enough to tie the existing approaches into the proposed bridge improvements. The study limit termini are considered logical as they only extend north and south along SR 62 far enough to encompass the existing guardrail areas.

OTHER ALTERNATIVES CONSIDERED:

Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.

Do Nothing Alternative:

This alternative proposes that no bridge construction occur. This alternative would eliminate construction costs and environmental impacts; however, it would not meet the purpose and need for the project, which is to correct the deteriorating condition of Bridge No. 062-74-06164B for the use of the traveling public. Therefore, this alternative was removed from further consideration.

The No Build 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	X
It would result in serious impacts to the motoring public and general welfare of the economy.	
Other (Describe):	

ROADWAY CHARACTER:

If the proposed action includes multiple roadways, complete and duplicate for each roadway.

Name of Roadway: SR 62
Functional Classification: State Collector
Current ADT: 1,661 VPD (2020) Design Year ADT: 1,661 VPD (2040)
Design Hour Volume (DHV): 160 Truck Percentage (%): 14.75
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2 @ 12.0 ft.		2 @ 12.0 ft.	
Type of Lanes:	Through		Through	
Pavement Width:	28.0	ft.	28.0	ft.
Shoulder Width:	2.0	ft.	2.0	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:		Urban		Suburban	X	Rural
Topography:	X	Level		Rolling		Hilly

BRIDGES AND/OR SMALL STRUCTURE(S):

If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.

Structure/NBI Number(s): 62-74-06164B / 22130 Sufficiency Rating: 94.7, 05/17/2021 Bridge Inspection Report
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	Adjacent Prestressed Concrete Box Beam		Adjacent Prestressed Concrete Box Beam	
Number of Spans:	1 @ 56.00 ft.		1 @ 56.00 ft.	
Weight Restrictions:	HS 20	ton	HS 20	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	34.50	ft.	34.50	ft.
Outside to Outside Width:	36.50	ft.	36.50	ft.
Shoulder Width:	4.75	ft.	4.75	ft.

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

Bridge No. 62-74-06164B is a single span concrete box beam bridge that will be rehabilitated by this project. The bridge has an approximate out-to-out length of 59.00 feet and carries one lane of traffic in each direction. The bridge is not considered eligible for the National Register. This project will perform concrete patching on various locations on the structure including around the drain holes on the west coping, remove portions of the bridge deck and perform partial depth patching, mill existing bridge deck 0.25-inch, apply 1.75-inch latex modified deck overlay, and wedge and level approach grades. In addition, it is proposed to install Class 1 riprap over geotextile fabric in front of the existing abutments and wingwalls to protect the bridge footings from scour (see Appendix B, B13 – B16 for plan sheets). Temporary cofferdams are anticipated to be required to install the riprap. The use of temporary causeways will not be necessary. A total of approximately 70 linear feet of permanent and temporary stream impacts are anticipated to occur as a result of the project.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

Discuss closures and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Any local concerns about access and traffic flow should be detailed as well.

The MOT for the project will require the bridge to be closed for construction. A detour will be established, utilizing SR 62, SR 161, SR 68 and US 231. The total detour length is approximately 22.5 miles, with the added travel length being 15.3 miles (see Appendix B, B14). Bridge construction is expected to last approximately 30 days.

The closure 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: $ 57,500 (2020) Right-of-Way: $ 25,000 (2021) Construction: $ 506,000 (2022)

Anticipated Start Date of Construction: Fall 2022

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0.000	0.000
Commercial	0.000	0.000
Agricultural	0.520	0.000
Forest	0.137	0.000
Wetlands	0.000	0.000
Other:	0.000	0.000
TOTAL	0.657	0.000

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, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.

Approximately 0.657 acre of permanent right-of-way consisting of 0.520 acre of agricultural land, and 0.137 acre of forested land will be acquired. Temporary right-of-way acquisition is not necessary.

The existing typical and maximum right-of-way width along SR 62 is 66 feet (33 feet either side of the roadway centerline). The proposed typical and maximum right-of-way width along SR 62 is 100 feet (50 feet either side of the roadway centerline).

If the scope of work or permanent or temporary right-of-way 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 - EARLY COORDINATION:

List the date(s) coordination was sent and all resource 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.

Early coordination letters (ECLs) were sent on July 1, 2020 (Appendix C, C1 – C3). Please note, a second round of the ECL was sent to the Natural Resources Conservation Service (on October 5, 2021) due to the right-of-way acquisition proposed after the initial ECLs were sent. Also, the North Spencer School Corporation was sent an ECL on December 6, 2021 due to the proposed bridge closure during construction. No additional coordination with the other agencies was necessary since the scope of the project and environmental impacts remain consistent with the original ECL submittal.

Agency	Date Sent	Date Response Received	Appendix
FHWA Indiana Office	July 1, 2020	No response	N/A
INDOT Vincennes District	July 1, 2020	July 2, 2020	C15 – C16
IDNR Environmental Unit	July 1, 2020	July 31, 2020	C7 – C9
USFWS Bloomington Field Office	July 1, 2020	July 21, 2020	C4 – C6
HUD Chicago Regional Office	July 1, 2020	No response	N/A
National Park Service	July 1, 2020	No response	N/A
Natural Resources Conservation Service	October 5, 2021	November 1, 2021	C10 – C11
USACE Louisville District Office	July 1, 2020	No response	N/A
Spencer County Floodplain Administrator	July 1, 2020	No response	N/A
Spencer County Surveyor	July 1, 2020	No response	N/A
Town of Gentryville	July 1, 2020	July 15, 2020	C16
Indiana Geological and Water Survey	August 20, 2020	August 20, 2020	C12 -C14
IDNR Division of Oil and Gas	August 21, 2020	October 19, 2020	C26 – C27
IDEM Automated Roadway Construction Letter	August 21, 2020	August 21, 2020	C18 – C25
North Spencer County School Corporation	December 6, 2021	No response	N/A

The INDOT Vincennes District response on July 2, 2020 (Appendix C, C15-16) noted that the ECL for IDNR is for the Division of Fish and Wildlife, not the Division of Water. The same response also noted that IDEM needs to be included on the ECL recipients list, even if their response is automated.

The INDOT Vincennes District also provided a response on July 16, 2020 to questions submitted by the Town of Gentryville on July 15, 2020 (Appendix C, C17) regarding guardrail work; INDOT noted that no guardrail work is associated with this project, and no excavation will occur in the guardrail areas.

All applicable recommendations are included in the Environmental Commitments section of this CE document.

SECTION B – ECOLOGICAL RESOURCES:

	Presence	Impacts	
		Yes	No
Streams, Rivers, Watercourses & Other Jurisdictional Features	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			

Total stream(s) in project area: 1,330 Linear feet Total impacted stream(s): 70 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Buckhorn Creek	R2UBH	100	70	Spanned by SR 62; flows west through the project area; this feature is a likely Water of the U.S.
UNT 1 to Buckhorn Creek	R4SBC	30	0	Located in the southeast quadrant of the bridge crossing; flows northwest to Buckhorn Creek; this feature is a likely Water of the U.S.
UNT 2 to Buckhorn Creek	R4SBC	600	0	Located in the northeast quadrant of the bridge crossing; flows south to Buckhorn Creek; this feature is a likely Water of the U.S.
UNT 3 to Buckhorn Creek	R4SBC	600	0	Located in the southwest quadrant of the bridge crossing; flows north to Buckhorn Creek; this feature is a likely Water of the U.S.

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, aerial map of the project area, and the water resources map in the RFI report (Appendix E), there are twelve (12) streams, rivers, watercourses or other jurisdictional features within the 0.5 mile search radius. That number was confirmed by the site visits on February 6, 2020, June 1, 2020, and June 3, 2021 by BF&S. There are four (4) streams, rivers, watercourses or other jurisdictional features present within or adjacent to the project area.

According to the database administered by the Bureau of Land Management, National Park Service (NPS), U.S. Fish and Wildlife Service (USFWS), and the U.S. Forest Service, (https://www.rivers.gov/indiana.php) there are no streams in this area of Spencer County that are on the lists of Wild, Scenic, or Recreational Rivers. In addition, according to the database administered by NPS (https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm), there are no streams in this area of Spencer County that are on the Nationwide Rivers Inventory which are free-flowing rivers that possess one or more "outstandingly remarkable" natural or cultural values judged to be more than local or regional significance. Further, it should be noted that Buckhorn Creek is not listed on the Outstanding Rivers List for Indiana of the Navigable Waterways for Indiana. Therefore, no impacts are expected.

The primary stream is Buckhorn Creek, which flows northwest beneath Bridge No. 62-74-06164B. Buckhorn Creek is a perennial stream that is classified as a Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBH) waterway. The other streams are three (3) unnamed tributaries (UNT) to Buckhorn Creek and are in the southeast, northeast, and southwest quadrants of Bridge No. 62-74-06164B. All of these tributaries are intermittent streams that are classified as Riverine, Stream Bed, Intermittent (R4SBC) waterways. UNT 1 flows northwest and connects to Buckhorn Creek in the southeast quadrant. UNT 2 flows southwest and connects to Buckhorn Creek in the northeast quadrant. UNT 3 flows northeast and connects to Buckhorn Creek in the southwest quadrant.

A total of 70 linear feet of permanent and temporary stream impacts are anticipated to occur to Buckhorn Creek below the ordinary high water mark (35.0 feet wide and 2.0 feet deep) for the installation of temporary cofferdams and riprap placement. Impacts to Buckhorn Creek are unavoidable in order to meet the purpose and need of the project; however, the project design has been minimized to the greatest extent possible to protect the bridge from scour. No permanent

impacts are anticipated to occur to the three (3) unnamed tributaries to Buckhorn Creek. Section 401/404 permits will likely be required. No stream mitigation is anticipated for this project.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on October 1, 2021. Please refer to Appendix F, F3 – F62 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that four (4) waterways, Buckhorn Creek and three (3) unnamed tributaries to Buckhorn Creek, are within the right-of-way and exhibit defined bed and bank features, and ordinary high-water mark (OHWM) characteristics that likely make them Waters of the U.S. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Early coordination letters were sent to the USACE, the Indiana Department of Environmental Management (IDEM), the USFWS and the Indiana Department of Natural Resources (IDNR) on July 1, 2020 (Appendix C, C1 – C3).

The USACE did not respond to the early coordination letter.

IDEM was contacted via their online roadway project forum. The standard automatic response letter was generated (Appendix C, C18 – C25). IDEM did not respond with any specific recommendations regarding the project.

The USFWS responded on July 21, 2020, and provided standard recommendations for minimizing impacts to waterways (Appendix C, C4-C6), including the recommendations that stream crossings should not impair wildlife passage, minimize vegetation clearing to within the project limits, minimize the extent of hard armor bank protection, and to utilize appropriate erosion control measures during construction.

The IDNR responded on July 31, 2020, and provided recommendations for minimizing impacts to waterways, including recommendations for not creating wildlife passage conditions under the bridge that are less favorable than current conditions (Appendix C, C7-C9). The project will not diminish wildlife passage opportunities under the bridge since the proposed riprap areas will be flat and countersunk to match existing grades upstream and downstream of the bridge on both stream banks.

All applicable recommendations are included in the Environmental Commitments section of this CE document.

Open Water Feature(s)	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes			
Farm Ponds			
Retention/Detention Basin			
Storm Water Management Facilities			
Other: _____			

Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area, and the RFI report (Appendix E) there are eight (8) open water feature(s) within the 0.5-mile search radius. That number was confirmed by site visits on February 6, 2020, June 1, 2020, and June 3, 2021 by BF&S. No open water feature(s) 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 by INDOT Ecology and Waterway Permitting Office on October 1, 2021. Please refer to Appendix F, F3 – F62 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that no open water features are located within or adjacent to the project area. The USACE makes all final determinations regarding jurisdiction.

Early coordination letters were sent to the USACE, USFWS and IDNR on July 1, 2020 (Appendix C, C1 – C3).

The USACE did not respond to the early coordination letter.

IDEM was contacted via their online roadway project forum. The standard automatic response letter was generated (Appendix C, C18 – C25). IDEM did not respond with any specific recommendations regarding the project.

The USFWS responded to Early Coordination on July 21, 2020 (Appendix C, C4 – C6) and provided no comments regarding potential impacts to other surface waters.

The IDNR responded to Early Coordination in a letter dated July 31, 2020 (Appendix C, C7 – C9). In their response, they did not provide any information about additional water resources that may be present in the area.

All applicable recommendations are included in the Environmental Commitments section of this CE document.

	Presence	Impacts Yes	Impacts No
Wetlands	X		X

Total wetland area: 0.1775 Acre(s) Total wetland area impacted: 0.0000 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 (i.e. location, likely Water of the US, appendix reference)
1	PEMC	0.0075	0.0000	This feature is likely a Water of the U.S.
2	PFO1A	0.1700	0.0000	This feature is likely a Water of the U.S.

Wetlands (*Mark all that apply*)	Documentation	ESD Approval Dates
Wetland Determination		
Wetland Delineation	X	October 1, 2021
USACE Isolated Waters Determination		

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.	

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on a review of the National Wetlands Inventory (NWI) online mapper (https://www.fws.gov/wetlands/data/Mapper.html) (Appendix F, F20), site visits on February 6, 2020, June 1, 2020 and June 3, 2021 by BF&S, the USGS topographic map (Appendix B, B3), and the RFI report (Appendix E) thirteen (13) wetlands are located within the 0.5 mile search radius. A site visit was conducted on June 1, 2020 and June 3, 2021 by BF&S and two (2) wetlands are present within or adjacent to the project area. However, no construction is proposed near the wetlands, therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on October 1, 2021. Please refer to Appendix F, F3 – F62 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that one (1) emergent wetland (Wetland 1), classified as a Palustrine, Emergent, Seasonally Flooded (PEMC) wetland, is located within the confines of the roadside ditch located in the southeast quadrant of Bridge No. 62-74-06164B. This wetland is outside of the project limits and will not be impacted. It was also determined that one (1) forested wetland (Wetland 2), classified as a Palustrine, Forested, Broad Leaved Deciduous, Temporarily Flooded (PFO1A) wetland, is located within the larger forested area in the southeast quadrant

of Bridge No. 62-74-06164B. This wetland is also outside the project limits and will not be impacted. The USACE makes all final determinations regarding jurisdiction.

Early coordination letters were sent to the USACE, IDEM, USFWS and IDNR on July 1, 2020.

The USACE did not respond to the early coordination letter.

IDEM was contacted via their online roadway project forum. The standard automatic response letter was generated (Appendix C, C18 – C25). IDEM did not respond with any specific recommendations regarding the project.

The USFWS responded to Early Coordination on July 21, 2020 (Appendix C, C4 – C6). In their response, they did not provide any information about wetlands that may be present in the area.

The IDNR responded to Early Coordination in a letter dated July 31, 2020 (Appendix C, C7 – C9). In their response, they did not provide any information about wetlands that may be present in the area.

All applicable agency recommendations are included in the Environmental Commitments section of this CE document.

	Presence	Impacts	
		Yes	No
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 0.03 Acre(s) Total tree clearing: 0.00 Acre(s)

Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc.) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measure to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, site visits on February 6, 2020, June 1, 2020 and June 3, 2021 by BF&S, and the aerial map of the project area (Appendix B, B4), there are two (2) types of terrestrial habitats: grass land/agricultural land and forest.

The land use within the project area is primarily agricultural, containing maintained grass land and row crop fields in the northeast, northwest, and southwest quadrants; however, the southeast quadrant is forested. The project will occur adjacent to both habitat types. The streambank in the southeast quadrant contains a few sparse trees comprised of silver maple (*Acer saccharinum*) and black walnut (*Juglans nigra*). The understory contains bush honeysuckle (*Lonicera maackii*) and reed canary grass (*Phalaris arundinacea*). The streambanks in the northeast, northwest, and southwest quadrants of Bridge 062-74-06164B were covered mostly in reed canary grass and field sow thistle (*Sonchus arvensis*), common milkweed (*Asclepias incarnata*), and field pennycress (*Thlapsi arvense*). Regarding fauna, tracks for the white-tail deer (*Odocoileus virginianus*) and raccoon (*Procyon lotor*) were observed in the silt beneath the bridge.

Approximately 0.03 acre of grassy slope habitat in the northeast quadrant of the bridge will be temporarily impacted by the project for equipment access; however, all tree clearing will be avoided. Further, the project will remain on the existing alignment and will not cause a fragmentation of habitat.

Early Coordination information was sent to the USACE, USFWS, and the IDNR on July 1, 2020 (Appendix C, C1 – C3).

The USFWS responded to Early Coordination on July 21, 2020 (Appendix C, C4 – C6). In their response, they did not provide any information about special habitats that may be present in the area. However, USFWS did provide standard recommendations for minimizing impacts to natural resources. In summary, the USFWS recommended that stream crossings should not impair wildlife passage, minimize vegetation clearing to within the project limits, minimize the extent of hard armor bank protection, and to utilize appropriate erosion control measures during construction.

The IDNR responded to Early Coordination in a letter dated July 31, 2020 (Appendix C, C7 – C9). In their response, they did not provide any information about any special habitat types that may be present in the area; however, IDNR did provide recommendations for minimizing impacts to fish, wildlife, and botanical resources. In summary, the IDNR recommended that stream crossings should not impair wildlife passage, only utilize riprap for bank protection from the toe-of-slope up to the OHWM, and to utilize appropriate erosion control measures during construction.

All applicable agency recommendations are included in the Environmental Commitments section this CE document.

County Spencer Route SR 62 Des. No. 1800914

Protected Species		
Federally Listed Bats	**Yes**	**No**
Information for Planning and Consultation (IPaC) determination key completed	X	
Section 7 informal consultation completed (IPaC cannot be completed)		X
Section 7 formal consultation Biological Assessment (BA) required		X

Determination Received for Listed Bats from USFWS: NE [ ] NLAA [X] LAA [ ]

Other Species not included in IPaC	**Yes**	**No**
Additional federal species found in project area (based on IPaC species list)	X	
State species (not bird) found in project area (based upon consultation with IDNR)		X

Migratory Birds	**Yes**	**No**
Known usage or presence of birds (i.e. nests)		X
State bird species based upon coordination with IDNR		X

Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.

Based on a desktop review and the RFI report (Appendix E), completed by BF&S on March 19, 2020, the IDNR Spencer County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter dated July 31, 2020 (Appendix C, C7), the Natural Heritage Program's Database has been checked and 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, C28 – C34). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). Other species were generated in the IPaC Species list along with the Indiana bat and northern long-eared bat. Refer to paragraph below.

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 Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An INDOT *Bridge Inspection Report* dated May 17, 2021 indicated no evidence of bats under the structure (Appendix H, H2-H4). An effect determination key was completed on March 5, 2020, and based on the responses provided, the project was found to "not likely to adversely affect" the Indiana bat and/or the NLEB (Appendix C, C35 – C45). INDOT reviewed and verified the effect finding on March 5, 2020 and requested USFWS's review of the finding (Appendix C, C46). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding.

Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this document.

The official species list generated from IPaC indicated that the gray bat (*Myotis grisescens*) may occur in the project area. As a result, early coordination was submitted to the USFWS on July 1, 2020. The USFWS responded to early coordination on July 21, 2020. In their response, the USFWS mention that the project is within the range of the federally endangered gray bat. However, they state that based on the project location and description, no impacts to the gray bat are anticipated (Appendix C, C4 – C6). No other species are present within the project area. The project qualifies for the USFWS Interim Policy.

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.

Geological and Mineral Resources	Yes	No
Project located within the Potential Karst Features Area of Indiana	X	
Karst features identified within or adjacent to the project area		X
Oil/gas or exploration/abandoned wells identified in the project area	X	

Date Karst Study/Report reviewed by INDOT EWPO (if applicable): _____

Discuss if project is located in Potential Karst Features Area of Indiana and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Describe if any impacts will occur to any karst features. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Karst MOU and coordinated and reviewed by INDOT EWPO)

Based on a desktop review, the project is located within the designated Indiana karst region as outlined in INDOT's most current *Protection of Karst Features during Project Development and Construction* procedure. According to the topo map of the project area (Appendix B, page 3), there are no karst features identified within or adjacent to the project area.

In the early coordination response August 20, 2020, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, C12). The IGWS report indicated there is a high liquefaction potential surrounding the project area. The IGWS report also indicated the area has a high potential for bedrock resources and a low potential for sand and gravel resources, and that there are active or abandoned petroleum exploration wells documented in the area. These features will not be affected because the project involves repairs of an existing bridge and because excavation for scour protection will be to a depth of 2.0 feet, which will not affect the resources. The response from IGWS has been communicated with the designer on August 20, 2020. No impacts are expected.

Although IGWS noted that there are active or abandoned petroleum excavation wells documented in the area, the IDNR Division of Oil and Gas indicated in an email response on October 19, 2020, that there are no oil and gas well concerns associated with the project (Appendix C, C26-C27).

SECTION C – OTHER RESOURCES

Drinking Water Resources	Presence	Impacts Yes	Impacts No
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)			
Urbanized Area Boundary			
Public Water System(s)	X		X

	Yes	No
Is the project located in the St. Joseph Sole Source Aquifer (SSA):		X
If Yes, is the FHWA/EPA SSA MOU Applicable?		
If Yes, is a Groundwater Assessment Required?		

Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.

The project is in Spencer 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, 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 August 21, 2020 by BF&S. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on August 21, 2020 by BF&S. 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 BF&S on August 21, 2020, and the RFI report (Appendix E) this project is not located in an Urban Area Boundary. No impacts are expected.

Based on a desktop review, site visits on February 6, 2020, June 1, 2020 and June 3, 2021 by BF&S, and the aerial map of the project area (Appendix B, B4) this project is located where there is a public water system. The public water system will not be affected because the project will be contained to the bridge deck (for mill and overlay, and patching) and the face of the wing walls and abutments (for riprap placement). Early coordination letters were sent of July 1, 2020. The Town of Gentryville Town Manager responded on July 15, 2020 stating that they have a water main laying beneath the west side guardrail (Appendix C, C17). Their concern is that any guardrail work or excavation on the west side of SR 62 may cause damage to the water main. INDOT responded to this concern July 16, 2020, stating that no guardrail will be removed and no excavation in this area will occur during this project (Appendix C, C17). There are no commitments or avoidance alternatives since no impacts are occurring as part of this project. Therefore, no impacts are expected.

	Presence	Impacts	
Floodplains		**Yes**	**No**
Project located within a regulated floodplain	X	X	
Longitudinal encroachment			
Transverse encroachment	X		X
Homes located in floodplain within 1000' up/downstream from project			

If applicable, indicate the Floodplain Level?

Level 1 [ ] Level 2 [ ] Level 3 [X] Level 4 [ ] Level 5 [ ]

Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

Based on a desktop review of the IDNR Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) by BF&S on March 23, 2020, and the RFI report (Appendix E), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F13). An early coordination letter was sent on July 1, 2020, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 3 per the current INDOT CE Manual, which states the modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial.

The IDNR Division of Water indicated in their letter dated July 31, 2020 that formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1 will be required unless the project qualifies for a bridge exemption or qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 1997 (Appendix C, C7). INDOT Environmental and Waterway Permitting Office (EWPO) provided a Permit Determination on October 5, 2021 concluding that an IDNR permit will not be required (Appendix F, F63).

	Presence	Impacts	
Farmland		**Yes**	**No**
Agricultural Lands	X	X	
Prime Farmland (per NRCS)	X	X	

Total Points (from Section VII of CPA-106/AD-1006*) 136

**If 160 or greater, see CE Manual for guidance.*

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Based on a desktop review, site visits on February 6, 2020, June 1, 2020 and June 3, 2021 by BF&S, and the aerial map of the project area (Appendix B, B4), 0.657 acre of farmland will be taken for permanent right-of-way under this contract. An early coordination letter was sent on October 5, 2021, to Natural Resources Conservation Services (NRCS). Coordination with NRCS resulted in a score of 136 on Form AD-1006 (Appendix C, C11). 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.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA	Category A Type 9, Category B Type 12	July 21, 2021	

Full 106 Effect Finding

No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) ☐ Archaeology ☐ NRHP Bridge(s) ☐

Documentation Prepared (mark all that apply)		ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report	X	July 21, 2021	N/A
Archaeological Phase Ic Survey Report			
Other:			

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

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

Work on guardrail, as originally planned, was deleted from the project scope. Therefore, Category A-6 no longer is applicable.

On June 10, 2021, a Qualified Historian with BF&S 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, D1 – D4). Category

A, Type 9 includes installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils. Category B, Type 12 includes replacement, widening or raising the elevation of the superstructure on existing bridges, and bridge replacement projects. Condition A. ii. of Category B Type 12 states that an archaeological investigation is required for work in undisturbed soils and that INDOT Cultural Resources Office determines that no National Register-listed or National Register-eligible archaeological resources are present within the project area. A records check and Phase Ia archaeological reconnaissance were completed by a Qualified Archaeologist on June 9, 2021, and no archaeological resources were found. No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

	Presence	Use	
Parks and Other Recreational Land		**Yes**	**No**
Publicly owned park	☐	☐	☐
Publicly owned recreation area	☐	☐	☐
Other (school, state/national forest, bikeway, etc.)	☐	☐	☐
Wildlife and Waterfowl Refuges			
National Wildlife Refuge	☐	☐	☐
National Natural Landmark	☐	☐	☐
State Wildlife Area	☐	☐	☐
State Nature Preserve	☐	☐	☐
Historic Properties			
Site eligible and/or listed on the NRHP	☐	☐	☐

	Evaluations Prepared
Programmatic Section 4(f)	☐
"De minimis" Impact	☐
Individual Section 4(f)	☐
Any exception included in 23 CFR 774.13	☐

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

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 regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, the aerial map of the project area (Appendix B, B4), and the RFI report (Appendix E) there are no 4(f) resources located within the 0.5 mile search radius. According to additional research, including a review of the IDNR State Parks website (http://www.in.gov/dnr/state-parks/), and by site visits on February 6, 2020, June 1, 2020 and June 3, 2021 by BF&S, there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

	Presence	Use	
Section 6(f) Involvement		**Yes**	**No**
Section 6(f) Property	☐	☐	☐

Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

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 INDOT ESD website revealed a total of three (3) properties in Spencer County

(Appendix H, H1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project	Yes	No
Is the project in the most current STIP/TIP?	X	
Is the project located in an MPO Area?		X
Is the project in an air quality non-attainment or maintenance area?		X
If Yes, then:		
Is the project in the most current MPO TIP?		
Is the project exempt from conformity?		
If No, then:		
Is the project in the Transportation Plan (TP)?		X
Is a hot spot analysis required (CO/PM)?		X

Location in STIP: Page 591 of the FY 2020-2024 STIP (Appendix G, G1)

Name of MPO (if applicable): N/A

Location in TIP (if applicable): N/A

Level of MSAT Analysis required?

Level 1a [X] Level 1b [ ] Level 2 [ ] Level 3 [ ] Level 4 [ ] Level 5 [ ]

Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.

This project is included in the Fiscal Year (FY) 2020-2024 Statewide Transportation Improvement Program (STIP) (Appendix G, G1).

This project is located in Spencer County, which is currently in attainment for all criteria pollutants according to https://www.in.gov/idem/airquality/files/nonattainment_areas_map.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 G - NOISE

Noise	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?		X

Date Noise Analysis was approved/technically sufficient by INDOT ESD: N/A

Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.

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 H – COMMUNITY IMPACTS

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

Discuss how the project complies with the area's local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.

This project is not of regional significance and will not have a significant impact on community cohesion or property values. No increase in local taxes will occur because of this project since all funds will come from the FHWA and the state of Indiana. The project does not divide a community or destroy any areas where the community hosts events.

Spencer County adopted an Americans with Disabilities Act (ADA) Transition Plan in 2016. This project does not involve improvements to existing pedestrian facilities, nor will it create new pedestrian facilities. Therefore, the project will comply with Spencer County's Transition Plan.

Public Facilities and Services

Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.

Based on a desktop review, the aerial map of the project area (Appendix A, A4), and the RFI report (Appendix E), there are no public facilities within the 0.5 mile search radius. That number was confirmed by the site visits on February 6, 2020, June 1, 2020 and June 3, 2021 by BF&S. There are no public facilities within or adjacent to the project area, therefore, no impacts are expected. Access to all properties will be maintained during construction.

The project proposes to close SR 62 at the bridge location during construction and utilize an official state road detour route. The road closure will likely occur when public schools in the area are in session (Fall, 2022), and it is possible that school buses utilize this section of SR 62. The North Spencer County School Corporation was sent an ECL on December 6, 2021 notifying them of the proposed project (Appendix C, C-47). No response has been received to date. 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?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?		X
Will the project result in adversely high and disproportionate impacts to EJ populations?		X

Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high and adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

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 a total of 0.657 acre of permanent right-of-way acquisition for access to the bridge substructure and future maintenance/repair to the guardrails located in all four quadrants of the bridge. 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 Spencer County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 9529. 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 2019 American Community Survey (ACS) 5-year estimate data was obtained from the US Census Bureau Website http://data.census.gov/cedsci/ on May 24, 2021 by BF&S. The data collected for minority and low-income populations within the AC are summarized in the table below.

Minority and Low-Income Data (2019 ACS 5-year estimate data)		
	COC Spencer County, Indiana	**AC Census Tract 9529 Spencer County, Indiana**
Percent Low-Income	9.30%	6.58%
125% of COC	11.62%	AC<125% COC
EJ Population of Concern		No
Percent Non-white/Minority	5.14%	2.83%
125 Percent of COC	6.42%	AC<125% of COC
EJ Population of Concern		No

The AC, Census Tract 9529 has a percent low-income of 6.58% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a low-income population of EJ concern.

The AC, Census Tract 9529, has a percent minority of 2.83% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a minority population of EJ concern.

The census data sheets, map, and calculations can be found in Appendix H, H5-H15. No environmental justice populations of concern were identified in the project area. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms

	Yes	**No**
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a BIS or CSRS required?		X

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

Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.

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

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation (RFI)	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

Date RFI concurrence by INDOT SAM (if applicable): March 23, 2020

Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.

Based on a review of GIS and available public records, a RFI was concurred by INDOT SAM on March 23, 2020 (Appendix E). No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified in or within 0.5 mile of the project area. After the original RFI was approved, NDOT SAM was contacted by Butler, Fairman and Seufert, Inc. (BF&S) on May 6, 2021, and was asked if an RFI amendment would be required for the proposed ROW acquisition. INDOT SAM responded on May 7, 2021 and indicated that if no substantive changes to the project scope have occurred then an RFI Addendum would not be required for the added right-of-way (Appendix E, E11 – E12). Further investigation for hazardous material concerns or regulated substances is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	X
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	X
Individual Permit (IP)	
Isolated Wetlands	
Rule 5	
Other	
IN Department of Natural Resources	
Construction in a Floodway	
Navigable Waterway Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."

INDOT EWPO provided a Permit Determination on October 5, 2020 concluding It is anticipated that a 401/404 Regional General Permit will be required due to impacts of placing riprap outside the existing riprap footprint and below the OWHM of Buckhorn Creek (Appendix F, F63). The total stream impacts are anticipated to be below 0.1 acre and 300 linear feet, with no stream relocations proposed. No stream mitigation is anticipated to be required.

INDOT EWPO's Permit Determination also concluded that an IDNR permit will not be required since the project qualifies for the rural bridge exemption.

Applicable recommendations provided by resource agencies 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.

ENVIRONMENTAL COMMITMENTS

List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.

Firm:

1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (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 that would block or limit access. (INDOT ESD)

3) Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)

4) USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after May 17, 2023, 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)

5) Bridge No. 62-74-06164B carrying SR 62 over Buckhorn Creek has shown no evidence of use (for example, nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA) during previous inspections. However, the structure is located over or near water which is preferred habitat for migratory birds. Avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the “Potential Migratory Bird on Structure Unique Special Provision”. (INDOT ESD)

6) 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. (USFWS)

7) Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)

For Further Consideration:

8) Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)

9) Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)

10) Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)

11) Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be

operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)

12) Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)

13) 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. (IDNR)

14) 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 should 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)

15) 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 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. (IDNR)

16) We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. All planting plans, mitigation plans and/or woody revegetation plans need to be developed following the DNR's Habitat Mitigation guidelines (and plant lists) which can be found online at: http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf. (IDNR)

17) 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) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however. (IDNR)

18) 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. (IDNR)

19) 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)

20) Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR)

21) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR)

22) Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR)

APPENDIX TABLE OF CONTENTS

Categorical Exclusion Level 2
State Road (SR) 62 over Buckhorn Creek Bridge
Spencer County, Indiana
Des. No. 1800914

APPENDIX A

INDOT CE THRESHOLD CHART

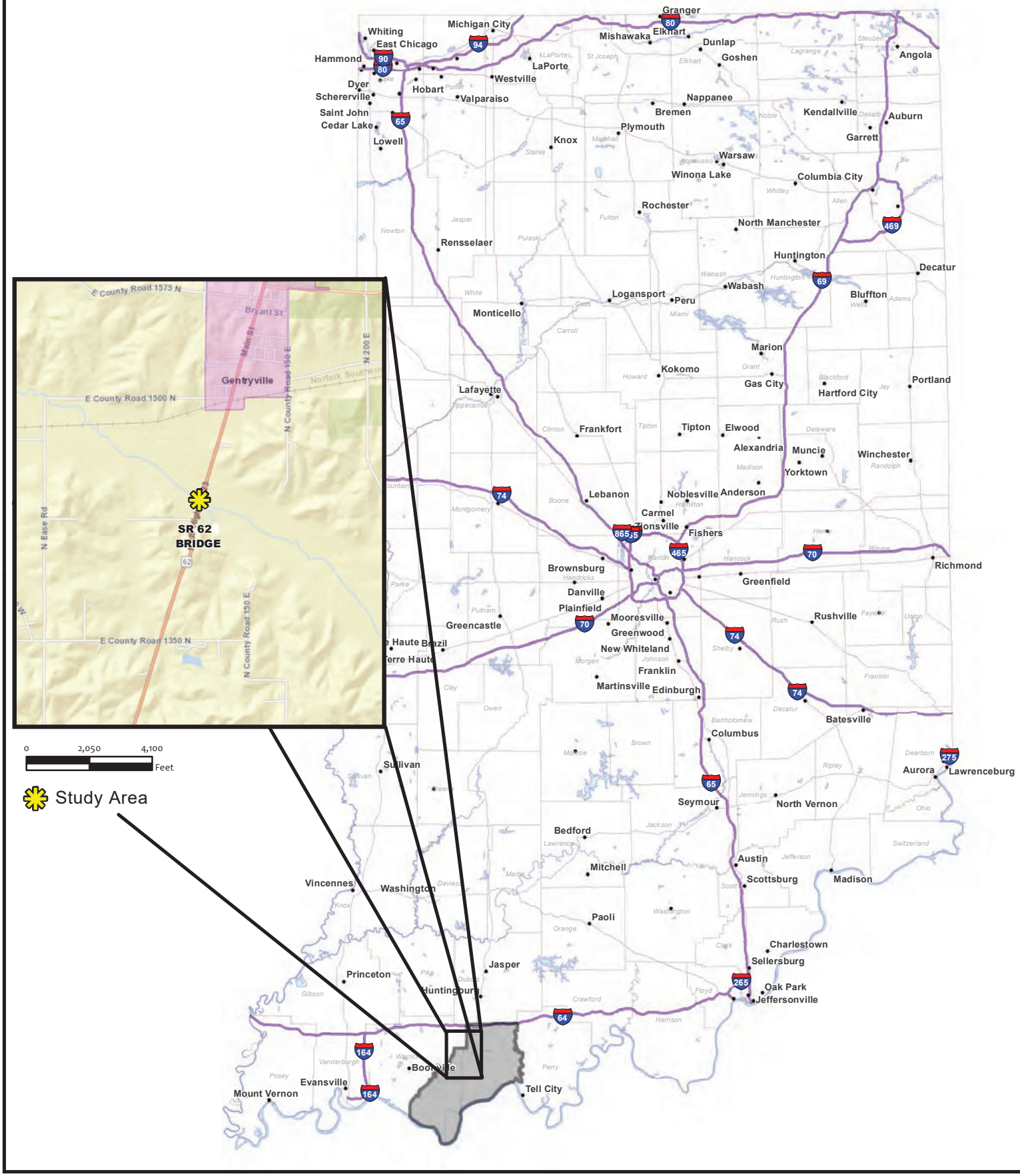
Categorical Exclusion Level Thresholds

	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[3]	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit[4]
Wetland Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	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" (With select AMMs[6])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[7]
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential[8]
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any[9]
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[10]
Approval Level • **District Env. (DE)** • **Env. Serv. Div. (ESD)** • **FHWA**	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

[1] Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3] Total permanent impacts to streams (linear feet) and wetlands (acres).
[4] US Army Corps of Engineers Individual 404 Permit
[5] Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.
[6] Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.
[7] Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower level CE.
[8] Potential for causing a disproportionately high and adverse impact.
[9] Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.
[10] Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
* Includes the threatened/endangered species critical habitat
Note: Substantial public or agency controversy may require a higher-level NEPA document.

APPENDIX B

MAPS AND GRAPHICS

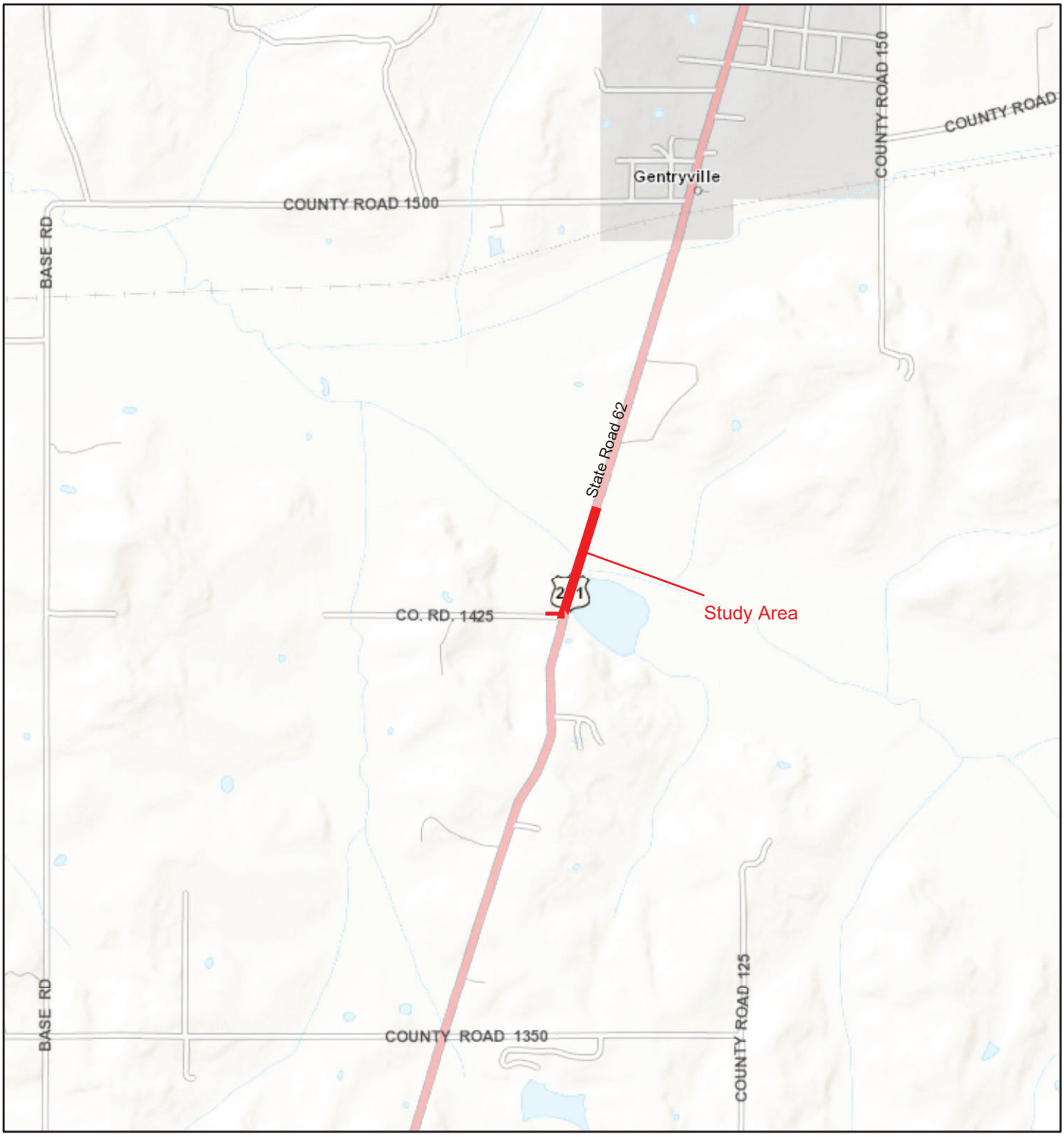


State Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914

Map Source: Indiana Map

Butler Fairman Seufert
CIVIL ENGINEERS

SR 62 over Buckhorn Creek



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1:16,000

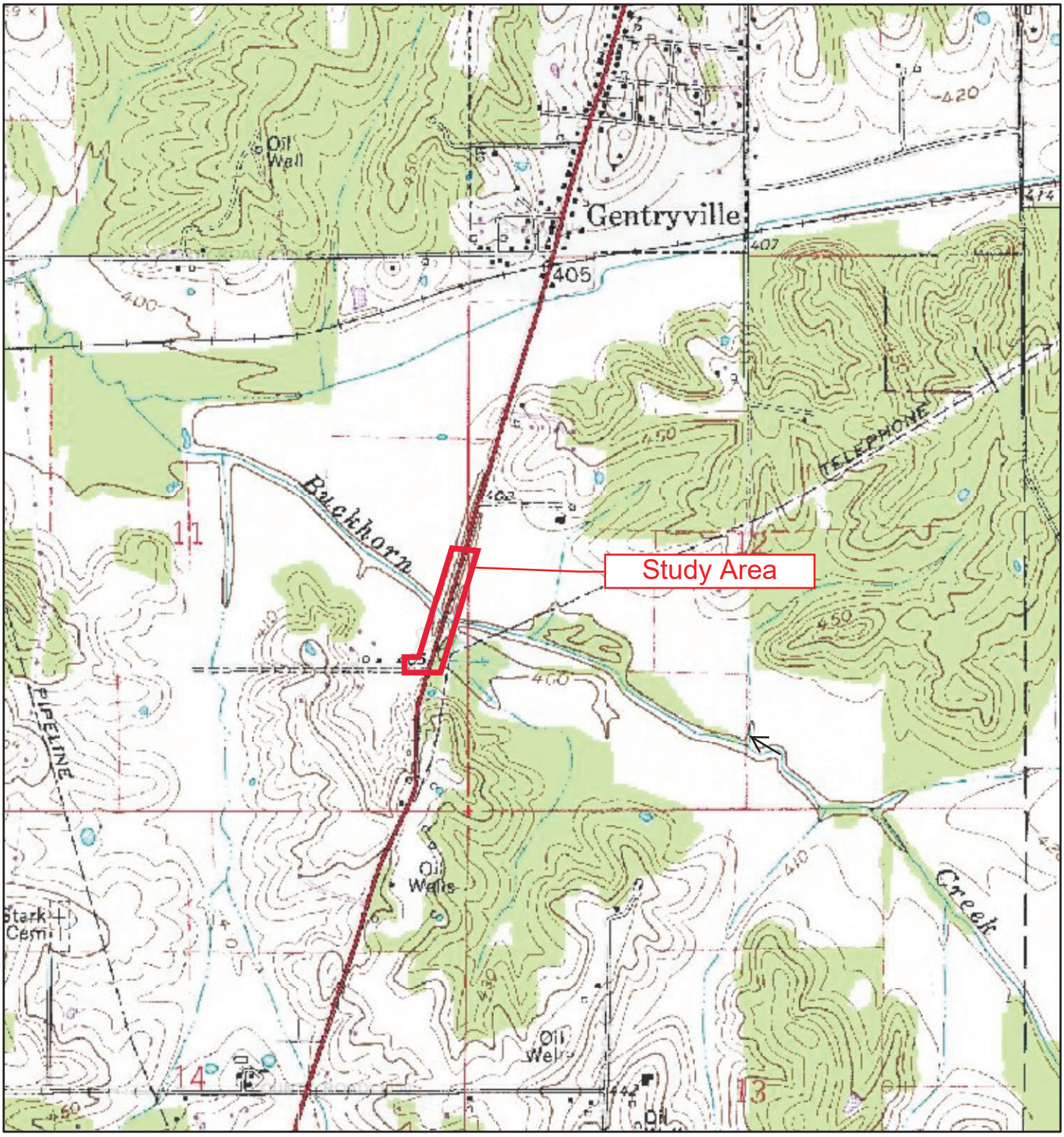
0 0.125 0.25 0.5 mi

0 0.2 0.4 0.8 km

Indiana Road Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914

Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal

SR 62 over Buckhorn Creek



USGS Chrisney, IN Quadrangle Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914
Section 11, Township 5S, Range 6W

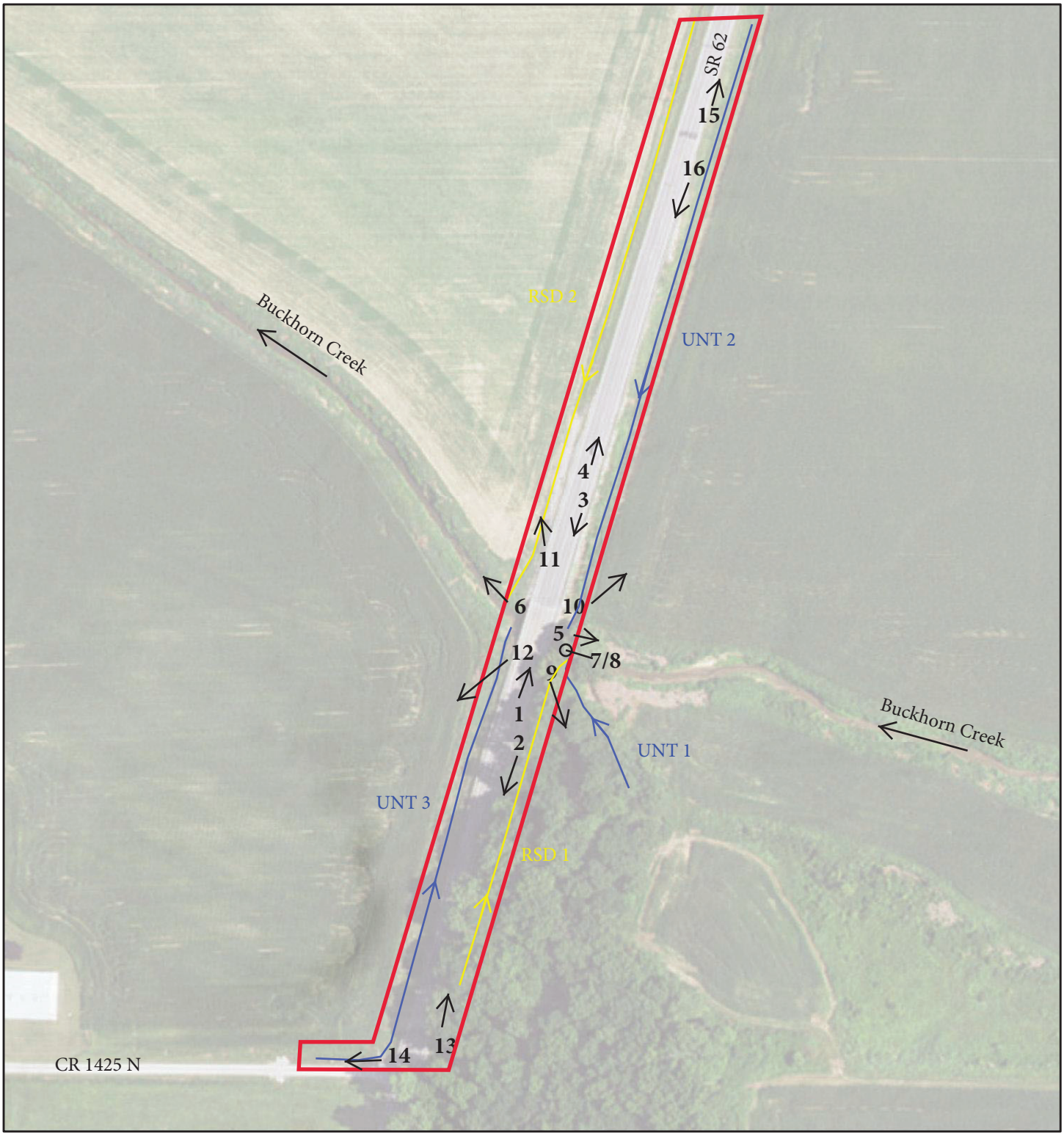
1:16,000

N

0 0.125 0.25 0.5 mi
0 0.2 0.4 0.8 km

United States Geological Survey (USGS)
Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal

SR 62 over Buckhorn Creek



Photograph Orientation Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914

N

1:2,000

0 0.015 0.03 0.06 mi

0 0.0275 0.055 0.11 km

Study Area

Photo Points # →

2018 Aerial

Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal
National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

Photo 1: Looking northeast along SR 62 towards Bridge No. 62-74-06164 B.

Photo 2: Looking southwest along SR 62 from south of Bridge No. 62-74-06164 B.

Photo 3: Looking southwest along SR 62 towards Bridge No. 62-74-06164 B.

Photo 4: Looking northeast along SR 62 from north of Bridge No. 62-74-06164 B.

Photo 5: Looking southeast (upstream) along Buckhorn Creek from Bridge No. 62-74-06164 B.

Photo 6: Looking northwest (downstream) along Buckhorn Creek from Bridge No. 62-74-06164 B.

Photo 7: East elevation view of Bridge No. 62-74-06164 B.

Photo 8: Looking northwest (downstream) along Buckhorn Creek from under Bridge No. 62-74-06164 B.

Photo 9: View of the southeast quadrant from Bridge No. 62-74-06164 B.

Photo 10: View of the northeast quadrant from Bridge No. 62-74-06164 B (note UNT 2 confluence with Buckhorn Creek)

Photo 11: View of the northwest quadrant from Bridge No. 62-74-06164 B.

Photo 12: View of the southwest quadrant from Bridge No. 62-74-06164 B.

Photo 13: Looking north from the east side of SR 62 near CR 1425 North

Photo 14: Looking west from SR 62 at CR 1425 North

Photo 15: Looking north from the east side of SR 62 near the northern study limits

Photo 16: Looking south along the east side of SR 62 near the northern study limits

PROJECT	DESIGNATION
1800914	1800914
CONTRACT	BRIDGE FILE
B-41060	62-74-06164 C

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION PLANS

FOR SPANS OVER 20 FEET

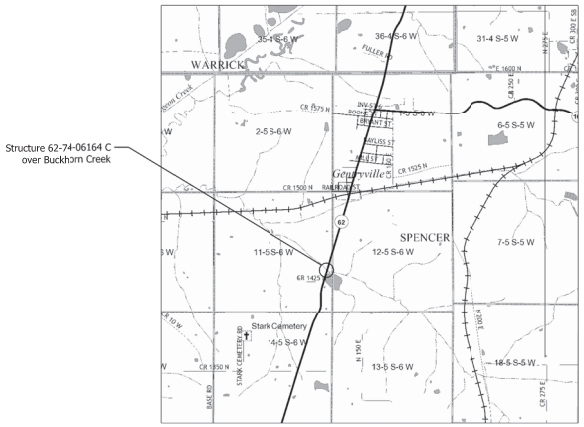
ROUTE: SR 62 AT: RP 60+88

PROJECT NO. 1800914 P.E.
R/W
1800914 CONST.

NO ADDITIONAL RIGHT-OF-WAY REQUIRED FOR THIS PROJECT

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
62-74-06164 C	Adjacent Prestessed Concrete Box Beam Bridge	1 Span 56'-0" Skew: 0°	Buckhorn Creek	RP 60+88

Bridge Deck Overlay on SR 62 over Buckhorn Creek
Located 1.4 Miles South of SR 162
Section 11, T-5-S, R-6-W, Jackson Township, Spencer County, Indiana



Jackson Township
Spencer County

TRAFFIC DATA		
A.A.D.T.	(2020)	1661 V.P.D.
A.A.D.T.	(2040)	1661 V.P.D.
D.H.V	(2040)	160 V.P.H.
DIRECTIONAL DISTRIBUTION		49.37 %
TRUCKS		14.75 % A.A.D.T.
		16.25 % D.H.V.

DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREWAY)
FUNCTIONAL CLASSIFICATION	STATE COLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE

PROJECT LOCATION SHOWN BY
Spencer

LATITUDE: N38°05'55" LONGITUDE: 87°02'07"

BRIDGE LENGTH: 0.01 MI.
ROADWAY LENGTH: 0.03 MI.
TOTAL LENGTH: 0.04 MI.
MAX. GRADE: 0% %

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS.

PLANS PREPARED BY: _____ PHONE NUMBER

CERTIFIED BY: _____ DATE

APPROVED FOR LETTING: _____ DATE
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE
62-74-06164 C
DESIGNATION
1800914

SURVEY BOOK	SHEETS
	1 of 5
CONTRACT	PROJECT
B-41060	1800914

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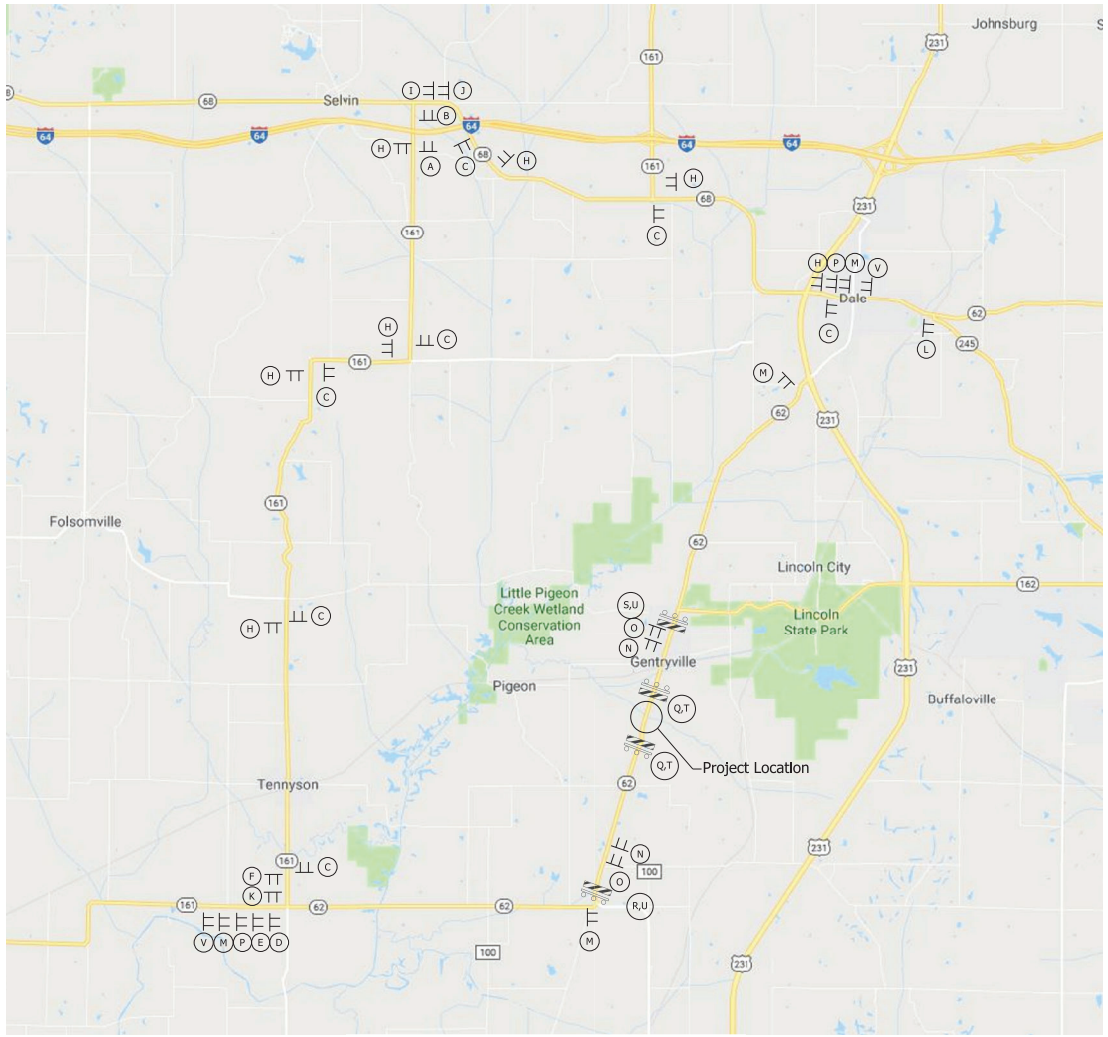

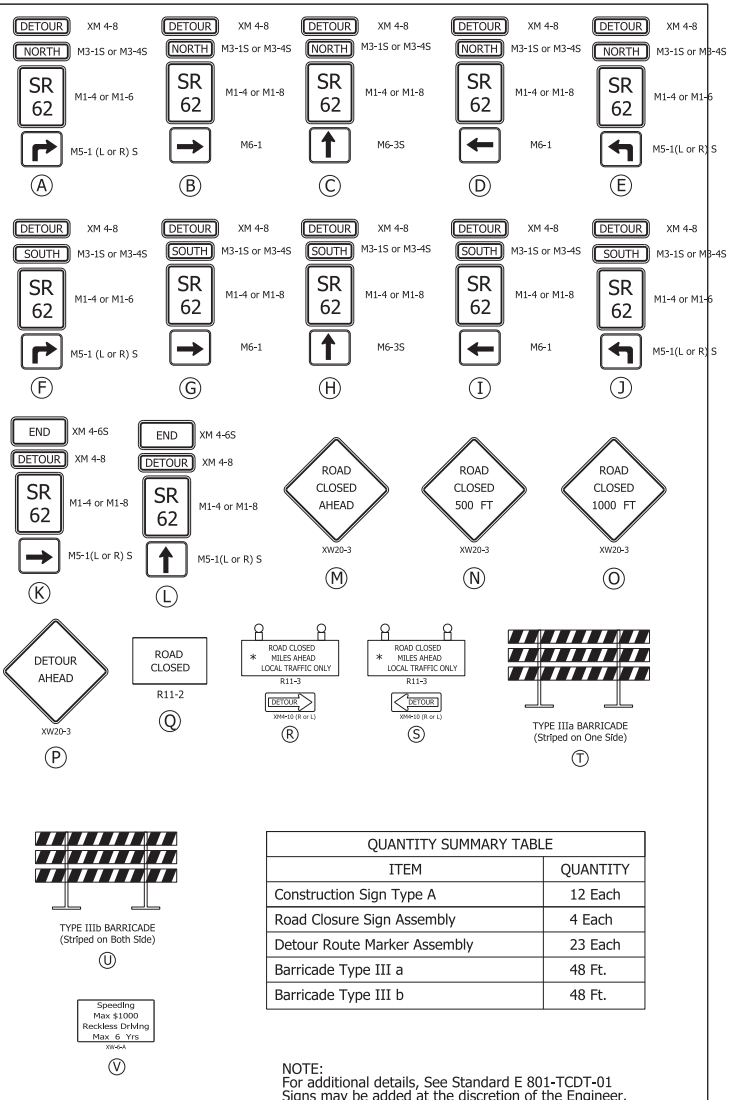

QUANTITY SUMMARY TABLE	
ITEM	QUANTITY
Construction Sign Type A	12 Each
Road Closure Sign Assembly	4 Each
Detour Route Marker Assembly	23 Each
Barricade Type III a	48 Ft.
Barricade Type III b	48 Ft.

NOTE:
For additional details, See Standard E 801-TCDT-01
Signs may be added at the discretion of the Engineer.
∗ Distance (Miles) will be decided by the Field Engineer.

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ARS DRAWN: MGA

CHECKED: RBM CHECKED: ARS

INDIANA
DEPARTMENT OF TRANSPORTATION

DETOUR SHEET

SCALE	BRIDGE FILE
N/A	62-74-06164 C
	DESIGNATION
	1800914
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
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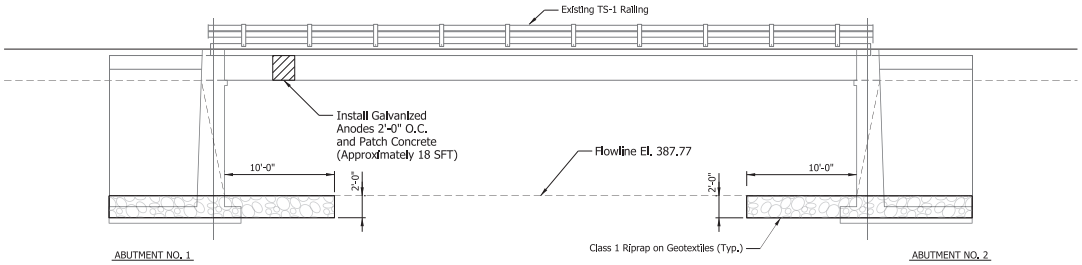
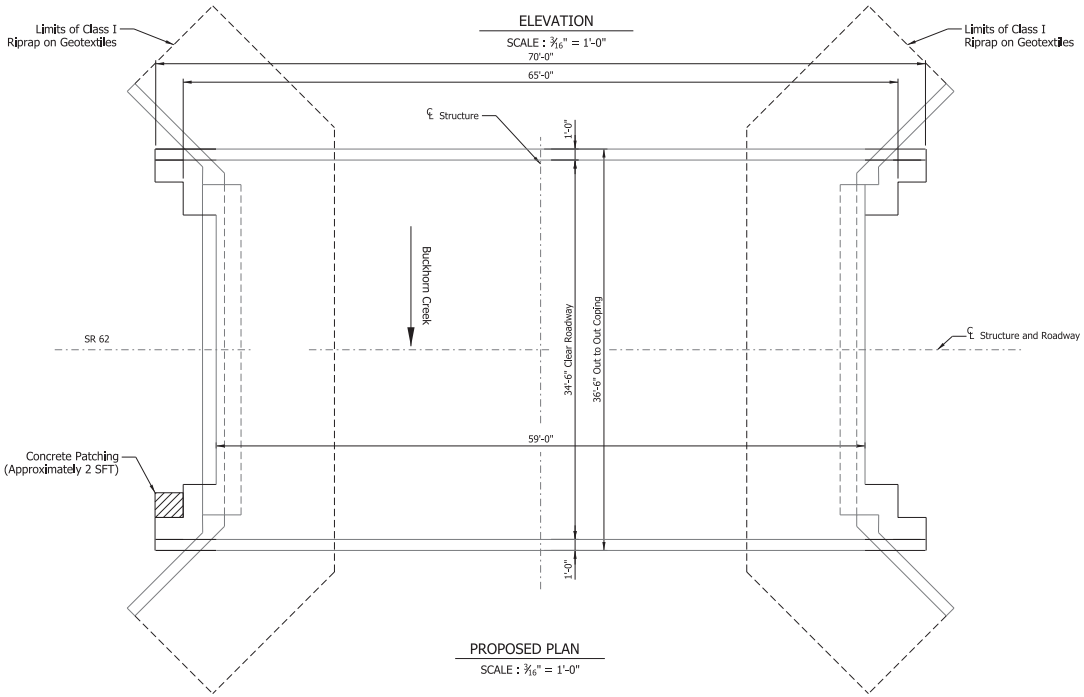


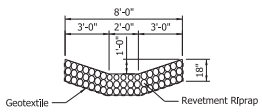
ELEVATION

SCALE : 3/16" = 1'-0"



PROPOSED PLAN

SCALE : 3/16" = 1'-0"



SECTION THROUGH RIPRAP DRAINAGE TURNOUT

SCALE : 1/4" = 1'-0"

Bridge Deck Overlay on Prestressed Box Beam Bridge
1 Span @ 56'-0"
34'-6" Clear Roadway on SR 62
Over Buckhorn Creek
In Jackson Township, Spencer County

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ARS DRAWN: MGA

CHECKED: RBM CHECKED: ARS

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN SHEET NO. 1

SCALE	BRIDGE FILE
3/16" = 1'-0"	62-47-06164 C
	DESIGNATION
	1800914
SURVEY BOOK	SHEETS
	4 of 5
CONTRACT	PROJECT
B-41060	1800914

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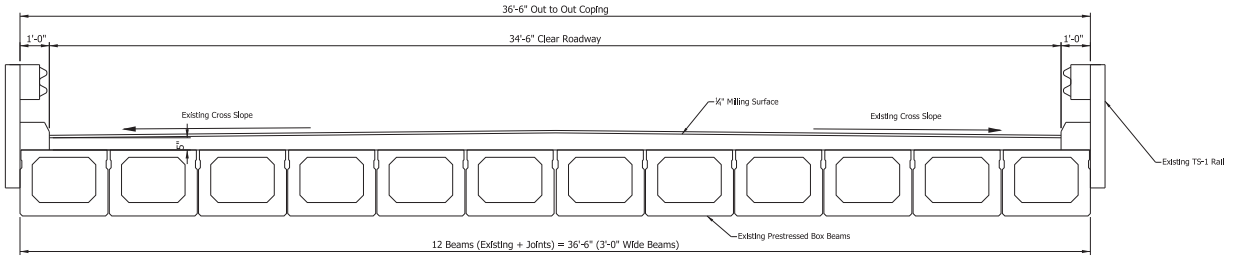

EXISTING SECTION
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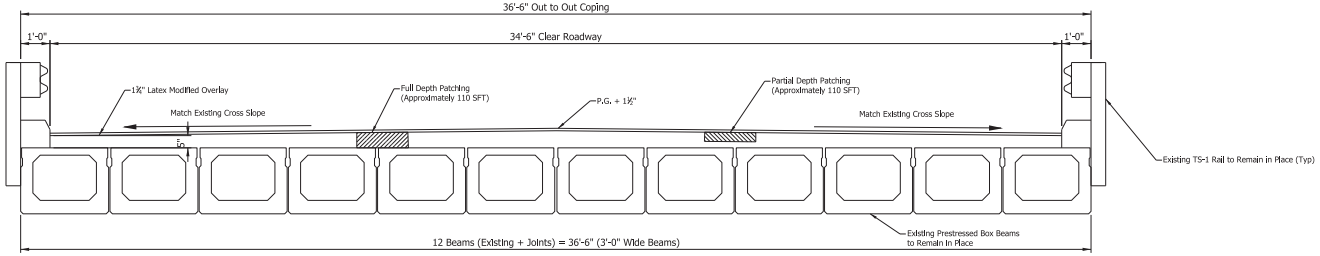

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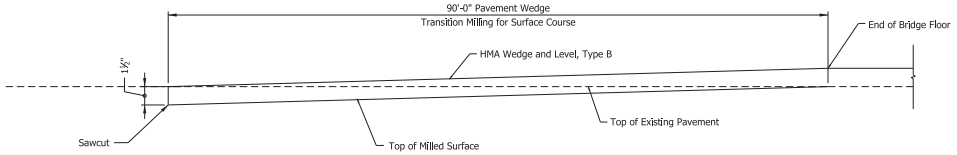

TRANSITION MILLING DETAIL
Scale: None

GENERAL NOTES

Plans for the existing bridge are on file in the Records Unit of the Indiana Department Of Transportation as Bridge File 62-74-6164 B.

Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer and assume responsibility for their correctness and the fit of the new part to the old.

MATERIAL NOTES

Bridge Deck Overlay:
1¾" Latex Modified Portland Cement Concrete.

DESIGN DATA

Live Load:
Originally designed for HS20-44 Loading in accordance with 1957 AASHO LFD specifications

Dead Load:
Actual without future wearing surface

Allowable Design Stresses:
Class C Concrete fc = 4,000 psi

CONSTRUCTION PROCEDURE

Remove portions of deck as shown on plans.
Mill existing deck 1/4".
Construct deck overlay as shown. Existing deck to be patched at locations as directed by the Engineer.
Install riprap and riprap turnouts as shown on the plans.
Install cathodic protection and patch concrete around drain hole on west coping.
Wedge and level approach grade.

DATE	REVISION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ARS DRAWN: MGA

CHECKED: RBM CHECKED: ARS

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN SHEET NO. 2

SCALE	BRIDGE FILE
AS SHOWN	62-74-06164 C
	DESIGNATION
	1800914
SURVEY BOOK	SHEETS
	5 of 5
CONTRACT	PROJECT
B-41060	1800914

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Model: BR_Detail Sheet

APPENDIX C

EARLY COORDINATION

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Example of Early Coordination Letter (ECL)

July 1, 2020

Ryan Falls
Environmental Section Manager (Supervisor)
INDOT Vincennes District

Re: Des. No.: 1800914, Bridge Rehabilitation on Structure No. 062-74-06164B carrying State Road (SR) 62 over Buckhorn Creek, 1.4 miles south of SR 162, Spencer County, Indiana.

Dear Mr. Falls:

The Indiana Department of Transportation (INDOT)- Vincennes District and Federal Highway Administration (FHWA) intends to proceed with a project involving the aforementioned structure in Spencer County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located over Buckhorn Creek on SR 62, 1.4 miles south of SR 162, Spencer County, Indiana. The current condition of the Prestressed Concrete Box Beam bridge is poor, according to the May 10, 2019 *Bridge Inspection Report*. The purpose of this project is to address the poor condition of the bridge deck, minor deterioration to the beams and abutments, and erosion of the Buckhorn Creek stream channel for Structure No. 062-74-06164B. Driven w-beam guardrail is present in all 4 quadrants with the w-beam guardrail bolted directly to the existing beams across the structure. The section of SR 62 over Buckhorn Creek at the two-lane structure has a functional classification of Rural- State Collector.

The current proposed project would entail milling and repaving the existing bridge deck and approaches and constructing a Latex Modified Cement Concrete deck overlay. The bridge overlay over the spalled and cracked approaches will be wedged and leveled. Riprap and riprap turnouts will be placed around abutments to prevent further erosion. The longitudinal cracking on the beams and abutments will be patched with concrete, and galvanized anodes will be installed. The bridge drainage system will be rehabilitated by concrete patching and the installation of cathodic protection. At the conclusion of the project, the guardrail will be replaced in-kind with new guardrail that meets Midwest Guardrail System (MGS) standards.

There is suitable bat habitat within and surrounding the project area, although no trees are required for removal for access to the project area. The project would not require the acquisition of permanent or temporary rights-of-way. The project limits along SR 62 over Buckhorn Creek include approximately 70 feet in length and 36 feet in width on the bridge, with a 10-foot by 2-foot riprap placement area under the bridge. Temporary lighting may be utilized for this project. There will be no changes to permanent lighting as a part of this project. Traffic will be maintained throughout construction using a detour as the bridge will be closed to motorists. The project is anticipated to be constructed in 2023-2024.

Land use in the vicinity of the project is primarily riparian forest, agricultural land and includes residences in the southwest quadrant. The INDOT Environmental Services Division (ESD) Ecology & Waterway Permitting Office (EWPO) will review waters and wetlands determinations and the biological assessment to confirm any ecological resources that may be present.

This project qualifies for the application of the United States Fish and Wildlife Service (USFWS) range-wide programmatic informal consultation for the Indiana bat and Northern long-eared bat and project information will be submitted through USFWS's Information for Planning and Consultation (IPaC) separately. The INDOT Cultural Resources Office (CRO) will investigate the areas of additional right-of-way for archaeological and historic resources for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer (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 feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Hannah Bays, Environmental Preparer, Butler, Fairman and Seufert, Inc., hbays@bfsengr.com, or Matthew Bullock, Project Manager, INDOT-Vincennes District., MBullock1@indot.in.gov. Thank you in advance for your input.

Sincerely,

Hannah Bays
Environmental Scientist
Butler, Fairman and Seufert, Inc.

HB/rs
Attachments-
Maps (Location, Topographic, Aerial, Photo Key, Wetlands Inventory, Soils, and FEMA)
Photographs
Spencer County ETR Species List

Ms. Erica Tait
575 N Pennsylvania St # 254
Indianapolis, IN 46204
Erica.tiat@dot.gov

Ryan Falls
Environmental Section Manager (Supervisor)
INDOT Vincennes District
RFalls@indot.in.gov

Christie Stanifer, Environmental Coordinator
Division of Water, Environmental Unit
Indiana Department of Natural Resources
402 West Washington Street, W-264
Indianapolis, IN 46204-2641
environmentalreview@dnr.in.gov

Robin McWilliams
U.S Fish and Wildlife Service
Bloomington Indiana Field Office
620 South Walker Street
Bloomington, Indiana 47403
Robin_mcwilliams@fws.gov

Paul J. Lehmann, Regional Environmental Officer
Chicago Regional Office
U.S. Dpt. of Housing and Urban Dvlpt.
Metcalf Fed. Bldg.
77 W. Jackson Blvd. Room 2401
Chicago, IL 60604
Paul.J.Lehmann@hud.gov

Hector Santiago
National Park Service, Department of Interior
601 Riverfront Drive
Omaha, NE 68102
hector_santiago@nps.gov

Jerry Raynor, State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278
rick.neilson@in.usda.gov

Greg McKay
ATTN: CELRL-OPF-N
Louisville District, USACE
P.O. Box 59
Louisville, KY 40201-0059
Gregory.A.McKay@usace.army.mil

Marcia Burdin
Floodplain Administrator
240 Boone Street
Gentryville, IN 47537

David Faulkenberg
Spencer County Surveyor
200 Main Street, Courthouse, Room 6
Rockport, IN 47635
scsurveyor@psci.net

Gina Mullen
Highway Administrator
920 E CR 800 N
Chrisney, IN 47611
schwy@psci.net

From: McWilliams, Robin
To: Hannah Bays
Subject: Re: [EXTERNAL] Early Coordination Request for Des 1800914
Date: Tuesday, July 21, 2020 1:44:27 PM

Dear Hannah,

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

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

The project is within the range of the Indiana bat (Myotis sodalis) and northern long-eared bat (Myotis septentrionalis) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (i.e. a federal transportation nexus is established). The Service has 14 days after a "Not Likely to Adversely Affect" determination letter is generated to review the project and provide additional comments or request additional information; if you do not receive a response from us within 14 days, we have no additional comments.

The project is also within the range of the gray bat (Myotis grisescens). Gray bats are year-round cave obligates, roosting in caves both during hibernation and summer maternity season; they may also occasionally use structures for roosting. Foraging habitat of gray bats is generally correlated with rivers, streams, lakes or reservoirs and associated shorelines and riparian areas. They use forested corridors and tree cover to travel between caves and foraging areas. Based on the project location and description, no impacts to the gray bat are anticipated.

The U.S. Fish and Wildlife Service has no other comments on the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,
Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. (**This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-

arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.

4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.

5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.

6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.

7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing

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

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

From: Hannah Bays <HBays@bfsengr.com>
Sent: Wednesday, July 1, 2020 2:04 PM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Subject: [EXTERNAL] Early Coordination Request for Des 1800914

Dear Ms. McWilliams,

Our firm has been retained by INDOT-Vincennes District to prepare an environmental study for the project with Des No 1800914. Please find attached a request for technical assistance from your agency.

Thank you,

Hannah Bays
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302 |
p 317-713-4615 | f 317-713-4616
HBays@bfsengr.com | www.BFSEngr.com

THIS IS NOT A PERMIT

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

DNR #: ER-22778 **Request Received:** July 1, 2020

Requestor:
Butler Fairman and Seufert Inc
Hannah Bays
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240-8302

Project: SR 62 bridge (#062-74-06164B) rehabilitation over Buckhorn Creek, 1.4 miles south of SR 162; Des #1800914

County/Site info: Spencer

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) or qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 1997. Please include a copy of this letter with the permit application, if required.

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 banks under the bridge currently appear to not have any riprap for scour protection except for a small area in the southeast quadrant of the bridge. The natural-surface banks currently facilitate the unimpaired movement of wildlife along the creek banks under the road.

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 should be restored, stabilized, and revegetated using geotextiles and a

Attachments: A - Bridge Exemption Criteria

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 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.

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. All planting plans, mitigation plans and/or woody revegetation plans need to be developed following the DNR's Habitat Mitigation guidelines (and plant lists) which can be found online at: http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.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) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

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 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,

Attachments: A - Bridge Exemption Criteria

THIS IS NOT A PERMIT

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

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. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
9. 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.

Christie L. Stanifer **Date:** July 31, 2020

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

Attachments: A - Bridge Exemption Criteria

USDA
United States Department of Agriculture

November 1, 2021

Hannah Bays
Butler, Fairman & Seufert
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Dear Ms. Bays:

The proposed project to rehabilitate the bridge that carries State Road 62 over Buckhorn Creek in Spencer County, Indiana, (Des No 1800914) as referred to in your letter received October 5, 2021, will cause a conversion of prime farmland.

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

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

Sincerely,

RICHARD NEILSON Digitally signed by RICHARD NEILSON Date: 2021.11.12 06:44:32 -05'00'

RICK NEILSON
State Soil Scientist

Enclosures

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request October 5, 2021
Name of Project DES1800914_Bridge Rehab_SR62 over	Federal Agency Involved FHWA
Proposed Land Use Same as existing	County and State Spencer County, Indiana
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 10/5/2021 / Person Completing Form: JRA

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size: 190 ac
Major Crop(s): Corn	Farmable Land In Govt. Jurisdiction Acres: 210590 % 82	Amount of Farmland As Defined in FPPA Acres: 151782 % 59	
Name of Land Evaluation System Used: LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS: 11/1/2021	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.657			
B. Total Acres To Be Converted Indirectly	0.00			
C. Total Acres In Site	0.657			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.66			
B. Total Acres Statewide Important or Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	65			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	66			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	13			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	5			
6. Distance To Urban Support Services	(15)	5			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	2			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	70	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	66	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	70	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	136	0	0	0

Site Selected: A | Date Of Selection 11/12/2021 | Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

The project maintains the current roadway alignment, therefore minimizing impacts to adjacent farmland.

Name of Federal agency representative completing this form: Ryan Scott (BF&S Inc.) | Date: 11/12/2021

(See Instructions on reverse side) **Form AD-1006 (03-02)**

INDIANA
GEOLOGICAL SURVEY

Organization and Project Information

Project ID:
Des. ID: 1800914
Project Title: SR 62 over Buckhorn Creek
Name of Organization: Butler, Fairman, & Seufert, Inc.
Requested by: Neal Bennett

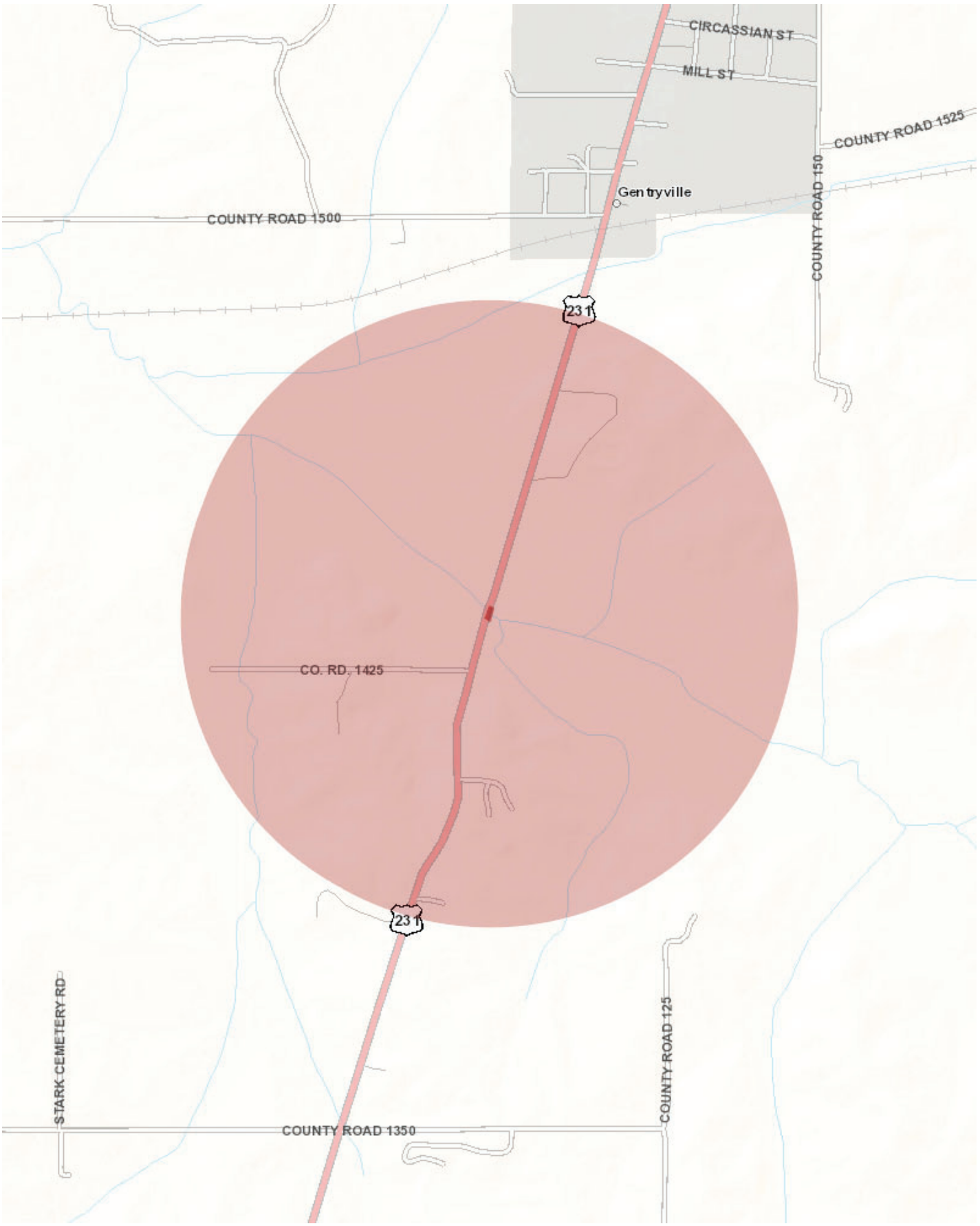
Environmental Assessment Report

1. Geological Hazards:
   - High liquefaction potential
   - 1% Annual Chance Flood Hazard
2. Mineral Resources:
   - Bedrock Resource: High Potential
   - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
   - Petroleum Exploration Wells

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

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: August 20, 2020



Metadata:

- https://maps.indiana.edu/metadata/Geology/Petroleum_Wells.html
- 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

Coordination with INDOT

From: Falls, Ryan G
To: Hannah Bays
Cc: Wright, Kristy; Ridgley, Brad
Subject: RE: Vincennes Early Coordination Response for Des 1800914
Date: Thursday, July 2, 2020 8:35:02 AM

Hannah Bays,

Thank you for using INDOT letterhead for the letter, as this is the preferred stationing for these letters when going out to agencies and interested parties for early coordination for state projects. In future EC letters, when mentioning informal consultation for IN & NLEB, if you have already completed IPaC prior to early coordination, please go ahead and state the finding.

With regards to your EC list, Christie Stanifer is the Environmental Coordinator for the IDNR-Division of Fish and Wildlife, not the Division of Water. This will need to be updated in NEPA document, no need to re-coordinate; however, if you wish to coordinate with the IDNR-Division of Water, you will need to contact them separately, as the *environmentalreview@dnr.in.gov email goes to the DFW.*

Also, I am not seeing IDEM on the list. Though it is an auto-generated format, they still need to be included on the list and coordinated with (https://www.in.gov/idem/5284.htm). Please coordinate with IDEM, if you have not already done so and add them to the list in the NEPA document. Again, no need to re-coordinate. The Project Owner will be the INDOT project manager's information (and will require their review and signature after the letter is generated) and the Applicant will be your contact information (with your signature).

Thank you for the opportunity to respond to early coordination.

Ryan Falls
Capital Program Management-Senior Environmental Manager Supervisor
Indiana Department of Transportation
3650 South US Highway 41
Vincennes, IN 47591
Office: 812-895-7326
Cell: 812-582-1387
Email: rfalls@indot.IN.gov

855 INDOT4U
855-463-6848

From: Hannah Bays <HBays@bfsengr.com>
Sent: Wednesday, July 1, 2020 2:02 PM
To: Falls, Ryan G <RFalls@indot.IN.gov>
Subject: Early Coordination Request for Des 1800914

Dear Mr. Falls,

Our firm has been retained by INDOT-Vincennes District to prepare an environmental study for the project with Des No 1800914. Please find attached a request for technical assistance from your agency.

Thank you,

Hannah Bays
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302 |
p 317-713-4615 | f 317-713-4616
HBays@bfsengr.com | www.BFSEngr.com

Coordination with Town of Gentryville

From: Bullock, Matthew K
To: Town of Gentryville ; Hannah Bays
Cc: Town of Gentryville; Sparks, Katerina
Subject: RE: Des 1800914
Date: Thursday, July 16, 2020 12:31:34 PM
Attachments: image001.png

Marty,

Thank you for reaching out. We will not be removing any of the guardrail during this project. There will be no excavation in that area.

Matthew Bullock
Project Manager
Vincennes District
Cell: (812) 830-9683
Email: mbullock1@indot.in.gov

From: Town of Gentryville <gentryvilletown@gmail.com>
Sent: Wednesday, July 15, 2020 10:33 AM
To: hbays@bfsengr.com <hbays@bfsengr.com>; Bullock, Matthew K <MBullock1@indot.IN.gov>
Cc: Town of Gentryville <gentryvilletwn@psci.net>
Subject: Des 1800914

To whom it may concern,

We received the letter concerning DES 1800914, We have a water line that lays underneath the west side guardrail. Our concern that any guardrail work or excavation on the West side of IN 62 would potentially cause damage to the water main. Please feel free to contact me via this e-mail address or I may be reached by phone at 812-893-0487.

Thanks,
Marty Brown
Town of Gentryville

Sent from Mail for Windows 10

Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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

Indiana Department of Transportation
Matthew Bullock, Project Manager
3650 S. US 41
Vincennes , IN 47591
Date

Butler, Fairman, & Seufert, Inc.
Neal Bennett, Environmental Scientist
8450 Westfield Blvd., Suite 300
Indianapolis , IN 46240

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The project is located on SR 62 approximately 1.4 miles south of SR 162 and 0.7 south west of the Town of Gentryville, Spencer County, Indiana. More specifically, the project is located in Section 11, Township 5 South, and Range 6 West on the U.S. Geological Survey (USGS) Gentryville, Indiana Quadrangle. The project proposes to rehabilitate Bridge 062-74-06164B carrying SR 62 over Buckhorn Creek by performing concrete patching on various locations on the structure including around the drain holes on the west coping, removal of portions of the bridge deck and perform partial depth patching, mill existing bridge deck ¼ inch, construct deck overlay, and wedge and level approach grades. In addition, it is proposed to install riprap within the stream channel to protect the bridge footings from scour.

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 (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, Kosciosko, 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 follow statutes:
    - IC 14-26-2 Lakes Preservation Act 312 IAC 11
    - 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 addition 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 (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 (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 is it 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 project is located on SR 62 approximately 1.4 miles south of SR 162 and 0.7 south west of the Town of Gentryville, Spencer County, Indiana. More specifically, the project is located in Section 11, Township 5 South, and Range 6 West on the U.S. Geological Survey (USGS) Gentryville, Indiana Quadrangle. The project proposes to rehabilitate Bridge 062-74-06164B carrying SR 62 over Buckhorn Creek by performing concrete patching on various locations on the structure including around the drain holes on the west coping, removal of portions of the bridge deck and perform partial depth patching, mill existing bridge deck ¼ inch, construct deck overlay, and wedge and level approach grades. In addition, it is proposed to install riprap within the stream channel to protect the bridge footings from scour.

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: 08/21/2020

Signature of the INDOT
Project Engineer or Other Responsible Agent

Matthew Bullock, Project Manager

Date: 08/21/2020

Signature of the
For Hire Consultant

Neal Bennett, Environmental Scientist

Neal Bennett

From: Royer, Brian <BRoyer@dnr.IN.gov>
Sent: Monday, October 19, 2020 1:52 PM
To: Neal Bennett
Subject: RE: Mapped petroleum wells near Gentryville, IN

No there should not be any issues encountered from oil and gas wells in this area.

Thanks,

Brian Royer
Orphan Well Manager
Indiana Department of Natural Resources
Division of Oil & Gas
Cell- 317-417-6556
www.dnr.IN.gov

** Please let us know about the quality of our service by taking this brief* customer survey.

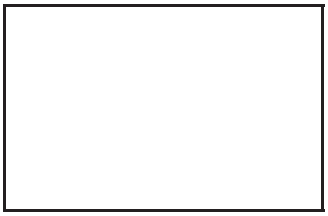
From: Neal Bennett <NBennett@bfsengr.com>
Sent: Monday, October 19, 2020 1:25 PM
To: Royer, Brian <BRoyer@dnr.IN.gov>
Subject: FW: Mapped petroleum wells near Gentryville, IN

Hi Brian-
A few months ago, I sent the email below. If you responded, I don't think I got it. Anyway, do think there will be any issues? Thanks for your help!

-Neal

Neal Bennett, PWS
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p 317-713-4615 | f 317-713-4616
NBennett@bfsengr.com | www.BFSEngr.com



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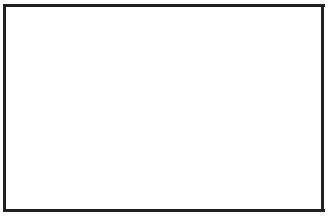
From: Neal Bennett
Sent: Friday, August 21, 2020 10:13 AM
To: 'Royer, Brian' <BRoyer@dnr.IN.gov>
Cc: 'jadams@dnr.IN.gov' <jadams@dnr.IN.gov>
Subject: Mapped petroleum wells near Gentryville, IN

Bran-
I am working on an environmental document for the Bridge Rehab of SR 62 over Buckhorn Creek, just south of Gentryville, IN in Spencer County. During my desktop review of the project area, some petroleum exploration wells were found to be mapped nearby. Can you tell me if you think our project could be affected by the presence of those wells? I have attached the IGS report that mentions the wells. Let me know if you have any questions. Thank you.

-Neal

Neal Bennett, PWS
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p 317-713-4615 | f 317-713-4616
NBennett@bfsengr.com | www.BFSEngr.com



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: June 23, 2020
Consultation Code: 03E12000-2020-SLI-0902
Event Code: 03E12000-2020-E-08115
Project Name: Des No. 1800914, SR 62 over Buckhorn Creek, Bridge Rehabilitation

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-0902

Event Code: 03E12000-2020-E-08115

Project Name: Des No. 1800914, SR 62 over Buckhorn Creek, Bridge Rehabilitation

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: The Indiana Department of Transportation (INDOT) - Vincennes District proposes a project to perform bridge rehabilitation to the SR 62 bridge (Structure No. 062-74-06164 B, NBI 022130) over Buckhorn Creek (Des No 1800914), 1.4 miles south of SR 162. The purpose of this project is to address the condition of the bridge deck, minor deterioration to the beams and abutments, and erosion of the Buckhorn Creek stream channel as noted in the Bridge Inspection Report, performed on May 10, 2019, for Structure No. 062-74-06164 B. The current proposed project would entail milling and repaving the existing bridge deck and approaches and constructing a Latex Modified Cement Concrete deck overlay. The bridge overlay over the spalled and cracked approaches will be wedged and leveled. Riprap and riprap turnouts will be placed around abutments to prevent further erosion. The longitudinal cracking on the beams and abutments will be patched with concrete, and galvanized anodes will be installed. The bridge drainage system will be rehabilitated by concrete patching and the installation of cathodic protection. No tree clearing is needed for access to the project area. Permanent lighting will not be used for this project (per project designer). Temporary lighting may be used during nighttime work. The construction limits will stay within the existing edge of the pavement. A review of the USFWS database, on February 10, 2020, did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The bat inspection performed on February 6, 2020, by BF&S, Inc., was negative. Suitable summer habitat is located adjacent to the project area to the southeast, however, no acres will be removed. The proposed bridgework is anticipated to begin in 2023-2024.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.094519887487166N87.03689121086077W

Counties: Spencer, IN

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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.

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

Mammals

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* 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 *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ 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

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: March 05, 2020
Consultation Code: 03E12000-2020-I-0902
Event Code: 03E12000-2020-E-04443
Project Name: Des No. 1800914, SR 62 over Buckhorn Creek, Bridge Rehabilitation

Subject: Concurrence verification letter for the 'Des No. 1800914, SR 62 over Buckhorn Creek, Bridge Rehabilitation' 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. 1800914, SR 62 over Buckhorn Creek, Bridge Rehabilitation** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

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

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

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

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

- Gray Bat, *Myotis grisescens* (Endangered)

Project Description

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

Name

Des No. 1800914, SR 62 over Buckhorn Creek, Bridge Rehabilitation

Description

The Indiana Department of Transportation (INDOT) - Vincennes District proposes a project to perform bridge rehabilitation to the SR 62 bridge (Structure No. 062-74-06164 B, NBI 022130) over Buckhorn Creek (Des No 1800914), 1.4 miles south of SR 162. The purpose of this project is to address the condition of the bridge deck, minor deterioration to the beams and abutments, and erosion of the Buckhorn Creek stream channel as noted in the Bridge Inspection Report, performed on May 10, 2019, for Structure No. 062-74-06164 B. The current proposed project would entail milling and repaving the existing bridge deck and approaches and constructing a Latex Modified Cement Concrete deck overlay. The bridge overlay over the spalled and cracked approaches will be wedged and leveled. Riprap and riprap turnouts will be placed around abutments to prevent further erosion. The longitudinal cracking on the beams and abutments will be patched with concrete, and galvanized anodes will be installed. The bridge drainage system will be rehabilitated by concrete patching and the installation of cathodic protection. No tree clearing is needed for access to the project area. Permanent lighting will not be used for this project (per project designer). Temporary lighting may be used during nighttime work. The construction limits will stay within the existing edge of the pavement. A review of the USFWS database, on February 10, 2020, did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The bat inspection performed on February 6, 2020, by BF&S, Inc., was negative. Suitable summer habitat is located adjacent to the project area to the southeast, however, no acres will be removed. The proposed bridgework is anticipated to begin in 2023-2024.

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?

   No

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

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

   [2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the national consultation FAQs.

   Yes

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

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

   No

10. 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

11. 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

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

    No

13. Does the project include slash pile burning?

    No

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

    Yes

15. 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

16. 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

    - *Bridge Assessment Form for IPaC_2.6.2020.pdf https://ecos.fws.gov/ipac/project/HAGIN2VYBZFNTOVK5GPJ2KEZPQ/projectDocuments/20623659*

17. 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

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

    No

19. 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

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

    Yes

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

    Yes

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

    No

23. 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?

    Yes

24. Will the activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season[1]?

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

    No

25. 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

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

    No

27. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

28. 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

29. **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

30. **Lighting AMM 1**
    Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

    Yes

Project Questionnaire

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

   No

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

   Yes

3. Please describe the proposed bridge work:

   The current proposed project would entail milling and repaving the existing bridge deck and approaches and constructing a Latex Modified Cement Concrete deck overlay. The bridge overlay over the spalled and cracked approaches will be wedged and leveled. Riprap and riprap turnouts will be placed around abutments to prevent further erosion. The longitudinal cracking on the beams and abutments will be patched with concrete, and galvanized anodes will be installed. The bridge drainage system will be rehabilitated by concrete patching and the installation of cathodic protection.

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

   2023-2024

5. Please enter the date of the bridge assessment:
   02/06/2020

Avoidance And Minimization Measures (AMMs)

This determination key result includes the committment 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.

LIGHTING AMM 1

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

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

This key was last updated in IPaC on 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.

From:	Falls, Ryan G
To:	Hannah Bays
Cc:	Wright, Kristy
Subject:	RE: USFWS IPaC Review for DES # 1800914 - nlaa
Date:	Monday, March 9, 2020 12:12:12 PM
Attachments:	image004.jpg image005.jpg

The document's finding of May Effect, NLAA-With AMMs for DES 1800914 has been deemed sufficient. It has been verified and submitted to USFWS for their 14 working calendar day review period. The NEPA document submittal may not occur until this review period has ended. The Official Species List, Consistency Letter, and Concurrence Verification Letter are all now immediately available for your use. It is suggested that these documents be downloaded at this time. This concludes the IPaC phase of coordination with the Vincennes environmental office.

The 14 day review period correlates with the date on the letter (3/5/2020), not this email's date. Thank you.

Ryan Falls
Capital Program Management-Senior Environmental Manager Supervisor
Indiana Department of Transportation
3650 South US Highway 41
Vincennes, IN 47591
Office: 812-895-7326
Cell: 812-582-1387
Email: rfalls@indot.IN.gov
INDOT4U

Ryan Scott

From: Ryan Scott
Sent: Monday, December 6, 2021 12:41 PM
To: dscherry@nspencer.k12.in.us
Subject: Early Coordination Letter_Des. No. 1800914_SR 62 over Buckhorn Creek Bridge Rehabilitation, Spencer County, IN
Attachments: SR 62 over Buckhorn Creek_1800914_North Spencer County School Corp.pdf

Superintendent Scherry,

Please see the attached Early Coordination Letter for your review. Please respond within 30-days should you have any comments.

Thank you,

Ryan Scott
Environmental Services

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p 317-713-4615 | f 317-713-4616
RScott@bfsengr.com | www.BFSEngr.com

APPENDIX D

SECTION 106 DOCUMENTATION

Date: 7/21/2021

Project Designation Number: 1800914

Route Number: SR 62

Project Description: Bridge Project over Buckthorn Creek, 1.4 miles south of SR 162

The Indiana Department of Transportation (INDOT)/Vincennes District and Federal Highway Administration (FHWA) propose the rehabilitation of the existing structure (Bridge No. 62-74-06164B/NBI No. 22130) that carries SR 62 over Buckthorn Creek in Jackson Township, Spencer County. The bridge deck and approaches will be milled and repaved with a latex modified cement concrete deck overlay installed. The bridge overlay will be wedged and leveled over the spalled and cracked approaches. Riprap and riprap turnouts will be placed around abutments to prevent further erosion. The longitudinal cracking on the beams and abutments will be patched with concrete, and galvanized anodes will be installed. The bridge drainage system will be rehabilitated through concrete patching and the installation of cathodic protection. The guardrail will be replaced in-kind with new guardrail that meets Midwest Guardrail System (MGS) standards.

The existing bridge was constructed in 1922 and was reconstructed in 1980. The project is approximately 0.43 mile long. Approximately 0.66 acre of permanent right-of-way acquisition is anticipated for guardrail replacement and construction access. The purpose of the project is to address the ongoing wearing surface degradation of Bridge No. 62-74-06164B/NBI No. 22130 and to continue providing a structurally and hydraulically sufficient bridge to perpetuate vehicular traffic crossing at this location.

Approximately 0.66 acre of right-of-way (ROW) will need to be acquired as part of this project.

Feature crossed (if applicable): Buckthorn Creek

City/Township: Jackson Township

County: Spencer

Information reviewed (please check all that apply):

☐ General project location map ☑ USGS map ☑ Aerial photograph ☑ Interim Report

☐ Written description of project area ☑ General project area photos ☑ Soil survey data

☐ Previously completed historic property reports ☑ Previously completed archaeology reports

☑ Bridge Inspection Information ☑ SHAARD ☑ SHAARD GIS ☑ Streetview Imagery

Other (please specify): Indiana Historic Building, Bridges, and Cemeteries Map (IHBBCM); County GIS data (accessed via https://spencerin.wthgis.com/); Bridge Inspection Application System (BIAS); 2010 INDOT-sponsored *Historic Bridge Inventory* (HBI)Project information provided by BFS Engineering, dated June 10, 2021 and on file at INDOT-CRO

Kovacs, Jason and Jeff Laswell
2021 Phase Ia Archaeological Reconnaissance Survey for the S.R. 62 Bridge Project, over Buckhorn Creek, 1.4 miles south of SR 162 in Spencer County, Indiana (Des. No. 1800914). Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

Please specify all applicable categories and condition(s) (conditions that are applicable are highlighted):

Please note: INDOT CRO's determination of A-6 was based on the original project scope, which included guardrail work. Guardrail work is no longer a part of the scope of this project, so A-6 does not apply.

A-6. Repair, replacement, or upgrade of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils.

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.

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

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

Additional Comments:

Above-ground Resources

An INDOT Cultural Resources Office (CRO) historian who met the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for

Spencer County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The *Spencer County Interim Report* (2001; Jackson Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map. The SHAARD information was checked against the respective interim report hard-copy maps. No surveyed Jackson Township resources were recorded within 0.25 mile of the project location.

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. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

Land surrounding the project area is rural/wooded with agricultural fields. No above-ground resources that are or will be fifty years of age by the time of the proposed 2022 project letting are within 0.25 mile of the project location.

According to BIAS, the subject bridge (Bridge No. 62-74-06164B/NBI No. 22130) is a prestressed concrete box bean or girder structure constructed in 1922 and reconstructed in 1980. The bridge was not included in the 2009 INDOT-sponsored *Historic Bridge Inventory* due to its construction after 1965, which was the cutoff year for inclusion in the inventory. On November 2, 2012, the Advisory Council on Historic Preservation (ACHP) issued *the Program Comment for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges* (*Program Comment*). The *Program Comment* relieves federal agencies from the Section 106 requirement to consider the effects of undertakings on most concrete and steel bridges built after 1945. On March 19, 2013, federal agencies were approved to use the *Program Comment* for Indiana projects.

The *Program Comment* applies for this bridge because it has not been previously listed in or determined eligible for listing in the National Register of Historic Places and it is not located in or adjacent to a historic district (Section IV.A of the *Program Comment*). As an example of a prestressed concrete box bean or girder structure, this bridge is also not one of the types to which the *Program Comment* does not apply (arch bridges, truss bridges, bridges with movable spans, suspension bridges, cable-stayed bridges, or covered bridges [Section IV.B]). Additionally, this bridge has not been identified as having exceptional significance for association with a person or event, being a very early or particularly important example of its type in the state or the nation, having distinctive engineering or architectural features that depart from standard designs, or displaying other elements that were engineered to respond to a unique environmental context (Section IV.C). This bridge also has not been identified as having some exceptional quality. Because the above criteria from the *Program Comment* have been met, no individual consideration under Section 106 is required for Bridge No. 62-74-06164B/NBI No. 22130.

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

Archaeological Resources

An INDOT Cultural Resources Office (CRO) archaeologist, who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61, reviewed the archaeological reconnaissance report prepared for this project (Kovacs and Laswell 2021) and approved of its results and recommendations. The archaeological records check found that no portions of the project area had been previously investigated and that no archaeological sites are within or adjacent to the project limits. The reconnaissance examined a 5.3-acre survey area through a combination of visual inspection of obviously disturbed areas (i.e. roadside ditches), pedestrian

survey of agricultural fields, and shovel testing areas with less than 30% visibility. Four shovel probes were excavated on natural rises within a riparian floodplain during the reconnaissance. No archaeological sites were identified and no further work was recommended. Therefore, there are no archaeological concerns.

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

INDOT Cultural Resources staff reviewer(s): Susan Branigin 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 INVESTIGATION

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

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

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: March 19, 2020

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

From: Hannah Bays
Butler, Fairman and Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240
hbays@bfsengr.com

Re: RED FLAG INVESTIGATION
DES #1800914, State Project
Bridge Rehabilitation
State Road (SR) 62 over Buckhorn Creek, 1.4 miles south of SR 162
Spencer County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) - Vincennes District proposes a project to perform bridge rehabilitation to the SR 62 bridge over Buckhorn Creek. The purpose of this project is to address the condition of the bridge deck, minor deterioration to the beams and abutments, and erosion of the Buckhorn Creek stream channel for Structure No. 062-74-06164. The current proposed project would entail milling and repaving the existing bridge deck and approaches and constructing a Latex Modified Cement Concrete deck overlay. The bridge overlay over the spalled and cracked approaches will be wedged and leveled. Riprap and riprap turnouts will be placed around abutments to prevent further erosion. The longitudinal cracking on the beams and abutments will be patched with concrete, and galvanized anodes will be installed. The bridge drainage system will be rehabilitated by concrete patching and the installation of cathodic protection.

Bridge and/or Culvert Project: Yes ☒ No ☐ **Structure** # 062-74-06164 B

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 __N/A___ **Permanent** ☐ # Acres _N/A____

Type of excavation: Excavation will occur to a depth less than 2 feet for replacement of the bridge deck and approaches. Riprap and riprap turnouts may require excavation up to 1 foot for restoration and placement.

Maintenance of traffic: Traffic will be maintained throughout construction using a detour as the bridge will be closed to motorists.

Work in waterway: Yes ☒ No ☐ **Below ordinary high water mark:** Yes ☒ No ☐

Any other factors influencing recommendations: The project description is subject to additional changes as preliminary design progresses.

INFRASTRUCTURE TABLE AND SUMMARY

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

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

Explanation: No infrastructure resources were identified with the 0.5 mile search radius.

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	**13**
Canal Structures – Historic	**N/A**	Lakes	**8**
NPS NRI Listed	**N/A**	Floodplain – DFIRM	**4**
NWI-Lines	**4**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**N/A**	Sinkhole Areas	**N/A**
Rivers and Streams	**12**	Sinking-Stream Basins	**N/A**

Explanation:

NWI – Wetlands: A total of thirteen (13) NWI Wetland polygons are located within the 0.5 mile search radius. Two (2) NWI Wetland polygons are mapped immediately east of the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

Lakes: Eight (8) Lake polygons are located within the 0.5 mile search radius. The closest lake polygon is located approximately 0.04 mile southeast of the project area. No impact is expected.

Floodplain – DFIRM: Four (4) Floodplain – DFIRM polygons are located within the 0.5 mile search radius. The project area is located within one of the floodplain polygons. Coordination with INDOT Ecology and Waterway Permitting will occur.

NWI – Lines: Four (4) NWI Line segments are located within the 0.5 mile search radius. One (1) NWI Line segment is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

Rivers and Streams: A total of twelve (12) stream segments are located within the 0.5 mile search radius. One (1) stream segment, Buckhorn Creek, is located in the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY – The project area is not located within an Urbanized Area Boundary.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	**15**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:

Petroleum Well: A total of fifteen (15) petroleum wells are located within the 0.5 mile search radius. The closest petroleum well is mapped approximately 0.09 mile southwest of the project area. No impact is expected.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	**N/A**	Manufactured Gas Plant Sites	**N/A**
RCRA Generator/ TSD	**N/A**	Open Dump Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Restricted Waste Sites	**N/A**
State Cleanup Sites	**N/A**	Waste Transfer Stations	**N/A**
Septage Waste Sites	**N/A**	Tire Waste Sites	**N/A**
Underground Storage Tank (UST) Sites	**N/A**	Confined Feeding Operations (CFO)	**2**
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**

Explanation:

Confined Feeding Operations (CFO): Two (2) CFO's are located within the 0.5 mile search radius. The closest mapped CFO is located 0.17 mile southwest of the project area. According to the most recent inspection report, dated September 9, 2016, the CFO was found to be in compliance. No impacts are expected.

ECOLOGICAL INFORMATION SUMMARY

The Spencer 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. 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 project area is located in a rural agricultural area with tree cover to the southeast. The May 10, 2019 inspection report for Structure No. 062-74-06164 B states that no evidence of bats was seen or heard under the bridge. range-wide programmatic consultation for the Indiana bat and Northern long-eared bat will be completed according to the most recent, "Using the USFW's IPaC System for Listed Bat Consultation for INDOT Projects".

Although bats were not identified, either birds or nests were observed during the May 10, 2019 bridge inspection. Coordination with the INDOT Environmental Services Project Manager will occur.

RECOMMENDATIONS SECTION

INFRASTRUCTURE: N/A

WATER RESOURCES:

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

Two (2) NWI – Wetland polygons adjacent to the project area.

The project area is located in a Floodplain – DFIRM polygon. (Coordination only)

Four (4) NWI – Line segments are located in the project area.

One (1) stream segment, Buckhorn Creek, is located in the project area.

URBANIZED AREA BOUNDARY: N/A

MINING /MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL 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 USFW's IPaC System for Listed Bat Consultation for INDOT Projects".

Nicole Fohey-Breting
DocuSigned by:
Nicole Fohey-Breting
Date: 2020.03.23 17:49:30 -04'00'

INDOT Environmental Services concurrence: _____(Signature)

Prepared by:
Hannah Bays
Environmental Scientist
Butler, Fairman and Seufert, Inc.

Graphics:

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

SITE LOCATION: YES

INFRASTRUCTURE: N/A

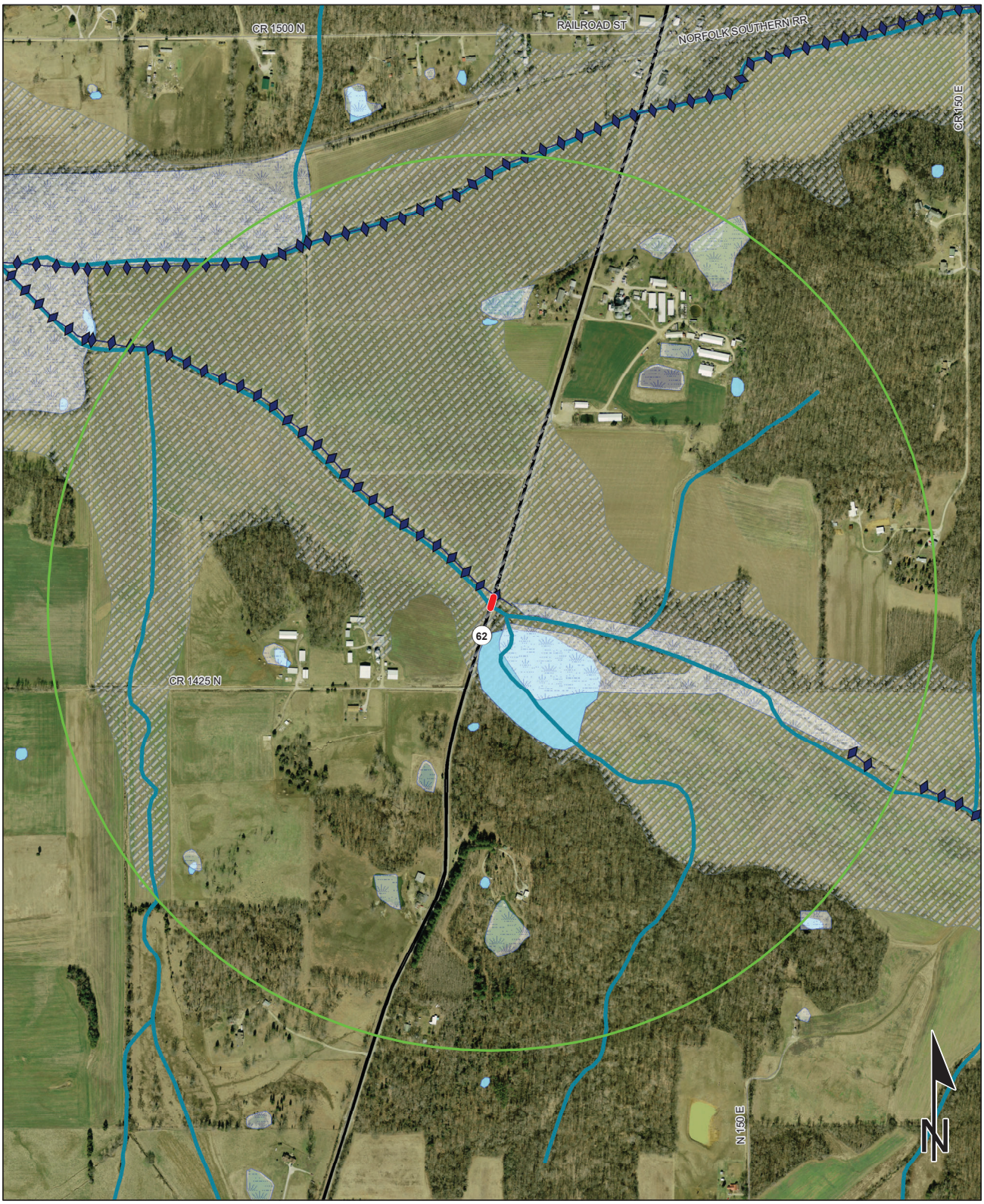
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Water Resources
SR 62 over Buckhorn Creek, 1.4 miles south of State Road 162
Des. No. 1800914, Bridge Rehabilitation
Spencer County, Indiana



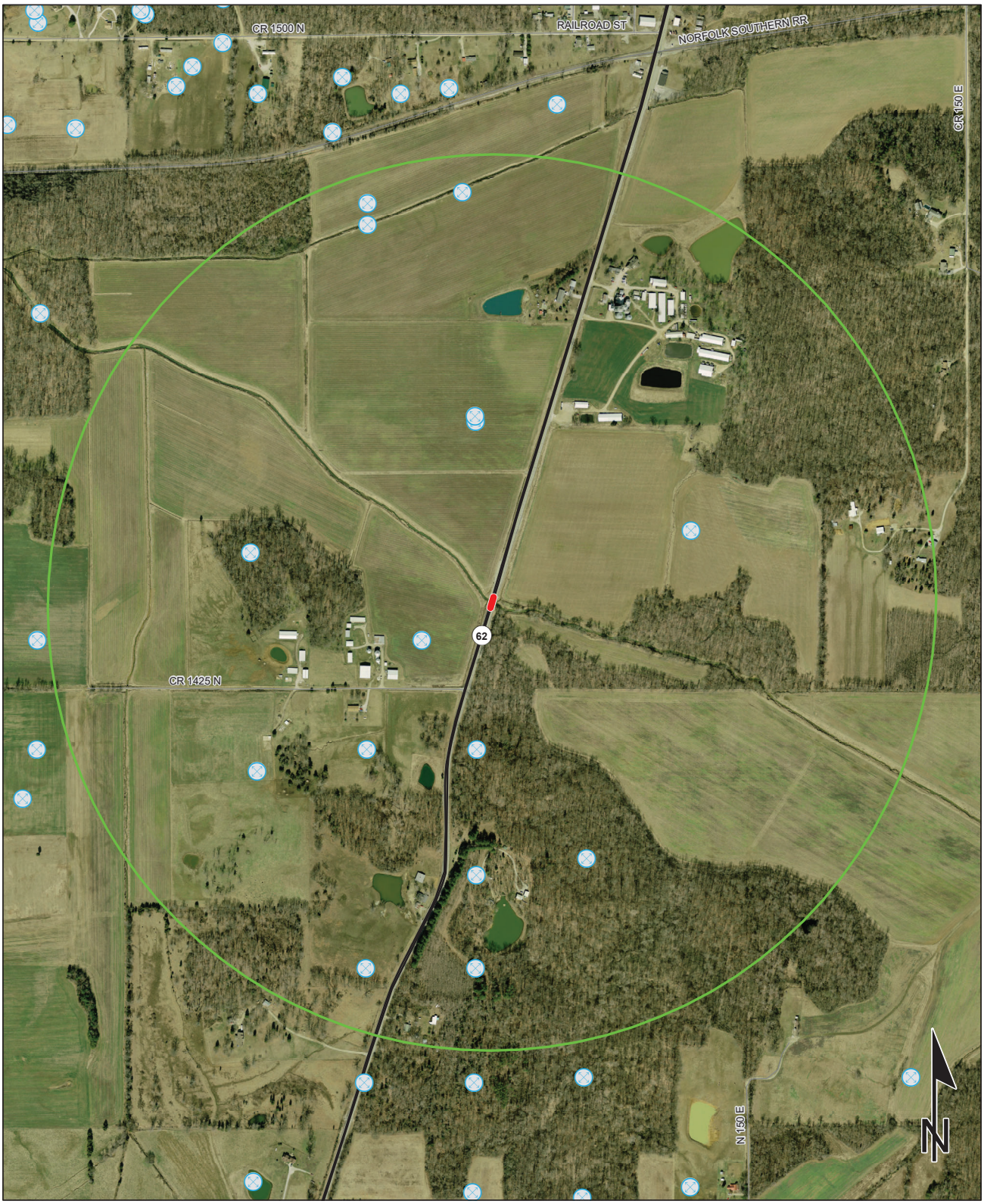
0.1 0.05 0 0.1 Miles

Sources:
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.

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

Red Flag Investigation - Mining/Mineral Resources
SR 62 over Buckhorn Creek, 1.4 miles south of State Road 162
Des. No. 1800914, Bridge Rehabilitation
Spencer County, Indiana



0.1 0.05 0 0.1 Miles

Sources:
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.

- Oil and Gas Wells
- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Hazardous Material Concerns
SR 62 over Buckhorn Creek, 1.4 miles south of State Road 162
Des. No. 1800914, Bridge Rehabilitation
Spencer County, Indiana

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

0.1 0.05 0 0.1 Miles

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Sources:
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

Indiana County Endangered, Threatened and Rare Species List

County: Spencer

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Lampsilis ovata	Pocketbook			G5	S2
Ligumia recta	Black Sandshell			G4G5	S2
Plethobasus cyphyus	Sheepnose	LE	SE	G3	S1
Pleurobema coccineum	Round Pigtoe			G4G5	S3
Pleurobema cordatum	Ohio Pigtoe		SSC	G4	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Fish					
Acipenser fulvescens	Lake Sturgeon		SE	G3G4	S1
Etheostoma squamiceps	Spottail Darter			G4G5	S2S3
Amphibian					
Acris blanchardi	Blanchard's Cricket Frog		SSC	G5	S4
Reptile					
Nerodia erythrogaster neglecta	Copperbelly Water Snake	PS:LT	SE	G5T3	S2
Opheodrys aestivus	Rough Green Snake		SSC	G5	S3
Bird					
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ictinia mississippiensis	Mississippi Kite		SSC	G5	S1B
Lanius ludovicianus	Loggerhead Shrike		SE	G4	S3B
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Sternula antillarum athalassos	Interior Least Tern	LE	SE	G4T2Q	S1B
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Myotis grisescens	Gray Bat	LE	SE	G4	S1
Sylvilagus aquaticus	Swamp Rabbit		SE	G5	S1
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Acalypha deamii	Mercury		WL	G4?	S3
Calycocarpum lyonii	Cup-seed		ST	G5	S2
Carex bushii	Bush's Sedge		ST	G4	S2
Carex socialis	Social Sedge		ST	G4	S2
Catalpa speciosa	Northern Catalpa		SR	G4?	S3
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Clitoria mariana	Maryland Butterfly-pea		WL	G5	S3
Crataegus viridis var. viridis	Green Hawthorn		ST	G5T5	S2
Croton michauxii var. elliptica	Elliptical Rushfoil		SE	G5	S1
Cyperus acuminatus	Short-point Flatsedge		WL	G5	S3

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

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

Indiana County Endangered, Threatened and Rare Species List

County: Spencer

Species Name	Common Name	FED	STATE	GRANK	SRANK
Cyperus pseudovegetus	Green Flatsedge		SR	G5	S2
Didiplis diandra	Water-purslane		SE	G5	S1
Eleocharis wolfii	Wolf Spikerush		ST	G3G5	S2
Fimbristylis annua	Annual Fimbry		SE	G5	S1
Hypericum virgatum	Coppery St. John's-wort		ST	G4?	S2
Iresine rhizomatosa	Eastern Bloodleaf		ST	G5	S3
Isoetes melanopoda	Blackfoot Quillwort		ST	G5	S2
Ludwigia decurrens	Primrose Willow		WL	G5	S3
Micranthes virginiensis	Virginia Saxifrage		WL	G5	S3
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Passiflora incarnata	Purple Passion-flower		WL	G5	S3
Perideridia americana	Eastern Eulophus		SE	G4	S1
Phlox pilosa ssp. deamii	Deam's phlox		SE	G5T3T4	S1
Platanthera peramoena	Purple Fringeless Orchis		WL	G5	S3
Poa wolfii	Wolf Bluegrass		SR	G4	S3
Prenanthes aspera	Rough Rattlesnake-root		SR	G4?	S3
Ranunculus pusillus	Pursh Buttercup		SE	G5	S1
Rhexia mariana var. mariana	Maryland Meadow Beauty		ST	G5T5	S1
Rhynchospora corniculata var. interior	Short-bristle Horned-rush		ST	G5TNR	S2
Rorippa aquatica	Lake Cress		SE	G4?	S1
Scutellaria parvula var. australis	Southern Skullcap		WL	G4T4?	S2
Selaginella apoda	Meadow Spike-moss		WL	G5	S1
Stenanthium gramineum	Eastern Featherbells		ST	G4G5	S1
Strophostyles leiosperma	Slick-seed Wild-bean		WL	G5	S3
Thalictrum pubescens	Tall Meadowrue		SR	G5	S3
Trifolium reflexum var. glabrum	Buffalo Clover		SE	G5T2T4Q	S1
High Quality Natural Community					
Barrens - clay	Clay Barrens		SG	GNR	S1
Forest - flatwoods dry	Dry Flatwoods		SG	G2?	S2
Forest - floodplain mesic	Mesic Floodplain Forest		SG	G3?	S1
Forest - floodplain wet	Wet Floodplain Forest		SG	G3?	S3
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3
Forest - upland dry Southwestern Lowlands	Southwestern Lowlands Dry Upland Forest		SG	GNR	S1
Forest - upland dry-mesic Southwestern Lowlands	Southwestern Lowlands Dry-mesic Upland Forest		SG	GNR	S1
Other Significant Feature					
Freshwater Mussel Concentration Area	Mussel Bed		SG	G3	SNR

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

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

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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

Ryan Scott

From: Hannah Deguch
Sent: Friday, May 7, 2021 6:52 AM
To: Ryan Scott
Subject: Fwd: RFI Addendum for SR 62 over Buckhorn Creek (BFS No 6415.0302 / Des No 1800914)

They replied again, see below

Get Outlook for Android

From: INDOT esd.sam <esd.sam@indot.IN.gov>
Sent: Friday, May 7, 2021 6:48:59 AM
To: Hannah Deguch <HBays@bfsengr.com>
Subject: RE: RFI Addendum for SR 62 over Buckhorn Creek (BFS No 6415.0302 / Des No 1800914)

Hannah –

I don't think I specifically addressed Ryan's questions about the ROW. No, the ROW doesn't constitute the need for an addendum if there are no additional impacts.

Thanks!
Marlene

Marlene Mathas, CHMM
Site Assessment & Management (SAM) Team Lead
Environmental Policy Office
INDOT Environmental Services Division
PHONE # (317) 694-8284
Office Hours: 7:30 AM to 3:30 PM

The Site Assessment and Management (SAM) Manual can be found at https://www.in.gov/indot/4170.htm
Be sure to refer to the updated information in the SAM Manual for document preparation and submission.

From: Hannah Deguch <HBays@bfsengr.com>
Sent: Thursday, May 06, 2021 7:29 AM
To: INDOT esd.sam <esd.sam@indot.IN.gov>
Subject: FW: RFI Addendum for SR 62 over Buckhorn Creek (BFS No 6415.0302 / Des No 1800914)

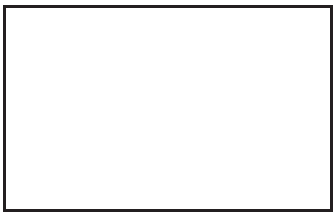
Good morning,

I am requesting your evaluation of a change in project ROW and its need for and RFI addendum. Please see the below email from Ryan for more details.

I appreciate your attention and time!

Hannah Deguch
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302 |
p 317-713-4615 | f 317-713-4616
HBays@bfsengr.com | www.BFSEngr.com



From: Ryan Scott <RScott@bfsengr.com>
Sent: Tuesday, May 4, 2021 5:16 PM
To: Hannah Deguch <HBays@bfsengr.com>
Subject: RFI Addendum for SR 62 over Buckhorn Creek (BFS No 6415.0302 / Des No 1800914)

Hannah,

Neal asked that I manage this project amendment. The project area for this one has expanded to the north and south of the originally studied limits due to INDOT wanting to secure 50' either side of the roadway centerline where guardrail is present. For reference, I've attached the proposed ROW aerial, as well as the original project aerial.

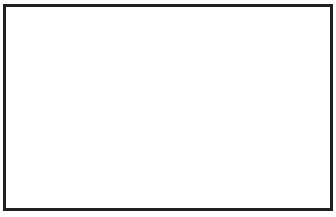
It appears you completed the original RFI, which accounted for no right-of-way acquisition. I estimate a total of 0.66 acre of new permanent ROW will now be required. The only other thing I noticed in the original RFI that needs updating is the excavation depth for the riprap to be placed around the abutments (1-foot listed, but plans show a 2-foot depth). So, the proposed impact areas from construction activities are not changing, but ROW is being purchased for contractor access to the bridge for riprap placement, and for a future/separate guardrail replacement project.

Could you please reach out to SAM and see if we need to complete an RFI addendum? Hopefully, they'll say that the added ROW can be described in the environmental document and no RFI addendum is warranted.

Thank you!

Ryan Scott
Environmental Services

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p 317-713-4615 | f 317-713-4616
RScott@bfsengr.com | www.BFSEngr.com



APPENDIX F

WATER AND ECOLOGICAL RESOURCES

APPENDIX D: Bridge/Structure Assessment Form

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

DOT Project #	Water Body	Date/Time of Inspection	Within 1,000ft of suitable bat habitat (circle one)
1800914	Buckhorn Creek	7/6/20 1:10 pm	(Yes) No

Route	County	Federal Structure ID
SR 62	Spencer	062-74-06164 B

NBI: 022130

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

Areas Inspected (Check all that apply)

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

Last Revised May 31, 2017

Vertical surfaces on concrete I-beams							

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

None

Visual (e.g. survey, thermal, emergent etc.)
- Live __number seen
- Dead __number seen

Photo documentation Y/N

Guano
Odor Y/N
Photo documentation Y/N

Staining definitively from bats
Photo documentation Y/N

Audible

Assessment Conducted By: Neal Bennett **Signature(s):** [signature]

District Environmental Use Only: Date Received by District Environmental Manager: _____

DOT Bat Assessment Form Instructions

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

“Waters of the U.S.” Determination Report

Des. No. 1800914

Looking north at Br. 62-74-06164B over Buckhorn Creek
Photo taken 06/01/2020

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240
(317) 713-4615
www.bfsengr.com

August 24, 2021

Prepared By: Ryan L. Scott
Environmental Services

INVESTIGATION FOR INDOT
BRIDGE 62-74-06164B
CARRYING SR 62 OVER BUCKHORN CREEK
1.4 MILES SOUTH OF SR 162
SPENCER COUNTY, INDIANA

“Waters of the U.S.” determination within the study limits for the project.

Approved 10.1.2021 by:

Maryssa Engstrom

"WATERS OF THE U.S." DETERMINATION REPORT
SR 62 over Buckhorn Creek, Spencer County
Preventative Maintenance Project
Des. No. 1800914
Asset ID: 62-74-06164B
Prepared By: Ryan L. Scott
Contact Information: rscott@bfsengr.com / 317-713-4615
Butler, Fairman & Seufert, Inc.
Completed Date: August 24, 2021

Date of Field Investigation: Site Reconnaissance February 6, 2020; Field Investigations June 1, 2020 and June 3, 2021

Project Location: Section 11, Township 5 South, and Range 6 West on the U.S. Geological Survey (USGS) Chrisney, Indiana Quadrangle, within Spencer County, Indiana (see Attachments 3 and 4).

LAT 38.094498 N; LONG -87.036886 W

Project Description:

The project is a bridge rehabilitation of Bridge 62-74-06164B, located on SR 62, approximately 1.4 miles south of SR 162 and 0.7 mile south of the Town of Gentryville, Indiana. The primary purpose of this project is to provide a structure that adequately transports water (Buckhorn Creek) below SR 62. The current bridge's deck and wearing surface received an overall rating of 5 (out of 10), on the May 10, 2019 INDOT Inspection Report primarily due to minor section loss exhibited by longitudinal cracking, intermittent transverse cracking, surface delamination mainly at deck ends, and some surface patching at the north end of the bridge deck and damage to the drain on the west coping. The proposed recommendation for work is the following:

- Perform concrete patching on various locations on the structure, including around the drain hole on the west coping
- Remove portions of bridge deck, perform full and partial depth patching
- Mill existing bridge deck ¼ inch.
- Construction deck overlay
- Install riprap along bridge footers and riprap turnouts
- Wedge and level approach grades

The site is in a portion of Spencer County that formed in silty loess capping formation of shale and sandstone. The primary topography in this portion of the county is nearly level floodplains and terraces on lowlands of the valleys. This topography is evident around the project area, with flat upland terraces surrounding the bridge, with a deep, steeply sloped channelized creek passing beneath the structure. The site is sparsely vegetated with three of the four surrounding quadrants being used for agriculture and one quadrant (southeast) is forested.

Desktop Reference:

Prior to the field investigation, several reference materials were consulted to gain information about the site. The USGS Chrisney, IN quadrangle map was used to determine contours of the site and locate any water bodies in the area, as well as to provide a legal description of the area

(see Attachments 3 and 4). The Soil Conservation Service's [now known as the Natural Resources Conservation Service (NRCS)], 1973 *Soil Survey of Spencer County, Indiana* Panel 14 was consulted to determine if the project area contained any soils listed in either the *Hydric Soils of the United States* manual or the state list of hydric soils publication, along with a description of characteristics displayed by the mapped soil types of the area. The USFWS NWI map was used to find and classify any previously catalogued wetlands in the project area (see Attachment 5). The Indiana Department of Natural Resources' (IDNR) floodplain map was consulted to gain an understanding of historic flood locations and frequency. The project is located within a mapped floodplain (see Attachment 7). All this information provided a background for the hydrologic regime of the area.

National Wetlands Inventory (NWI) Map:

The following is a list of mapped wetlands located either within or near the proposed project limits (see Attachment 5).

- A perennial stream is mapped, classified by Cowardin et. al.[1] as a riverine, lower perennial, unconsolidated bottom, permanently flooded, excavated (R2UBHx) waterway located within the project area. This is Buckhorn Creek that is spanned by SR 62.
- An intermittent stream is mapped, classified by Cowardin as a riverine, intermittent, streambed, seasonally flooded (R4SBC) waterway located southwest of Br. 62-74-06164B. This stream is Unnamed Tributary (UNT) 3 to Buckhorn Creek and discharges into Buckhorn Creek in the southeast quadrant of the bridge.
- A 12.5-acre freshwater forested/shrub wetland is mapped approximately 135 feet southeast and east of the bridge. It is classified by Cowardin as a palustrine, emergent, persistent, semi-permanently flooded (PFO1A) wetland.

Soil Map Data:

According to the NRCS Web Soil Survey website[2] for Spencer County, Indiana (see Attachments 8 – 10); the following soil types are located within the proposed project limits.

Map Abbreviation	Name	Hydric Range
Bo	Bonnie silt loam Frequently flooded, brief duration	100%
Sn	Stendel silt loam, 0-2% slopes Frequently flooded, brief duration	2% (1% - 32%)

USGS 12-digit hydrologic unit code (HUC): 051402010905

Attached Documentation:

- Maps of the project area (state, road, quad, NWI, floodplain, soil, LiDAR, data point)
- Photographs of the project area with orientation map
- Record of Climatological Observations
- Wetland Data Sheets
- Preliminary Jurisdictional Determination (PJD) Form

[1] Cowardin, L.M, V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of Interior, Fish and Wildlife Service, Washington D.C.
[2] https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Field Reconnaissance:

The initial site reconnaissance on February 6, 2020 confirmed that potential "Waters of the U.S." or "Waters of the State" may be present at the project site. Therefore, the site was revisited during the growing season on June 1, 2020 to collect the appropriate seasonal data. The study area limits for this site visit were based on the known project scope at that time and extended approximately 250 feet north and south of the bridge and 50 linear feet east and west of the bridge. The area was investigated by walking transects north to south within the study limits for the project and looking for any visual evidence of stream or wetland characteristics. Wetland boundaries and sampling point locations were recorded in the field using a handheld Global Positioning System (GPS) unit. Based on the daily rainfall data obtained from the National Oceanic and Atmospheric Administration (NOAA), the project location received approximately 0.69 inches of rainfall in the five days preceding the site visit. Ordinary high-water mark (OHWM) and bankfull measurements were taken when present at a water feature. If present, roadside ditches were examined for possible jurisdictional status. Any areas that exhibited wetland characteristics (hydrophytic vegetation, hydrology, and hydric soils) were investigated to determine if the area should be classified as wetland.

After the June 1, 2020 field reconnaissance, it was determined that the project scope would include the purchase of additional right-of-way along SR 62 beyond the original study area limits. Therefore, the site was revisited on June 3, 2021 to collect data for the expanded project study area, which extends 600 feet north of the bridge, 540 feet south of the bridge, and 50 feet east and west of the centerline of SR 62. The expanded project study area also includes County Road (CR) 1425 North extending 100 feet west of SR 62 and 50 feet north of the CR 1425 North centerline. The expanded study limits were investigated by walking transects north to south along both sides of SR 62, and east to west along the north side of CR 1425 North, looking for any visual evidence of stream or wetland characteristics. Wetland boundaries and sampling point locations were recorded in the field using a handheld GPS unit. Based on the daily rainfall data obtained from the NOAA, the project location received approximately 0.80 inches of rainfall in the five days preceding the site visit, and 0.55 inches of rainfall the day of the site visit. OHWM and bankfull measurements were taken when present at a water feature. If present, roadside ditches were examined for possible jurisdictional status. Any areas that exhibited wetland characteristics (hydrophytic vegetation, hydrology, and hydric soils) were investigated to determine if the area should be classified as wetland.

Stream Features:

According to the USGS quadrangle map, there are two (2) mapped streams and two (2) unmapped streams located within the study area.

<u>Buckhorn Creek</u>

The primary stream is known as Buckhorn Creek and is identified as a perennial USGS blue line stream that flows west through the project area, and discharges into Little Pigeon Creek approximately 2.3 miles downstream of the bridge location. Little Pigeon Creek then discharges into the Ohio River. Buckhorn Creek has a drainage area upstream of the study limits of approximately 6.7 square miles (as calculated using the web-tools on the USGS *Indiana StreamStats* website[3]). This waterway falls within the larger Lower Ohio – Little Pigeon Creek Watershed identified by the USGS 12-HUC 051402010905. Buckhorn Creek is classified as a riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) waterway on

[3] https://streamstats.usgs.gov/ss/

the NWI map. There is approximately 100 linear feet of Buckhorn Creek located within the study area for the project. It is of poor quality due to the absence of an intact riparian corridor and lack of sinuosity and riffle-pool complexes since the stream appears to have been channelized in the past and is recovering. The substrate is primarily silt and various sizes of gravel. The stream has an approximate average 47-foot bankfull width and approximate average 2.7-foot bankfull depth. The OHWM depth is approximately 2.0 feet and width is approximately 35.0 feet. All stream measurements were taken at LAT/LONG 38.094542 / -87.037082. During the site visit conducted on June 1, 2020, Buckhorn Creek contained flowing water. Buckhorn Creek is determined to be a perennial stream based on its location below the water table for most of the year with groundwater being its main source of water flow, and a "Waters of the U.S." because it has a defined bed and banks, displays an OHWM, and is a solid blue-line feature on the USGS quadrangle.

UNT 1 to Buckhorn Creek

The second stream is UNT 1 to Buckhorn Creek and is illustrated as a dashed blue line on the USGS quadrangle. UNT 1 to Buckhorn Creek is classified as a riverine, lower perennial, unconsolidated bottom, permanently flooded (R4SBC) waterway on the NWI map. Unnamed Tributary 1 to Buckhorn Creek discharges into Buckhorn Creek in the southeast quadrant of Bridge 62-74-06164B, and Buckhorn Creek discharges into Little Pigeon Creek approximately 2.3 miles downstream of the bridge location. Little Pigeon Creek then discharges into the Ohio River. UNT 1 to Buckhorn Creek is low quality within the study area due to the severe head cutting of the stream profile. It has a 0.214 sq. mi. upstream drainage area and the substrate is primarily silt. There is approximately 30 linear feet of UNT 1 to Buckhorn Creek located within the study area for the project. The stream has an approximate average 14-foot bankfull width and approximate average 4-foot bankfull depth. The OHWM depth is approximately 1.5 foot and width is approximately 6 foot. All stream measurements were taken at LAT/LONG 38.094293 / -87.036684. During the site visit conducted on June 1, 2020, UNT 1 to Buckhorn Creek contained trapped water in its deep pools. UNT 1 to Buckhorn Creek is determined to be an intermittent stream based on its small upstream drainage area and precipitation being its main source of water flow, and a "Waters of the U.S." because it has a defined bed and banks, displays an OHWM, and is a dashed blue line feature on the USGS quadrangle.

UNT 2 to Buckhorn Creek

The third stream is a roadside drainage feature located in the northeast quadrant of Bridge 62-74-06164B. It is an unmapped stream feature identified in this study as UNT 2 to Buckhorn Creek. UNT 2 to Buckhorn Creek has a 0.066 sq. mi. upstream drainage area and is low quality within the study area due to the severe channelization of the stream channel. The substrate is primarily silt. There is approximately 600 linear feet of UNT 2 to Buckhorn Creek located within the study area for the project. The channel has an approximate average 1-foot OHWM depth and 6-foot OHWM width. All stream measurements were taken at LAT/LONG 38.094729 / -87.036684. During the site visit conducted on June 1, 2020, UNT 2 to Buckhorn Creek contained flowing water from field tile drainage input. UNT 2 to Buckhorn Creek is determined to be an intermittent stream based on its small upstream drainage area and precipitation being its main source of water flow, and a "Waters of the U.S." because it has a defined bed and banks and displays an OHWM.

UNT 3 to Buckhorn Creek

The fourth stream is a roadside drainage feature located in the southwest quadrant of Bridge 62-74-06164B. It is an unmapped stream feature identified in this study as UNT 3 to Buckhorn

Creek. UNT 3 to Buckhorn Creek has a 0.072 sq. mi. upstream drainage area and is low quality within the study area due to the severe channelization of the stream channel. The substrate is primarily silt. There is approximately 600 linear feet of UNT 3 to Buckhorn Creek located within the study area for the project. The channel has an approximate average 1-foot OHWM depth and 6-foot OHWM width. All stream measurements were taken at LAT/LONG 38.094343 / -87.037082. During the site visit conducted on June 1, 2020, UNT 3 to Buckhorn Creek contained flowing water from field tile drainage input. UNT 3 to Buckhorn Creek is determined to be an intermittent stream based on its small upstream drainage area and precipitation being its main source of water flow, and a "Waters of the U.S." because it has a defined bed and banks and displays an OHWM.

Table 1: Stream Summary Table

Stream Name	Photo Numbers	Latitude/ Longitude (UTM NAD 83)	OHWM width / depth	USGS ID	Presence of Riffles / Pools	Channel Substrate	Functional Quality	Likely Water of the U.S.	Linear Ft. in Study Area
Buckhorn Creek	1 – 4, 7, 13	38.094498/ -87.036886	35.0 ft. / 2.0 ft.	Perennial (solid blue line)	No	Silt/Gravel	Poor	Yes	100 ft.
UNT 1 to Buckhorn Creek	1, 5 and 6	38.094293/ -87.036684	6.0 ft. / 1.5 ft.	Intermittent (dashed blue line)	No	Silt	Poor	Yes	30 ft.
UNT 2 to Buckhorn Creek	7 – 9	38.094729/ -87.036684	6.0 ft. / 1.0 ft.	Intermittent (no blue line)	No	Silt	Poor	Yes	600 ft.
UNT 3 to Buckhorn Creek	11 – 13	38.094343/ -87.037082	6.0 ft. / 1.0 ft.	Intermittent (no blue line)	No	Silt	Poor	Yes	600 ft.

Wetlands:

Wetland A

During the site investigation it was determined that a roadside ditch (RSD1), located in the southeast quadrant of Bridge 62-74-06164B, contained a small area within it that had hydrophytic vegetation and evidence of frequent and prolonged hydrology. The soil type in this area is mapped as Stendel silt loam, which has a 2% hydric rating. This 0.0075-acre wetland is classified as palustrine, emergent, seasonally flooded (PEMC, Cowardin, et.al.). Wetland A is considered a "Waters of the U.S." since it is located within the 100-year floodplain of Buckhorn Creek and, therefore, is believed to have regular surface water connectivity to a jurisdictional waterway.

Sampling Point 1A was taken in this area contained within the larger RSD1. The soil sample revealed a grayish brown Ap horizon and light grayish brown B horizon containing a depleted matrix[4]. Sampling Point 1A was taken within a linear sparsely vegetated depression within RSD1 that also contained crayfish burrows. The vegetation within the sampling area consisted of dominant hydrophytic community, including *Acer saccharinum* (FACW), *Juglans nigra* (FACU) and *Carya ovata* (FACU) in the tree stratum, and *Cinna arudinacea* (FACW), *Phalaris arundinacea* (FACW), *Impatiens capensis* (FACW) and *Glyceria striata* (OBL) in the herbaceous stratum. As a result, Sampling Point 1A was determined a wetland data point (see photos on Attachments 21 and 22, and Data Sheets on Attachments 27 and 30).

[4] United States Department of Agriculture, Natural Resources Conservation Service. 2018. *Field Indicators of Hydric Soils in the United States, Version 8.2*. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (Eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

Sampling Point 1B was taken directly west, upslope, of Sampling Point 1A, on the backslope between the roadway surface of SR 62 and the bottom elevation of the roadside ditch/wetland. Sampling Point 1B was taken in a representative location of the study area. The soil, hydrology, and vegetation community were representative of the observations made for the majority of the study area. The soil type in this area is mapped as Stendel silt loam, which has a 2% hydric rating. The soil sample revealed a brown Ap horizon and light brownish gray B horizon, lacking the criteria for consideration as hydric. The vegetation within the sampling area consisted of dominant hydrophytic community of *Cinna arundinacea* (FACW) in the herbaceous stratum. Based on the landscape and its adjacency to Buckhorn Creek, the point was evaluated as potentially problematic hydric soils. According to the *Midwest Regional Supplement Ver. 2*, "fluvial sediments within floodplains may be problematic to evaluate hydric characteristics due to seasonal or annual deposition of new material, low iron content, and/or low organic content". Since the data point occurs in the terrace plain of the Buckhorn Creek valley, other parameters were considered to determine if the data point was found to be in a problematic setting. Since Sampling Point 1B did not contain adequate indicators of wetland hydrology, it was determined that the data point was not problematic. Further rationale incudes the sampling point is on a hillslope with an approximate 3% grade. Therefore, any precipitation or runoff flows over the area but is not retained, so wetland hydrology is not present. As a result, Sampling Point 1B is a non-wetland data point (see photos on Attachment 22, and Data Sheets on Attachments 30 – 32).

Wetland B

As a result of walking additional north/south transects for the expanded study area of the project in the southeast quadrant of Bridge 62-74-06164B, one area was encountered that was found to contain hydrophytic vegetation with evidence of saturation at the ground surface level. The soil type in this area is mapped as Stendel silt loam, which has a 2% hydric rating. This 0.17-acre wetland is classified as palustrine, forested, broad-leaved deciduous, temporarily flooded (PFO1A, Cowardin, et.al.). The boundary of this wetland within the study limits was determined based on observed topographical changes and vegetation communities. This wetland appears to extend east/northeast beyond the study area boundary. Wetland B is considered a "Waters of the U.S." since it is located within the 100-year floodplain of Buckhorn Creek and, therefore, is believed to have regular surface water connectivity to a jurisdictional waterway. This assumption is further supported by the general location of Wetland B being identified as a wetland area that is contained within main topography line surrounding Buckhorn Creek and UNT 1 to Buckhorn Creek, as shown on the USGS Chrisney, IN quadrangle (see Attachments 3 and 4).

Sampling Point 2A was taken in this area east of RSD1. The soil sample revealed a grayish brown Ap horizon and light grayish brown B horizon containing a depleted matrix[5]. Sampling Point 2A was taken within a concave area of the forested floodplain of Buckhorn Creek that had visible ground surface saturation with shallow inundation (<1") immediately east of the sampling area. The vegetation within the sampling area consisted of dominant hydrophytic community including *Acer negundo* (FAC), *Juglans nigra* (FACU) and *Carya ovata* (FACU) in the tree stratum, and *Cinna arudinacea* (FACW), *Liquidambar styraciflua* (FACW) and *Fraxinus pennsylvanica* (FACW) in the herbaceous stratum. As a result, Sampling Point 2A was determined a wetland data point (see photos on Attachment 23, and Data Sheets on Attachments 33 and 35).

[5] United States Department of Agriculture, Natural Resources Conservation Service. 2018. *Field Indicators of Hydric Soils in the United States, Version 8.2*. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (Eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

Sampling Point 2B was taken directly south, upslope, of Sampling Point 2A, near an elevated private drive that extends east from SR 62 near the CR 1425 North intersection. Sampling Point 2B was taken in a representative location of the study area. The soil, hydrology, and vegetation community were representative of the observations made for the majority of the study area in the southeast quadrant of Bridge 62-74-06164B. The soil type in this area is mapped as Stendel silt loam, which has a 2% hydric rating. The soil sample revealed a brown Ap horizon and light brownish gray B horizon, lacking the criteria for consideration as hydric. The vegetation within the sampling area consisted of a non-hydrophytic community dominated by *Carya cordiformis* (FACU) and *Acer saccharum* (FACU) in the tree stratum, and *Schedonorus arundinaceus* (FACU) in the herbaceous stratum. Based on the landscape and its adjacency to Buckhorn Creek, the point was evaluated as potentially problematic hydric soils. According to the *Midwest Regional Supplement Ver. 2*, "fluvial sediments within floodplains may be problematic to evaluate hydric characteristics due to seasonal or annual deposition of new material, low iron content, and/or low organic content". Since the data point occurs in the terrace plain of the Buckhorn Creek valley, other parameters were considered to determine if the data point was found to be in a problematic setting. Since Sampling Point 1B did not contain adequate indicators of wetland hydrology, it was determined that the data point was not problematic. Further rationale incudes the sampling point is on a hillslope with an approximate 2% grade. Therefore, any precipitation or runoff flows over the area but is not retained, so wetland hydrology is not present. As a result, Sampling Point 2B is a non-wetland data point (see photos on Attachment 24, and Data Sheets on Attachments 36 and 38).

Northeast Quadrant

As a result of walking additional north/south transects for the expanded study area of the project in the northeast quadrant of Bridge 62-74-06164B, a low lying, gently sloping area was observed along the east side of UNT 2 to Buckhorn Creek that contained some hydrophytic vegetation. The soil type in this area is mapped as Bonnie silt loam, which has a 100% hydric rating.

Sampling Point 3 was taken directly east, of UNT 2 to Buckhorn Creek, on the backslope separating the stream from the adjacent agricultural field. Sampling Point 3 was taken in a representative location of the study area. The soil, hydrology, and vegetation community were representative of the observations made for much of the study area north of Buckthorn Creek. The soil sample revealed a brown Ap horizon and brown B horizon, lacking the criteria for consideration as hydric. Based on the landscape and its adjacency to UNT 2 to Buckhorn Creek, the point was evaluated as potentially problematic hydric soils. According to the *Midwest Regional Supplement Ver. 2*, "fluvial sediments within floodplains may be problematic to evaluate hydric characteristics due to seasonal or annual deposition of new material, low iron content, and/or low organic content". Since the data point occurs in the terrace plain of the Buckhorn Creek valley, other parameters were considered to determine if the data point was found to be in a problematic setting. Since Sampling Point 3 contained adequate indicators of wetland hydrology, dominant vegetation was considered. The sample point did not pass the Dominance Test (50%) or the Prevalence Index (3.06). Further rationale incudes the sampling point was investigated at a time of above average precipitation when 0.8 inches of rain had fallen the five days leading up to the site visit, and 0.55 inches of rain fell the day of the site visit, supporting the positive wetland hydrology findings. As a result, Sampling Point 3 is a non-wetland data point (see photos on Attachment 25, and Data Sheets on Attachments 39 – 41).

Northwest Quadrant

As a result of walking additional north/south transects for the expanded study area of the project in the northwest quadrant of Bridge 62-74-06164B, a relatively flat, vegetated area was observed along the west side of RSD2 that contained some hydrophytic vegetation. The soil type in this area is mapped as Bonnie silt loam, which has a 100% hydric rating.

Sampling Point 4 was taken on the terrace directly west of RSD2. Sampling Point 4 was taken in a representative location of the study area. The soil, hydrology, and vegetation community were representative of the observations made for much of the study area north of Buckhorn Creek. The soil sample revealed a brown Ap horizon and light brownish gray B horizon, lacking the criteria for consideration as hydric. Based on the landscape and its adjacency to Buckhorn Creek, the point was evaluated as potentially problematic hydric soils. According to the *Midwest Regional Supplement Ver. 2*, "fluvial sediments within floodplains may be problematic to evaluate hydric characteristics due to seasonal or annual deposition of new material, low iron content, and/or low organic content". Since Sampling Point 4 contained adequate indicators of wetland hydrology, dominant vegetation was considered. The sample point did not pass the Dominance Test (0%) or the Prevalence Index (3.7). Further rationale incudes the sampling point was investigated at a time of above average precipitation when 0.8 inches of rain had fallen the five days leading up to the site visit, and 0.55 inches of rain fell the day of the site visit, supporting the positive wetland hydrology findings. As a result, Sampling Point 4 is a non-wetland data point (see photos on Attachment 26, and Data Sheets on Attachments 42 – 44).

Southwest Quadrant

Landform observations made in the southwest quadrant of Bridge 62-74-06164B, within the study area for the project, included steeply sloping banks on both sides of UNT 3 to Buckhorn Creek. Due to the presence of the steep slopes, it was determined that any precipitation or runoff in these areas would not be retained. Therefore, no data points were collected in this area of the project.

No additional data points were needed along either bank of Buckhorn Creek since there were no other wetland features observed around the SR 62 / Buckhorn Creek crossing.

The 0.0075 acre (329 sq. ft.) inline emergent wetland (Wetland 1) and 0.022 acre (960 sq. ft.) floodplain forested wetland were the only wetlands determined to be present within the study area at the time of the investigations. Due to their hydrologic connection to Buckhorn Creek, they should be considered jurisdictional under A6 of 40 CFR 230.3 *"All waters adjacent to a water identified as waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, all tributaries of those waters, and those waters including wetlands, ponds, lakes, oxbows, impoundments, and similar waters"*.

Table 2: Data Point Summary Table

Data Point ID	Photo #	Latitude/ Longitude (UTM NAD 83)	Hydrophytic Vegetation Present	Hydric Soil Present	Wetland Hydrology Present	Is the Sampled Area within a Wetland?
1A	19, 20	38.094268/ -87.036826	Yes	Yes	Yes	Yes (Wetland A)
1B	21, 22	38.094311/ -87.036859	Yes	No	No	No
2A	23, 24	38.093326/ -87.037201	Yes	Yes	Yes	Yes (Wetland B)

2B	25, 26	38.093108/ -87.037318	No	No	No	No
3	27, 28	38.096023/ -87.036178	No	No	Yes	No
4	29, 30	38.095629/ -87.036602	No	No	Yes	No

Table 3: Wetland Summary Table

Wetland ID	Photo #	Latitude/ Longitude (UTM NAD 83)	Type	Area Reviewed (Acres)	Functional Quality	Likely Water of the U.S.
Wetland A	19, 20	38.094268/ -87.036826	PEMC	0.0075	Poor	Yes
Wetland B	21, 22	38.093326/ -87.037201	PFO1A	0.17	Average	Yes

Open Water:

No open water features were observed in the investigated area.

Roadside Ditches:

There are four (4) roadside drainage features present in the project area. These features are in all four (4) quadrants of the SR 62 / Buckhorn Creek crossing. All these features flow toward, and terminate at, Buckhorn Creek. Two (2) of these drainages are described as UNT 2 and UNT 3 to Buckhorn Creek. The remaining two (2) are upland drainages constructed to collect and convey storm water from SR 62.

Roadside ditch 1 (RSD1) is located along the east side of SR 62, south of Buckhorn Creek and discharges into the creek in the southeast quadrant of Bridge 62-74-06164B. RSD1 had a defined channel but does not contain an OHWM. Portions of RSD1 contained surface water during the June 3, 2021 site visit as a result of a heavy downpour immediately preceding the field investigation. During the site visit conducted on June 1, 2020, RSD1 did not contain any flowing water. Therefore, it should not be considered a jurisdictional feature. However, there is a portion of RSD1 that is poorly drained and functions by holding water rather than quickly discharging water into Buckhorn Creek. Due to the observation of standing water during both site visits and the presence of hydrophytic vegetation along the margins, a small area within the larger roadside ditch feature was investigated as a wetland. The results of this investigation are detailed in the Wetlands section of this document.

Roadside ditch 2 (RSD2) is located along the west side of SR 62, north of Buckhorn Creek and discharges into the creek in the northwest quadrant of Bridge 62-74-06164B. RSD2 had defined stream banks from the construction of SR 62 but lacked a defined streambed and did not contain an OHWM. Portions of RSD2 contained surface water during the June 3, 2021 site visit as a result of a heavy downpour immediately preceding the field investigation. During the site visit conducted on June 1, 2020, RSD2 did not contain any flowing water. Therefore, it should not be considered a jurisdictional feature.

Table 4: Roadside Ditch Summary Table

Name	Photo Numbers	Latitude/ Longitude (UTM NAD 83)	Channel Substrate	Likely Water of the U.S.	Linear Ft. in Study Area
RSD1	14, 15, 21	38.094268/ -87.036826	Veg/Silt	No	500 ft.
RSD2	16, 17	38.094813/ -87.036892	Veg/Silt	No	600 ft.

Conclusions:

Field observations revealed four (4) waterways (Buckhorn Creek and UNTs 1 – 3 to Buckhorn Creek) within the study area that exhibited a defined channel and OHWM characteristics. Two (2) wetlands found in the upper terrace of the southeast quadrant of the SR 62 crossing of Buckhorn Creek were identified within the study limits of the project area. Buckhorn Creek, its adjacent wetlands (Wetland A and Wetland B), and UNTs 1 – 3 to Buckhorn Creek are the only jurisdictional features identified in the investigation. Every effort should be taken to avoid and minimize impacts to these features. If impacts are necessary, then mitigation may be required. INDOT Environmental Services should be contacted immediately if impacts occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgement based on the guidelines set forth by the Corps.

Acknowledgement:

This waters determination has been prepared based on the best available information, interpreted in the 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 Instruction Guidebook*, and other appropriate agency guidelines.

Ryan L. Scott

Environmental Services
Butler, Fairman, & Seufert, Inc.

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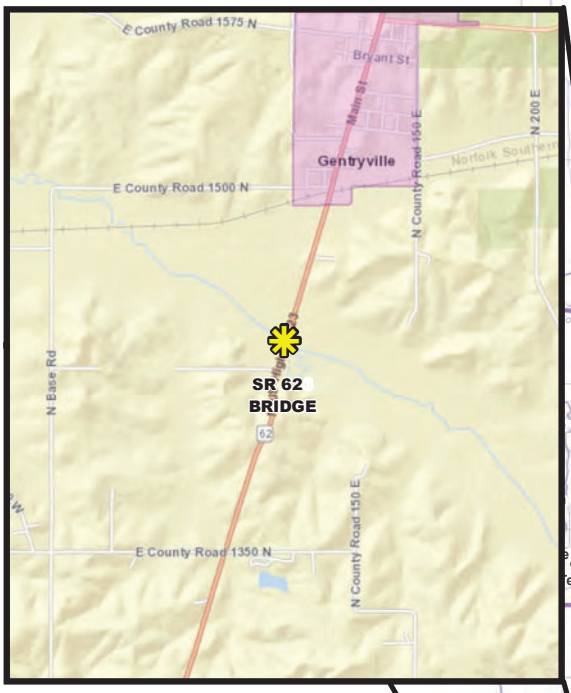


0 2,050 4,100 Feet

Study Area

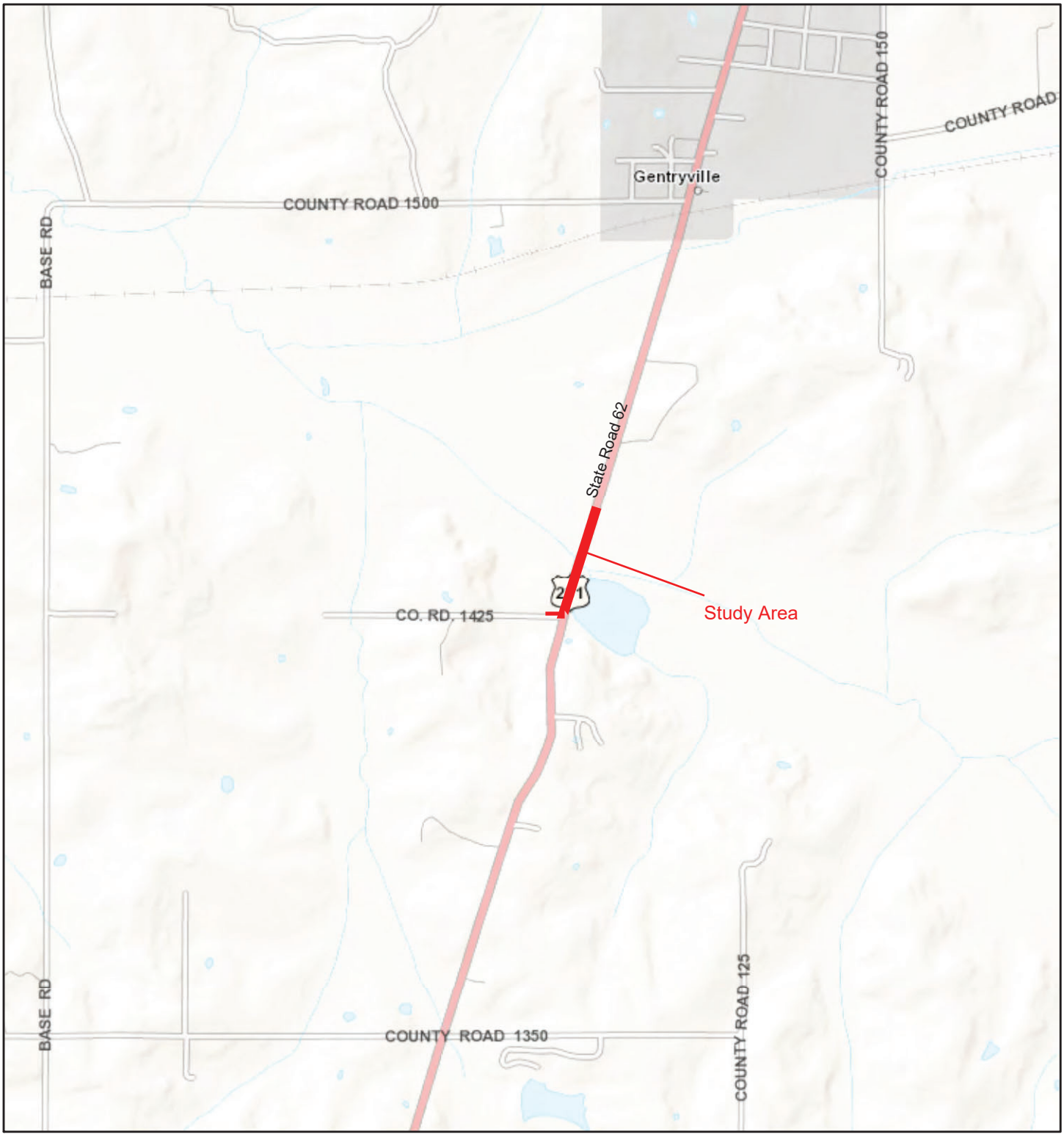
0 80,000 160,000 320,000 Feet

State Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914

Butler Fairman Seufert
CIVIL ENGINEERS

Map Source: Indiana Map

SR 62 over Buckhorn Creek



N

1:16,000

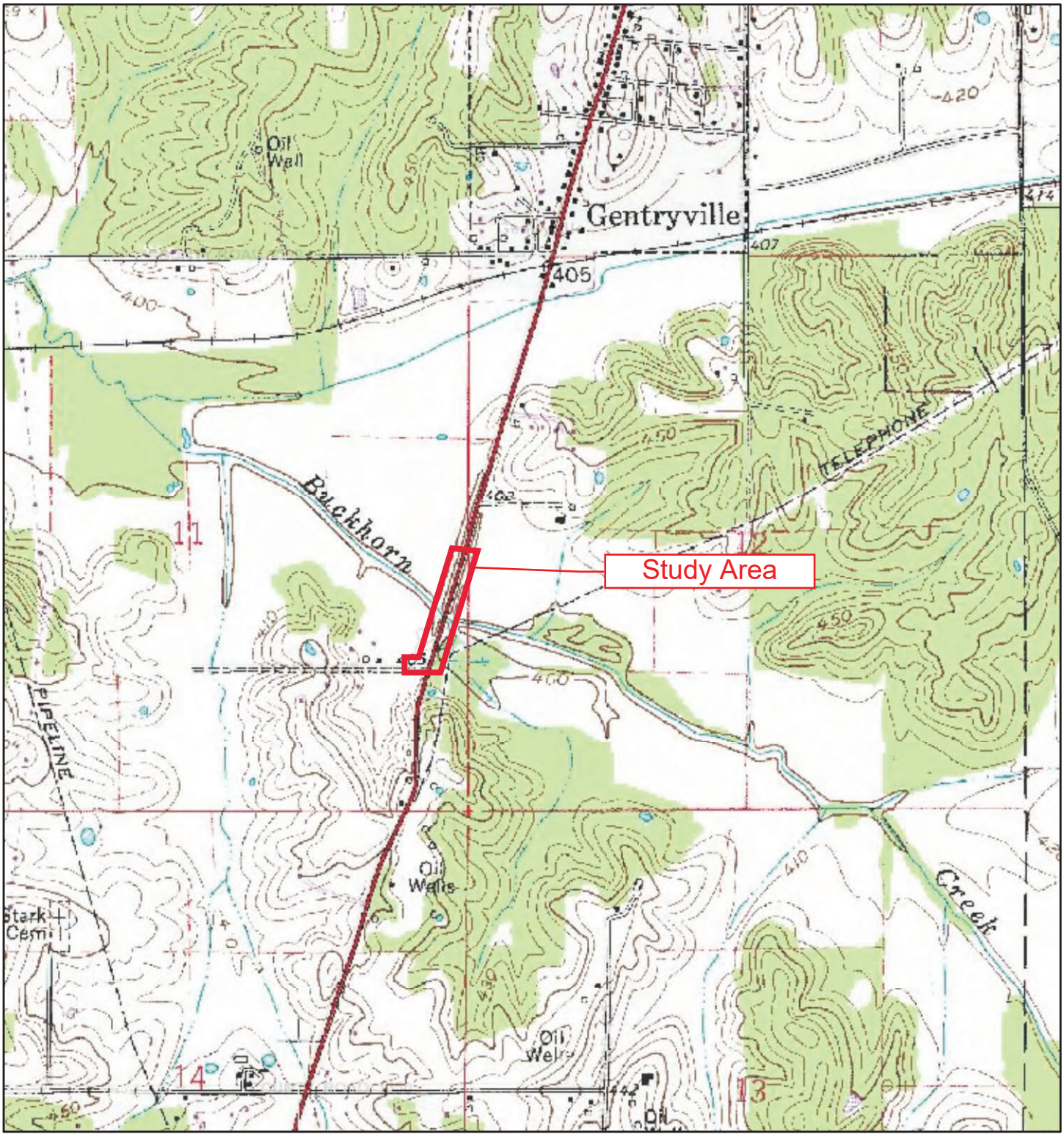
0 0.125 0.25 0.5 mi

0 0.2 0.4 0.8 km

Indiana Road Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914

Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal

SR 62 over Buckhorn Creek



USGS Chrisney, IN Quadrangle Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914
Section 11, Township 5S, Range 6W

1:16,000

N

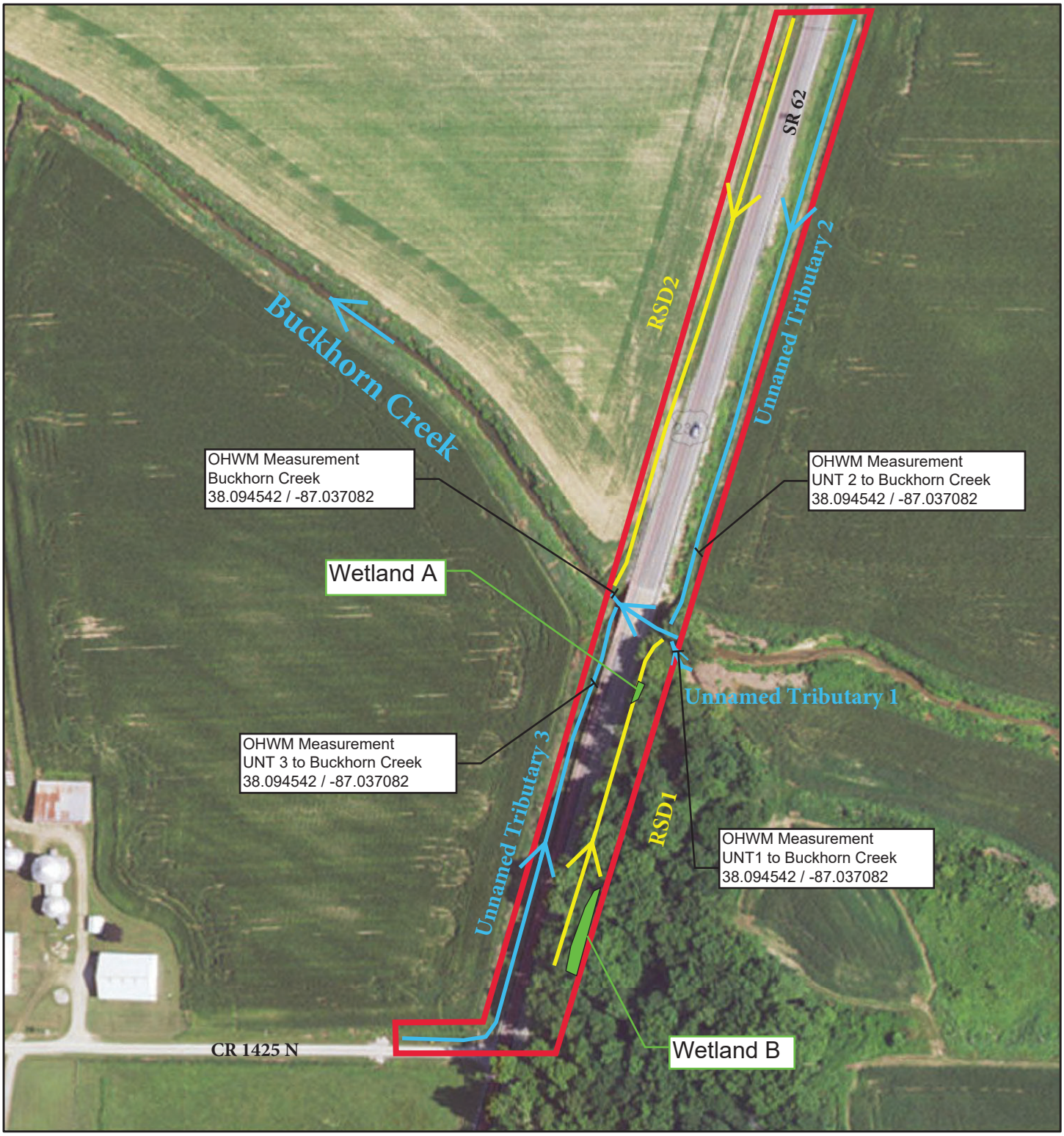
0 0.125 0.25 0.5 mi
0 0.2 0.4 0.8 km

United States Geological Survey (USGS)
Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal

USGS Chrisney, IN Quadrangle Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914
Section 11, Township 5S, Range 6W

N
1:4,000
0 0.0325 0.065 0.13 mi
0 0.05 0.1 0.2 km

United States Geological Survey (USGS)
Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal



August 17, 2021

NAIP Imagery (2018) Placeholder

Study Area

N

1:2,000

0 0.015 0.03 0.06 mi

0 0.0275 0.055 0.11 km

Water Resources Map

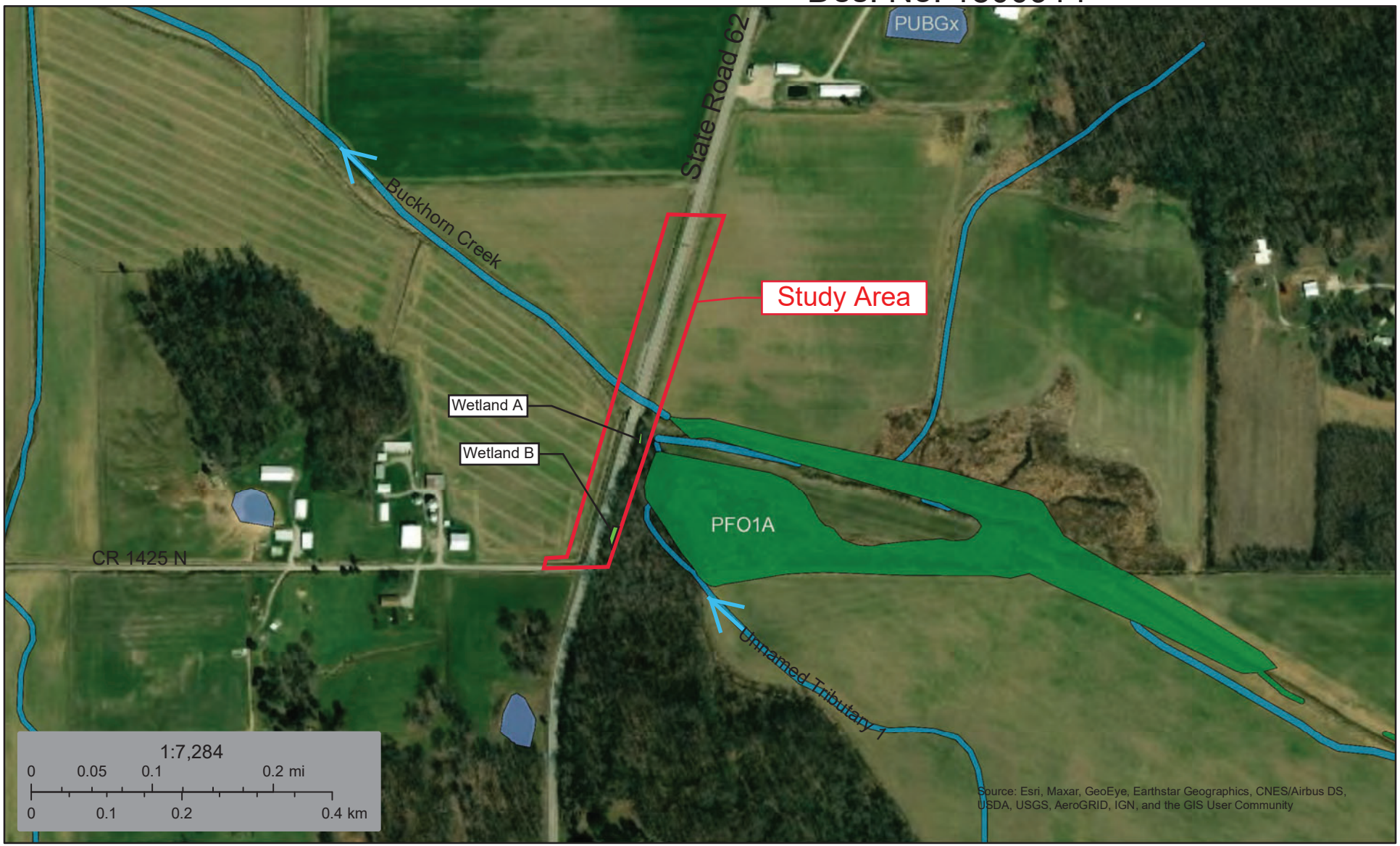
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914

Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal
National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

U.S. Fish and Wildlife Service

National Wetlands Inventory

SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914



Wetlands

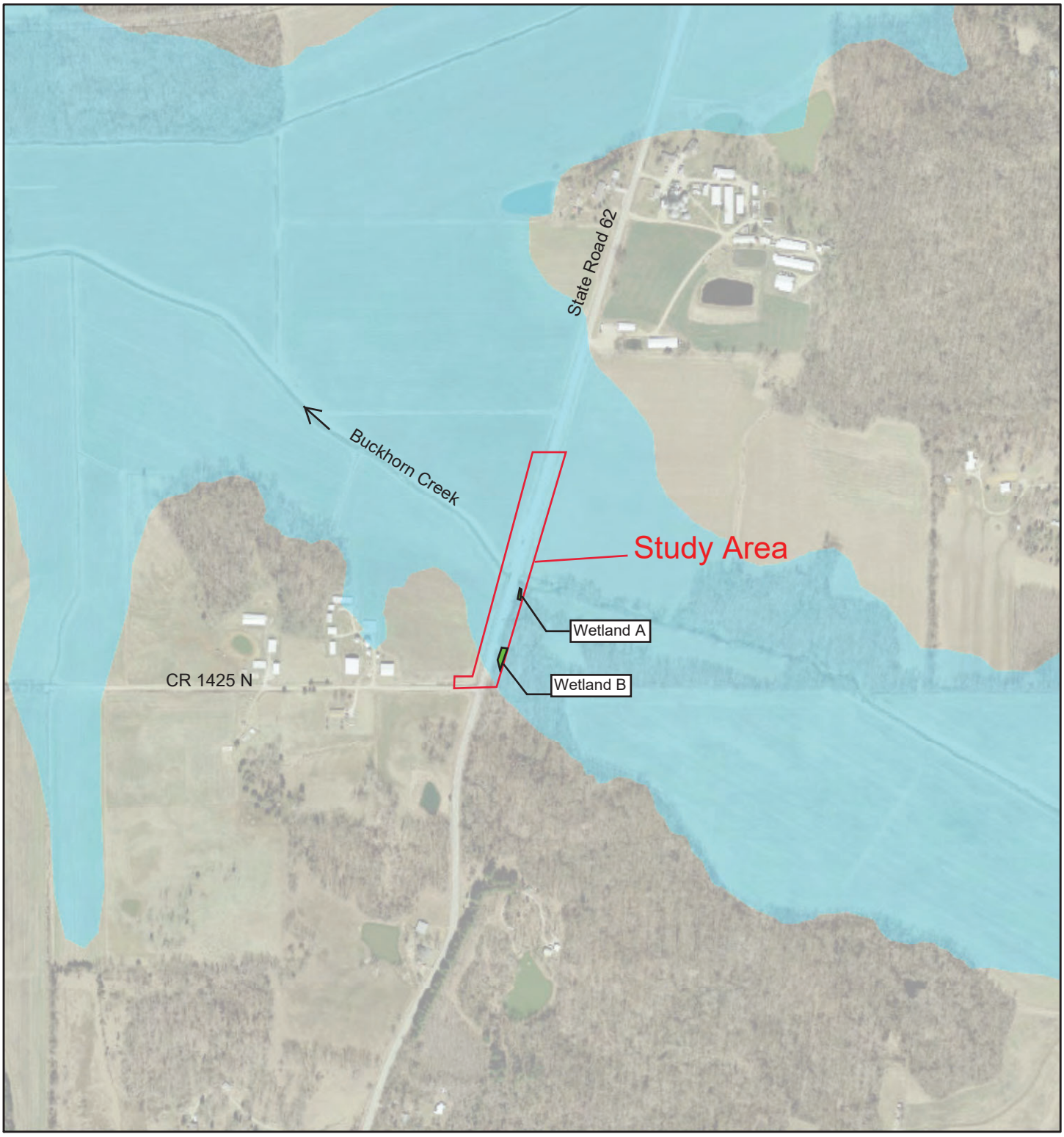
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

N

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

SR 62 over Buckhorn Creek



Floodplains - FIRM (Mar 2020)

- Floodway
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance, Protected by Levee
- 0.2% Annual Chance Flood Hazard
- 2013 Orthophotos (State boundary)

Floodplain Map
SR 62 over Buckhorn Creek
Spencer County, Indiana
Des. No. 1800914

1:8,000

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

N

U.S. Geological Survey (USGS), Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal
Federal Emergency Management Agency (FEMA), Indiana Department of Natural Resources (IDNR)

Soil Map—Spencer County, Indiana
(SR 62 over Buckhorn Creek)

Map Scale: 1:7,520 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Spencer County, Indiana
Survey Area Data: Version 20, Sep 16, 2019

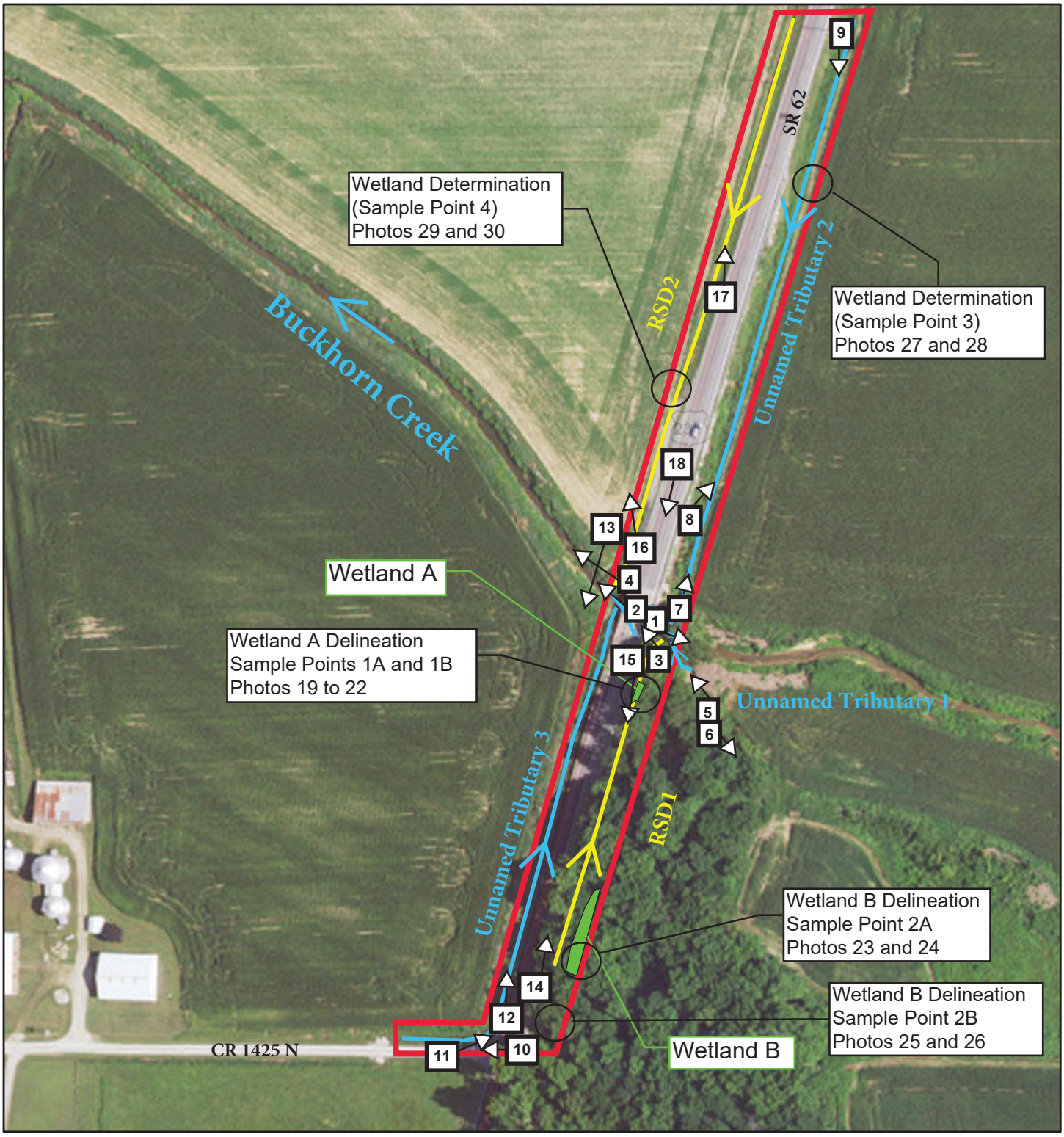
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2011—Oct 5, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bo	Bonnie silt loam, frequently flooded, brief duration	51.5	22.8%
Cu	Cuba silt loam, frequently flooded, brief duration	0.7	0.3%
GmF	Gilpin-Wellston silt loams, 25 to 35 percent slopes	7.1	3.1%
Ph	Philo silt loam, frequently flooded, brief duration	17.2	7.6%
Sn	Stendal silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	82.3	36.4%
TsB2	Tilsit silt loam, 2 to 6 percent slopes, eroded	10.7	4.7%
TsB3	Tilsit silt loam, 2 to 6 percent slopes, severely eroded	0.6	0.3%
UfD	Udorthents fragipan, 6 to 18 percent slopes, gullied	2.6	1.1%
WeD2	Wellston silt loam, 12 to 18 percent slopes, eroded	0.0	0.0%
WeD3	Wellston silt loam, 12 to 18 percent slopes, severely eroded	0.9	0.4%
WeE2	Wellston silt loam, 18 to 25 percent slopes, eroded	10.6	4.7%
WeE3	Wellston silt loam, 18 to 25 percent slopes, severely eroded	1.0	0.4%
ZaC2	Apalona-Zanesville silt loams, 6 to 12 percent slopes, eroded	2.6	1.2%
ZaC3	Apalona-Zanesville silt loams, 6 to 12 percent slopes, severely eroded	22.0	9.7%
ZaD3	Zanesville silt loam, 12 to 18 percent slopes, severely eroded	16.0	7.1%
Totals for Area of Interest		**225.8**	**100.0%**



August 17, 2021

[#] Photo Location

NAIP Imagery (2018) Placeholder

Study Area

N

1:2,000

0 0.015 0.03 0.06 mi

0 0.0275 0.055 0.11 km

Photo Orientation Map

SR 62 over Buckhorn Creek Spencer County, Indiana Des. No. 1800914

Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal
National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

1) Looking east (upstream) at Buckhorn Creek and the outlet of Unnamed Tributary 1

2) Looking northwest (downstream) at Buckhorn Creek passing beneath Str. 62-74-06164 C

3) Looking northwest at Br. 62-74-06164B from the south bank of Buckhorn Creek

4) Looking northwest (downstream) at Buckhorn Creek from Bridge 62-74-06164B

5) Looking northwest at UNT1 to Buckhorn Creek approximately 200 ft. upstream of outlet into Buckhorn Creek

6) Looking southeast at UNT 1 to Buckhorn Creek approximately 200 ft. upstream of outlet into Buckhorn Creek

7) Looking north (upstream) at UNT 2 to Buckhorn Creek as it outlets into Buckhorn Creek

8) Looking northeast at UNT 2 to Buckhorn Creek from the east side of SR 62

9) Looking south along the east side of SR 62 at UNT 2 to Buckhorn Creek near the north end of the study area

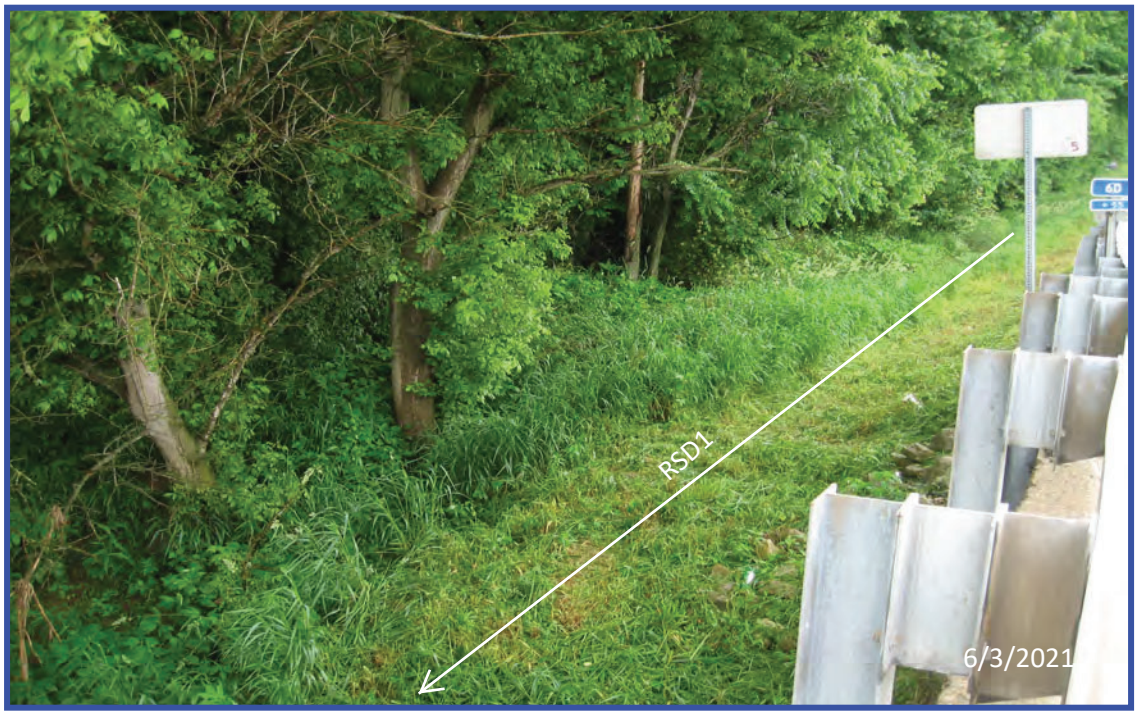
10) Looking west from SR 62 along the north side of CR 1425 N

11) Looking northeast at UNT 3 to Buckhorn Creek in the northwest quadrant of the intersection of SR 62 and CR 1425 N

12) Looking north (downstream) at UNT 3 to Buckhorn Creek along the west side of SR 62 from CR 1425 N

13) Looking south along the west side of SR 62 the outlet of UNT 3 to Buckhorn Creek

14) Looking north along the east side of SR 62 near the southern study limits; RSD1 is shown on the right



15) Looking southeast at the southeast quadrant of the SR 62 bridge crossing; RSD1 noted

16) Looking north in the northwest quadrant of the SR 62 bridge crossing; RSD2 noted

17) Looking north along the west side of SR 62 at RSD2; note that the surface water present was due to heavy rain immediately preceding the site visit

18) Looking south at the south approach of SR 62 over Br. 62-74-06164B

19) Wetland A: Looking south at Sampling Point 1A within RSD1

20) Wetland A: Looking at hydric soil field indicators found in soil sample from Sampling Point 1A

21) Looking south at Sampling Point 1B upslope of RSD1

22) Looking south at Sampling Point 1B in the southeast quadrant of the SR 62 bridge crossing

23) Wetland B: View of soil sample collected at SP2A (wetland) in the SE quadrant of Structure 62-74-06164B

24) Wetland B: Looking west towards SP2A; guardrail along SR 62 visible in the background

25) View of soil sample collected at SP2B (upland) in the SE quadrant of Structure 62-74-06164B

26) Looking west towards SP2B; SR 62 visible in the background

27) View of soil sample collected at SP3 (upland) in the NE quadrant of Structure 62-74-06164B

28) Looking west towards SP3; SR 62 visible in the background

29) View of soil sample collected at SP4 (upland) in the NW quadrant of Structure 62-74-06164B

30) Looking south towards SP4; RSD2 shown on the left

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SR 62 over Buckhorn Creek City/County: Gentryville / Spencer County Sampling Date: 06/01/2020

Applicant/Owner: INDOT State: IN Sampling Point: 1A

Investigator(s): Neal Bennett (BF&S) Section, Township, Range: S. 11, T. 5S, R. 6W

Landform (hillslope, terrace, etc.): roadside ditch Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR or MLRA): East and Central Farming Lat: 38.094268 Long: -87.036826 Datum: NAD83

Soil Map Unit Name: (Sn) Stendel silt loam 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 _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ 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 X	No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

The sampling point was taken in the bottom of RSD1, located in the SE quadrant of Str. 62-74-01164C.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☑ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

Soil sample was moist, but the pore spaces were not saturated at the time of sampling. The area is a linear wetland within the roadside ditch (RSD1) constructed along SR 62, directly discharging into Buckhorn Creek.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 1A

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharinum	15%	Y	FACW
2. Juglans nigra	15%	Y	FACU
3. Carya ovata	10%	Y	FACU
4.			
5.			
6.			
7.			
	40% = Total Cover		
50% of total cover: 20%	20% of total cover: 8%		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5' radius)			
1. Cinna arundinacea	15%	Y	FACW
2. Phalaris arundinacea	15%	Y	FACW
3. Impatiens capensis	10%	Y	FACW
4. Glyceria striata	10%	Y	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50% = Total Cover		
50% of total cover: 25%	20% of total cover: 10%		
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	30%	Y	FACU
2. Parthenocissus quinquefolia	30%	Y	FACU
3.			
4.			
5.			
	60% = Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 55% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	55	x 2 =	110
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	150 (A)		460 (B)

Prevalence Index = B/A = 3.06

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

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

See photos 19 and 20. Vegetation is marginally hydrophytic, passing the dominance test, but failing the prevalence index. However, much of Sampling Point 1A is bare ground, indicating prolonged hydrology making it difficult for plant growth.

SOIL

Sampling Point: 1A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10 YR 5/2	90	10 YR 4/6	10	C	M	SiL	~1" ribbon test
8 - 20	10 YR 6/2	90	10 YR 4/4	10	C	M	SiL	~1" ribbon test

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Soil appears to be an inclusion within Stendel silt loam that contains field indicators for a depleted matrix. The soils observed at Sampling Point 1A should be considered hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SR 62 over Buckhorn Creek City/County: Gentryville / Spencer County Sampling Date: 06/01/2020

Applicant/Owner: INDOT State: IN Sampling Point: 1B

Investigator(s): Neal Bennett (BF&S) Section, Township, Range: S. 11, T. 5S, R. 6W

Landform (hillslope, terrace, etc.): roadside slope Local relief (concave, convex, none): slope Slope (%): 0-2%

Subregion (LRR or MLRA): East and Central Farming Lat: 38.094311 Long: -87.036859 Datum: NAD83

Soil Map Unit Name: (Sn) Stendel silt loam 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 _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ 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 X No _____	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

The sampling point was taken on the backslope of RSD1, immediately adjacent to Sampling Point 1A, located in the SE quadrant of Str. 62-74-01164C.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Soil sample was moist, but the pore spaces were not saturated at the time of sampling. The sampling point was taken on a steep road slope approximately 2.5 feet above Sampling Point 1A.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 1B

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5' radius)			
1. Cinna arundinacea	70%	Y	FACW
2. Sonchus arvensis	15%	N	FACU
3. Asclepias syriaca	10%	N	FACU
4. Thlaspi arvense	10%	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	105% = Total Cover		
50% of total cover: 52.5%	20% of total cover: 21%		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	105 (A)		280 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

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

See photos 21 and 22.

SOIL

Sampling Point: 1B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10 YR 5/3	100	-----	---	---	---	SiL	~1" ribbon test
8 - 16+	10 YR 6/2	100	-----	---	---	---	SiL	~1" ribbon test

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Soil appears to be roadway fill of the native Stendel silt loam. No field indicators for hydric soils were observed. Soil sample did not appear to be hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SR 62 over Buckhorn Creek City/County: Gentryville / Spencer County Sampling Date: 06/03/2021

Applicant/Owner: INDOT State: IN Sampling Point: 2A

Investigator(s): Ryan Scott (BF&S) Section, Township, Range: S. 11, T. 5S, R. 6W

Landform (hillslope, terrace, etc.): floodplain terrace Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR or MLRA): East and Central Farming Lat: 38.093326 Long: -87.037201 Datum: NAD83

Soil Map Unit Name: (Sn) Stendel silt loam 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 _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ 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 X No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

The sampling point was taken approximately 45 feet east of the centerline of SR 62, and approximately 440 feet south of Buckhorn Creek located in the SE quadrant of Str. 62-74-01164C.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 0-20

Wetland Hydrology Present? Yes X No _____

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

Remarks:

The soil sample was saturated throughout. Water collected in the soil pit to a depth of approximately 8" below surface level.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 2A

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer negundo	25	Y	FAC
2. Liquidambar styraciflua	20	Y	FACW
3. Fraxinus pennsylvanica	15	Y	FACW
4.			
5.			
6.			
7.			
	60	= Total Cover	

50% of total cover: 30 20% of total cover: 12

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		= Total Cover	

50% of total cover: 20% of total cover:

Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	25%	Y	FACW
2. Solidago gigantea	25%	Y	FACW
3. Acer rubrum	10%	N	FAC
4. Verbesina alternifolia	10%	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70%	= Total Cover	

50% of total cover: 35% 20% of total cover: 14%

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

50% of total cover: 20% of total cover:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

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

See photos 23 and 24. Vegetation present at Sample Point 2A is considered hydrophytic by passing the Dominance Test (100% > 50%).

SOIL

Sampling Point: 2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10 YR 5/2	95	10 YR 4/6	5	C	M	SiL	~1" ribbon test
8 - 20	10 YR 6/2	99	10 YR 4/4	1	C	M	SiL	~1" ribbon test

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Soil appears to be consistent with the mapped Stendel silt loam. The soils observed at Sampling Point 2A should be considered hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SR 62 over Buckhorn Creek City/County: Gentryville / Spencer County Sampling Date: 06/03/2021

Applicant/Owner: INDOT State: IN Sampling Point: 2B

Investigator(s): Ryan Scott (BF&S) Section, Township, Range: S. 11, T. 5S, R. 6W

Landform (hillslope, terrace, etc.): floodplain terrace Local relief (concave, convex, none): none Slope (%): 0-2%

Subregion (LRR or MLRA): East and Central Farming Lat: 38.093108 Long: -87.037318 Datum: NAD83

Soil Map Unit Name: (Sn) Stendel silt loam 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 _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ 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 _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

The sampling point was taken approximately 45 feet east of the centerline of SR 62, and approximately 1,000 feet south of Buckhorn Creek located in the SE quadrant of Str. 62-74-01164C.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 14-15

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

Soil sample was saturated at a depth of 14-15" below the ground surface. This does not meet the requirements of Saturation (A3), which requires saturation within 12" below the ground surface immediately followed by the presence of the water table.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 2B

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carya cordiformis	25	Y	FACU
2. Acer saccharum	20	Y	FACU
3. Fraxinus pennsylvanica	5	N	FACW
4.			
5.			
6.			
7.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5' radius)			
1. Schedonorus arundinaceus	25%	Y	FACU
2. Dactylis glomerata	10%	Y	FACU
3. Symphoricarpos albus	10%	N	FACU
4. Alliaria petiolata	5%	N	FAC
5. Rosa multiflora	5%	N	FACU
6. Galium aparine	2%	N	UPL
7. Parthenocissus quinquefolia	2%	N	FACU
8. Acer rubrum	1%	N	FAC
9.			
10.			
11.			
	60% = Total Cover		
50% of total cover: 30%	20% of total cover: 12%		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	6	x 3 =	18
FACU species	97	x 4 =	388
UPL species	2	x 5 =	10
Column Totals:	110 (A)		426 (B)

Prevalence Index = B/A = 3.87

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

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

See photos 25 and 26. Vegetation present at Sample Point 2B is not considered hydrophytic as a result of the Dominance Test (0%) and Prevalence Index (3.87).

SOIL

Sampling Point: 2B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 12	10 YR 5/3	100					SiL	~1" ribbon test
12 - 20	10 YR 6/3	100					SiL	~1" ribbon test

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Soil appears to be an inclusion of the mapped Stendel silt loam. The soils observed at Sampling Point 2B should not be considered hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SR 62 over Buckhorn Creek City/County: Gentryville / Spencer County Sampling Date: 06/03/2021

Applicant/Owner: INDOT State: IN Sampling Point: 3

Investigator(s): Ryan Scott (BF&S) Section, Township, Range: S. 11, T. 5S, R. 6W

Landform (hillslope, terrace, etc.): floodplain terrace Local relief (concave, convex, none): none Slope (%): 0-2%

Subregion (LRR or MLRA): East and Central Farming Lat: 38.096023 Long: -87.036178 Datum: NAD83

Soil Map Unit Name: (Bo) Bonnie silt loam 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 _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ 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 _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

The sampling point was taken approximately 40 feet east of the centerline of SR 62, and approximately 550 feet north of Buckhorn Creek located in the NE quadrant of Str. 62-74-01164C.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 0-20

Wetland Hydrology Present? Yes X No _____

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

Remarks:

The soil sample was found to be saturated throughout. The water level measured in the soil pit was 8" below ground surface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 3

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 15' x 15')			
1. Schedonorus arundinaceus	35%	Y	FACU
2. Phalaris arundenacea	30%	Y	FACW
3. Equisetum arvense	10%	N	FAC
4. Rumex crispus	10%	N	FAC
5. Microstegium vimineum	5%	N	FAC
6. Panicum dichotomiflorum	5%	N	FACW
7. Verbena urticifolia	5%	N	FAC
8. Galium aparine	2%	N	FACU
9. Packera anonyma	2%	N	UPL
10.			
11.			
	104% = Total Cover		
50% of total cover: 52%	20% of total cover: 20.8%		
Woody Vine Stratum (Plot size: 15' x 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	30	x 3 =	90
FACU species	37	x 4 =	148
UPL species	2	x 5 =	10
Column Totals:	104 (A)		318 (B)

Prevalence Index = B/A = 3.06

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

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

See photos 27 and 28. Vegetation present at Sample Point 3 is not considered hydrophytic as a result of the Dominance Test (50%) and Prevalence Index (3.06).

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 16	10 YR 6/6	100					SiL	~1.5" ribbon test
16 - 20	10 YR 6/6	98	10 YR 3/4	2	C	M	SiL	~1.5" ribbon test

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Soil appears to be an inclusion of the mapped Bonnie silt loam. The soils observed at Sampling Point 3 should not be considered hydric.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SR 62 over Buckhorn Creek City/County: Gentryville / Spencer County Sampling Date: 06/03/2021

Applicant/Owner: INDOT State: IN Sampling Point: 4

Investigator(s): Ryan Scott (BF&S) Section, Township, Range: S. 11, T. 5S, R. 6W

Landform (hillslope, terrace, etc.): floodplain terrace Local relief (concave, convex, none): none Slope (%): 0-2%

Subregion (LRR or MLRA): East and Central Farming Lat: 38.095629 Long: -87.036602 Datum: NAD83

Soil Map Unit Name: (Bo) Bonnie silt loam 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 _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ 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 X	No _____	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

The sampling point was taken approximately 40 feet west of the centerline of SR 62, and approximately 400 feet north of Buckhorn Creek located in the NW quadrant of Str. 62-74-01164C.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes X	No _____	Depth (inches): 0-20

Wetland Hydrology Present? Yes X No _____

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

Remarks:

The soil sample was found to be saturated throughout. The water level measured in the soil pit was 8" below ground surface.

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: 4

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 15' x 15')			
1. Schedonorus arundinaceus	35%	Y	FACU
2. Phalaris arundenacea	30%	Y	FACW
3. Equisetum arvense	10%	N	FAC
4. Rumex crispus	10%	N	FAC
5. Microstegium vimineum	5%	N	FAC
6. Panicum dichotomiflorum	5%	N	FACW
7. Verbena urticifolia	5%	N	FAC
8. Galium aparine	2%	N	FACU
9. Packera anonyma	2%	N	UPL
10.			
11.			
	104% = Total Cover		
50% of total cover: 52%	20% of total cover: 20.8%		
Woody Vine Stratum (Plot size: 15' x 15')			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	30	x 3 =	90
FACU species	37	x 4 =	148
UPL species	2	x 5 =	10
Column Totals:	104 (A)		318 (B)

Prevalence Index = B/A = 3.06

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

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

See photos 29 and 30. Vegetation present at Sample Point 3 is not considered hydrophytic as a result of the Dominance Test (50%) and Prevalence Index (3.06).

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 14	10 YR 6/4	100					SiL	~1.5" ribbon test
14 - 20	10 YR 6/3	98	10 YR 3/4	2	C	M	SiL	~1.5" ribbon test

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10) (LRR N)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
- ☐ Thin Dark Surface (S9) (MLRA 147, 148)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- ☐ Umbric Surface (F13) (MLRA 136, 122)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 148)
- ☐ Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (MLRA 147)
- ☐ Coast Prairie Redox (A16) (MLRA 147, 148)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 136, 147)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Soil appears to be an inclusion of the mapped Bonnie silt loam. The soils observed at Sampling Point 4 should not be considered hydric.

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: August 24, 2021

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Ryan Scott, Butler, Fairman, & Seufert, Inc. 8450 Westfield., Blvd. Suite 300, Indianapolis, IN 46240

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

Des. No. 1800914 Preventative Maintenance for Structure 62-74-06164 B carrying SR 62 over Buckhorn Creek, near Gentryville, in Spencer County, IN. The existing bridge deck and wearing surface have section loss exhibited by longitudinal cracking, intermittent transverse cracking, surface delamination, mainly at deck ends, and surface patching that is damaged on the north end. The scour report for this structure recommended that scour countermeasures were required. Both spillslopes at the end bents were covered with riprap and stream deposits. It was requested that class 1 riprap be included in the contract to fill in some of the shallow areas. The approach grades along SR 62 will also be wedged and leveled as part of the maintenance work.

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

State: Indiana County/parish/borough: Spencer City: near Gentryville

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

Lat.: 38.094498 N Long.: -87.036886 W

Universal Transverse Mercator: 496765.315722; 4216297.820252

Name of nearest waterbody: Buckhorn Creek

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)
Buckhorn Creek	38.094498	-87.036886	100 linear ft.	non-wetland waters	Section 404
UNT1 to Buckhorn Cr	38.094293	-87.036684	30 linear ft.	non-wetland waters	Section 404
UNT2 to Buckhorn Cr	38.094729	-87.036684	600 linear ft.	non-wetland waters	Section 404
UNT3 to Buckhorn Cr	38.0943463	-87.037082	600 linear ft.	non-wetland waters	Section 404
Wetland A	38.094268	-87.036826	0.0075 ac.	wetland	Section 404
Wetland B	38.093326	-87.037201	0.17 ac.	wetland	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: Waters of the United States Report.
- ☒ 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: Chrisney, IN Quadrangle.
- ☒ Natural Resources Conservation Service Soil Survey. Citation: Websoil Survey Spencer County, IN.
- ☒ National wetlands inventory map(s). Cite name: USFWS Spencer County, IN Map.
- ☐ State/local wetland inventory map(s): _____.
- ☒ FEMA/FIRM maps: IDNR FIRM.
- ☒ 100-year Floodplain Elevation is: 403.7 .(National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): 2013 Orthophotography.
  or ☒ Other (Name & Date): Site Photos taken: 2/6/20, 6/1/20 and 6/3/21 .
- ☐ 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.

_____	_____ 08/24/2021
Signature and date of Regulatory staff member completing PJD	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.

Ryan Scott

From: Engstrom, Maryssa H <MEngstrom@indot.IN.gov>
Sent: Tuesday, October 5, 2021 5:02 PM
To: Ryan Scott
Cc: Rehder, Crystal; Risse, Dakota W
Subject: RE: 10/5/2021 Permit Determination: Des No 1800914; Bridge 62-74-06164B carrying SR 62 over Buckhorn Creek, 1.4 miles south of SR 162, Spencer County, IN

Hello Ryan,

This still meets NWP 3 conditions.

Thanks for the information. Based on the information provided, the following permits are needed for **Des. No. 1800914, RFC Date 5/4/2022** (the designer should confirm all schedules with the Project Manager):

- **401/404 NWP 3** (Use State Form 51937) since impacts less than 300 LFT/0.1 acres. **Please submit this application to our office by 1/4/2021.**

*We are providing **preliminary** permit determinations based on the information presented at the time of the request. **If scope and plans change the designer should contact us for a revised determination.** A final permit determination will be done at the time of permit application submittal and/or any changes to the scope of the project.*

Thank you,
Maryssa H. Engstrom
Vincennes District Specialist, Ecology and Waterway Permitting Office
INDOT Environmental Services – Central Office
100 N Senate Ave, Room 758-ES
Indianapolis, IN 46204
Phone: 317.694.3038
Hours: M-F 9:00 AM-5:00PM EST

From: Ryan Scott <RScott@bfsengr.com>
Sent: Tuesday, October 5, 2021 10:13 AM
To: Engstrom, Maryssa H <MEngstrom@indot.IN.gov>
Subject: RE: Permit Determination Request: Des No 1800914; Bridge 62-74-06164B carrying SR 62 over Buckhorn Creek, 1.4 miles south of SR 162, Spencer County, IN

Hi Maryssa,

My apologies, I just realized I only provided acreages for permanent and temporary stream impacts below, and not linear feet.

- Anticipated permanent impacts below the OHWM of Buckhorn Creek: 62 linear feet
- Anticipated temporary impacts below the OHWM of Buckhorn Creek: **70 linear feet (if cofferdams are utilized)**

APPENDIX G

AIR QUALITY

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Comments:Amend 2020-2024 STIP. Adding FY22 CN $1,814,341.00. No MPO.																		
Indiana Department of Transportation	40786 / 1702649	Init.	US 231	Bridge Deck Overlay	William Natcher Bridge over the Ohio River	Vincennes	0	NHPP		Bridge Construction	CN	$4,000,000.00	$1,000,000.00	$5,000,000.00				
Performance Measure Impacted: Bridge Condition																		
Indiana Department of Transportation	41059 / 1800396	Init.	SR 68	Bridge Thin Deck Overlay	Over North Fork Little Pigeon Creek, 01.15 mi E SR-161	Vincennes	0	STBG		Bridge Construction	CN	$2,606,189.60	$651,547.40		$3,257,737.00			
Performance Measure Impacted: Bridge Condition																		
Indiana Department of Transportation	41060 / 1800914	Init.	SR 62	Bridge Deck Overlay	Over Buckhorn Creek, 01.40 mi S SR-162	Vincennes	0	STBG		Bridge Construction	CN	$196,800.00	$49,200.00		$246,000.00			
Performance Measure Impacted: Bridge Condition																		
Indiana Department of Transportation	41060 / 1800914	A 07	SR 62	Bridge Deck Overlay	Over Buckhorn Creek, 01.40 mi S SR-162	Vincennes	0	NHPP	$303,500.00	Bridge Consulting	PE	$46,000.00	$11,500.00	$57,500.00				
Performance Measure Impacted: Bridge Condition																		
Comments:Amend 2020-2024 STIP. Adding FY20 PE $57,500.00. No MPO.																		
Indiana Department of Transportation	41060 / 1800914	A 18	SR 62	Bridge Deck Overlay	Over Buckhorn Creek, 01.40 mi S SR-162	Vincennes	0	STBG	$563,500.00	Bridge Construction	CN	$208,000.00	$52,000.00		$260,000.00			
Performance Measure Impacted: Bridge Condition																		
Comments:Adding FY21 CN funding of $260,000.00. No MPO.																		
Indiana Department of Transportation	41060 / 1800914	A 39	SR 62	Bridge Deck Overlay	Over Buckhorn Creek, 01.40 mi S SR-162	Vincennes	0	STBG	$531,000.00	Bridge ROW	RW	$20,000.00	$5,000.00			$25,000.00		
Performance Measure Impacted: Bridge Condition																		
Comments:No MPO. Add RW in FY 2022 for $25,000.00. AQC NA.																		
Indiana Department of Transportation	41060 / 1800914	M 33	SR 62	Bridge Deck Overlay	Over Buckhorn Creek, 01.40 mi S SR-162	Vincennes	0	STBG	$492,000.00	Bridge Consulting	PE	$48,800.00	$12,200.00			$61,000.00		
										Bridge Construction	CN	-$80,000.00	-$20,000.00		($506,000.00)		$406,000.00	
Performance Measure Impacted: Bridge Condition																		
Comments:ADD FY 2022 PE for $61,000.00. Move FY 2021 CN of $506,000.00 to FY 2023 and reduce to $406,000.00. No MPO.																		
Indiana Department of Transportation	41060 / 1800922	A 18	SR 161	Bridge Thin Deck Overlay	Over Sweezer Ditch, 04.29 mi S SR-62	Vincennes	0	STBG	$0.00	Bridge Construction	CN	-$125,600.00	-$31,400.00		($157,000.00)			
Performance Measure Impacted: Bridge Condition																		
Comments:Eliminating lead DES 1800922, FY21 CN funding of $157,000.00 is being moved to DES 1800914, Contract# 41060 for project re-bundling. No MPO.																		
Indiana Department of Transportation	41128 / 1701447	Init.	SP 231	HMA Overlay, Preventive Maintenance	Old US-231, From SR-70 to 1.2 4 mi N SR-70 (Chrisney)	Vincennes	0	NHPP		Road Construction	CN	$326,030.40	$81,507.60		$407,538.00			
Performance Measure Impacted: Pavement Condition																		
Indiana Department of Transportation	41128 / 1800958	Init.	SR 70	HMA Overlay, Preventive Maintenance	From Old US-231 to 0.30 mi E of Old US-231 (Chrisney)	Vincennes	.06	STBG		Road Construction	CN	$1,565,148.80	$391,287.20		$1,956,436.00			
Performance Measure Impacted: Pavement Condition																		

Report Created:10/18/2021 2:57:57PM

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

APPENDIX H

ADDITIONAL STUDIES

1800003	1800003	Spencer	Lincoln State Park & Lincoln+s Woods Nature Preser
1800161	1800161A	Spencer	Lincoln State Park
1800171	1800171F	Spencer	Lincoln State Park
1800174	1800174	Spencer	Lincoln State Park & Lincoln Woods Nature Preserve
1800305	1800305E	Spencer	Lincoln State Park
1800312	1800312G	Spencer	Lincoln State Park
1800327	1800327F	Spencer	Lincoln State Park
1800363	1800363P	Spencer	Lincoln State Park
1800413	1800413M	Spencer	Lincoln State Park
1800428.1	1800428.2	Spencer	Lincoln State Park
1800430	1800430	Spencer	Lincoln State Park & Lincoln+s Woods Nature Preser
1800553	1800553	Spencer	Jim Yellig Park
1800553.1	1800553.1	Spencer	Jim Yellig Park

Section 6(f) Properties in Spencer County, Indiana

Source: INDOT List of Land and Water Conservation Fund Properties

https://www.in.gov/indot/files/LWCF%20Indiana%20County%20List_02-25-2020.pdf

Bridge Inspection Report

062-74-06164 B
SR 62
over
BUCKHORN CREEK

Inspection Date: 05/17/2021

Inspected By: Bawi Chawn

Inspection Type(s): Routine

IDENTIFICATION

(1) STATE CODE:	185 - Indiana
(8) STRUCTURE:	022130
(5 A-B-C-D-E) INV. ROUTE:	1 - 3 - 1 - 00062 - 0
(2) HIGHWAY AGENCY DISTRICT:	06 - Vincennes
(3) COUNTY CODE:	074 - SPENCER
(4) PLACE CODE:	00000 - N/A
(6) FEATURES INTERSECTED:	BUCKHORN CREEK
(7) FACILITY CARRIED:	SR 62
(9) LOCATION:	01.40 S SR 162
(11) MILEPOINT:	0014.110

(12) BASE HIGHWAY NETWORK:	0
(13A) INVENTORY ROUTE:	
(13B) SUBROUTE NUMBER:	
(16) LATITUDE:	38.09447
(17) LONGITUDE:	-87.03691
(98) BORDER	
A) STATE NAME:	
B) PERCENT	%
(99) BORDER BRIDGE STRUCT. NO:	

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:	
A) KIND OF MATERIAL/DESIGN:	5 - Prestressed concrete
B) TYPE OF DESIGN/CONSTR:	06 - Box Beam or Girders - Single or Spread
(44) STRUCTURE TYPE, APPROACH SPANS:	
A) KIND OF MATERIAL/DESIGN:	0 - Other
B) TYPE OF DESIGN/CONSTR:	00 - Other

(45) NUMBER OF SPANS IN MAIN UNIT:	001
(46) NUMBER OF APPROACH SPANS:	0000
(107) DECK STRUCTURE TYPE:	1 - Concrete Cast-in-Place
(108) WEARING SURFACE/PROT SYS:	
A) WEARING SURFACE:	1 - Monolithic Concrete (concurrently placed with structural deck)
B) DECK MEMBRANE:	0 - None
C) DECK PROTECTION:	1 - Epoxy Coated Reinforcing

AGE OF SERVICE

(27) YEAR BUILT:	1922
(106) YEAR RECONSTRUCTED:	1980
(42) TYPE OF SERVICE:	
A) ON BRIDGE:	1 - Highway
B) UNDER BRIDGE:	5 - Waterway

(28) LANES:		
A) ON BRIDGE:	02	
B) UNDER BRIDGE:	00	
(29) AVERAGE DAILY TRAFFIC:	005376	
(30) YEAR OF AVERAGE DAILY TRAFFIC:	2004	
(109) AVERAGE DAILY TRUCK TRAFFIC:	10	%
(19) BYPASS DETOUR LENGTH:	005	MI

Paint: ** Indicate if paint present , year painted & condition rating.*

N - No Paint Not Rated

Comments:

Endangered Species: ** If yes, add one photo to the dropdown field*

Bats: seen or heard under structure? * N - No evidence of bats

Birds/swallows/nests seen? Empty nests present? * N - No evidence of Birds and/or Nests

BRIDGE Culvert Geometry:

Barrel Length:

Height:

Width:

Environmental Justice Analysis

SR 62 over Buckhorn Creek, Spencer County, Indiana

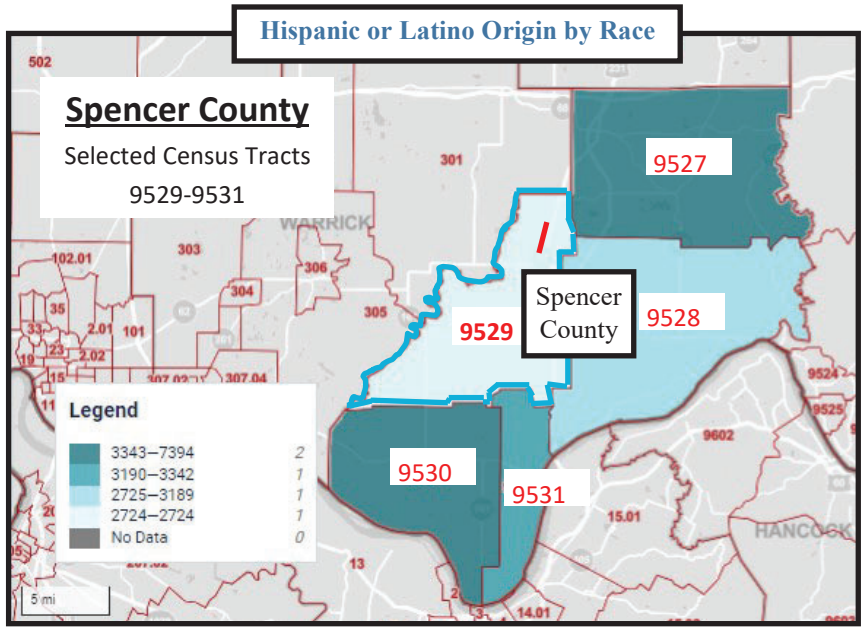
Project Description

The Indiana Department of Transportation (INDOT)-Vincennes District and Federal Highway Administration (FHWA) proposes to proceed with a bridge project on Structure No. 062-74-06164B carrying State Road (SR) 62 over Buckhorn Creek in Spencer County.

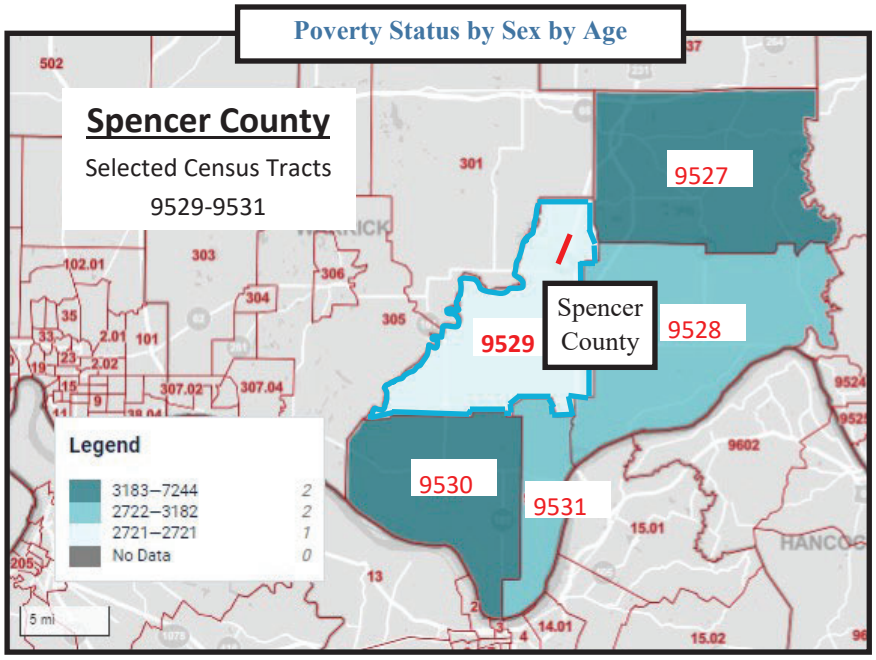
The project is located along SR 62, approximately 1.4 miles south of SR 162, as well as in Section 11, Township 5 South, Range 6 West on the USGS Chrisney Quadrangle. The need for this project is due to the current condition of the Prestressed Concrete Box Beam bridge, which is in poor, according to the May 10, 2019 *Bridge Inspection Report*. The purpose of this project is to address the poor condition of the bridge deck, minor deterioration to the beams and abutments, and erosion of the Buckhorn Creek stream channel for Structure No. 062-74-06164B.

The proposed project will include a mill and overlay along the existing bridge deck and approaches as well as the installation of a Latex Modified Cement Concrete deck overlay. The bridge overlay will be wedged and leveled. Abutments will have riprap and riprap turnouts installed to prevent further erosion. The longitudinal cracking on the beams and abutments will be patched with concrete, and galvanized anodes will be installed. The bridge drainage system will be rehabilitated by concrete patching and the installation of cathodic protection. At the conclusion of the project, the guardrail will be replaced in-kind with new guardrail that meets Midwest Guardrail System (MGS) standards.

Land use in the vicinity of the project is primarily riparian forest and agricultural with residential present in the southwest quadrant The project will require the acquisition of approximately 0.657 acre of permanent right -of-way (ROW) (0.52 acre of agricultural land and 0.137 acre of forested land). The existing ROW is 37 feet west and 33 feet east of the centerline of SR 62 for a total of 70 feet. The proposed ROW will extend 50 feet east and west of the centerline of SR 62 for a total of 100 feet. The project limits along SR 62 over Buckhorn Creek extend for approximately 70 feet along the bridge with a maximum width of 36 feet on the bridge, with a 10 -foot by 2-foot riprap placement area under the bridge. Traffic will be maintained throughout construction using a detour as the bridge will be closed to motorists. The project is anticipated to be constructed in 2023-2024.



Affected Community (AC) Spencer County, Census Tract 9529
Community of Comparison (COC) Spencer County



Affected Community (AC) Spencer County, Census Tract 9529
Community of Comparison (COC) Spencer County

Environmental Justice Analysis

SR 62 over Buckhorn Creek, Spencer County, Indiana

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 more than 0.5 acre acquisition 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 Spencer County. The community that overlaps the project area is called the affected community (AC). In this project, the AC is Census Tract 9529. 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 2019 American Community Survey (ACS) 5-year estimate data was obtained from the US Census Bureau Website data.census.gov/cedsci/ on May 24, 2021 on by Butler, Fairman, & Seufert, Inc. The data collected for minority and low-income populations within the AC are summarized in the attached table.

- The AC, Census Tract 9529, has a percent minority of 2.83% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a minority population of EJ concern.
- The AC, Census Tract 9529 has a percent low-income of 6.58% which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain a low-income population of EJ concern.

No further environmental justice analysis is warranted.

SR 62 over Buckhorn Creek, Spencer County, Indiana Des. No. 1800914

Label	AC Census Tract 9529, Spencer County, Indiana	COC Spencer County, Indiana
Total:	2721	20127
Income in the past 12 months below poverty level:	179	1871
Percent Low-Income	6.58%	9.30%
125% of COC	AC<125% COC	11.62%
Potential Low-Income EJ Impact?	No	

Label	AC Census Tract 9529, Spencer County, Indiana	COC Spencer County, Indiana
Total:	2724	20447
Not Hispanic or Latino:	2678	19854
White alone	2647	19397
Black or African American alone	0	143
American Indian and Alaska Native alone	0	30
Asian alone	0	69
Native Hawaiian and Other Pacific Islander alone	0	0
Some other race alone	0	0
Two or more races:	31	215
Two races including Some other race	6	13
Two races excluding Some other race, and three or more races	25	202
Hispanic or Latino:	46	593
White alone	16	508
Black or African American alone	0	0
American Indian and Alaska Native alone	1	1
Asian alone	0	0
Native Hawaiian and Other Pacific Islander alone	0	0
Some other race alone	29	66
Two or more races:	0	18
Two races including Some other race	0	18
Two races excluding Some other race, and three or more races	0	0
Number Non-white/minority	77	1050
Percent Non-white/Minority	2.83%	5.14%
125 Percent of COC	AC<125% of COC	6.42%
Potential Minority EJ Impact?	No	

HISPANIC OR LATINO ORIGIN BY RACE

United States Census Bureau

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

	Census Tract 9527	Census Tract 9528	Census Tract 9529	Census Tract 9530	Census Tract 9531
Label	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**
Total:	7,394	3,189	2,724	3,798	3,342
Not Hispanic or Latino:	6,982	3,167	2,678	3,793	3,234
White alone	6,859	3,106	2,647	3,742	3,043
Black or African American alone	25	11	0	14	93
American Indian and Alaska Native alone	0	0	0	14	16
Asian alone	37	0	0	18	14
Native Hawaiian and Other Pacific Islander alone	0	0	0	0	0
Some other race alone	0	0	0	0	0
Two or more races:	61	50	31	5	68
Two races including Some other race	0	0	6	0	7
Two races excluding Some other race, and three or more races	61	50	25	5	61
Hispanic or Latino:	412	22	46	5	108
White alone	387	16	16	0	89
Black or African American alone	0	0	0	0	0
American Indian and Alaska Native alone	0	0	1	0	0
Asian alone	0	0	0	0	0
Native Hawaiian and Other Pacific Islander alone	0	0	0	0	0
Some other race alone	7	6	29	5	19
Two or more races:	18	0	0	0	0
Two races including Some other race	18	0	0	0	0
Two races excluding Some other race, and three or more races	0	0	0	0	0

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, or the margin of error associated with a median was larger than the median itself.
An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.
An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.
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.
An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
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.
An "(X)" means that the estimate is not applicable or not available.

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.

HISPANIC OR LATINO ORIGIN BY RACE

Survey/Program: American Community Survey

Universe: Total population

Year: 2019

Estimates: 5-Year

Table ID: B03002

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.

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.

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

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 ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.

The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations 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 delineation lists 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.

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, or the margin of error associated with a median was larger than the median itself.

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.
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8. An "(X)" means that the estimate is not applicable or not available.

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

United States Census Bureau

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

	Census Tract 9527	Census Tract 9528	Census Tract 9529	Census Tract 9530	Census Tract 9531
Label	**Estimate**	**Estimate**	**Estimate**	**Estimate**	**Estimate**
Total:	7,244	3,182	2,721	3,798	3,182
Income in the past 12 months below poverty level:	505	242	179	357	588
Male:	201	81	62	120	197
Under 5 years	52	8	0	43	33
5 years	0	0	12	0	0
6 to 11 years	0	4	14	0	39
12 to 14 years	0	0	0	0	15
15 years	0	0	6	0	0
16 and 17 years	0	0	2	7	0
18 to 24 years	0	0	4	31	0
25 to 34 years	40	17	2	20	6
35 to 44 years	0	6	9	10	0
45 to 54 years	31	4	1	5	33
55 to 64 years	16	24	10	0	61
65 to 74 years	14	4	2	4	10
75 years and over	48	14	0	0	0
Female:	304	161	117	237	391
Under 5 years	4	2	38	7	22
5 years	4	11	4	0	0
6 to 11 years	64	0	7	49	68
12 to 14 years	24	1	0	44	32
15 years	0	0	0	0	0
16 and 17 years	0	1	1	0	0
18 to 24 years	27	19	21	54	40
25 to 34 years	28	40	17	33	20

35 to 44 years	33	8	15	0	16	; not appropriate.

An "-" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
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An "(X)" means that the estimate is not applicable or not available.

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.

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey

Universe: Population for whom poverty status is determined

Year: 2019

Estimates: 5-Year

Table ID: B17001

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.

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.

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

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 ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.

The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations 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 delineation lists 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.

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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, or the margin of error associated with a median was larger than the median itself.

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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.

APPENDIX I

PUBLIC INVOLVEMENT

Example Notice of Survey Letter

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

Eric Holcomb, Governor
Joe McGuinness, Commissioner

May 10, 2021

NOTICE OF SURVEY

RE: Topographic Survey for Rehabilitation of SR 62 Bridge over Buckhorn Creek, 1.4 miles South of SR 162, INDOT Des. No. 1800914, Spencer County, Indiana

Dear Property Owner(s):

The Indiana Department of Transportation has selected Butler, Fairman and Seufert, Inc., to survey the referenced project. Courthouse records show that you are a property owner within the limits of the area where data will be collected for the project survey. It may be necessary for our employees to enter your property to complete this work. This is permitted by law per Indiana Code IC 8-23-7-26. 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 can eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

The survey work may include mapping the location of features such as trees, buildings, fences and drives, and obtaining ground elevations along with the identification and mapping of wetlands and historic resources, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites) and various other environmental studies. The information we obtain from the survey and studies is necessary for the proper planning and design of the transportation project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If problems do occur, please contact our field crew or contact me at the telephone number or address shown above or the included e-mail address.

Sincerely,

BUTLER, FAIRMAN and SEUFERT, INC.

Mark W. Neal, P.S.
mneal@bfsengr.com