

Categorical Exclusion

Appendix D

**Section 106 of the National Historic
Preservation Act (NHPA)**

Minor Projects PA Project Assessment Form

Date: 9/29/20

Project Designation Number: 1600886

Route Number: SR 234

Project Description: Small Structure Replacement, 1.56 miles east of US 41

The proposed project involves a small structure replacement located on State Route (SR) 234, approximately 1.56 miles east of US 41, in Fountain County, Indiana. The project will replace the existing 12.7-foot span by 6.8-foot vertical opening concrete box culvert with a new reinforced concrete box culvert that has a 13-foot span by 7-foot vertical opening. The structure will be sumped 1 foot with class 1 riprap at the inlet and outlet for scour protection. Appropriate anchors, headwalls, and wing walls will also be constructed. Additionally, approximately 225 feet of guardrail and end treatments will be installed on the north and south sides of the structure. Approximately 1.19 acres of right-of-way is anticipated to complete the project.

Feature crossed (if applicable): UNT to Panther Creek

City/Township: Millcreek Township

County: Fountain

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): Online property record cards:

<https://beacon.schneidercorp.com/Application.aspx?AppID=907&LayerID=17344&PageTypeID=1&PageID=7798>; Engineering Assessment, Small Structure Project, SR 234 in Fountain County, Des. No. 1600886, prepared by Crawfordsville District Technical Services Division, March 2017; MPPA information submitted by RQAW, dated 8/10/2020

Bundy, Paul D. and Andrew V. Martin

2020 A Phase Ia Archaeological Field Reconnaissance for a Proposed SR 234 Small Structure Replacement Project, 1.56 Miles East of US 41 in Fountain County, Indiana (INDOT Des. No. 1600886). 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):

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

B-4. Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)

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

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

Condition B (Above-Ground Resources)

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

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

Condition A (Archaeological Resources)

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

- 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)

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

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

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- and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.
- ii. Work involves the installation of a new culvert and other drainage structures AND/OR there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions (*BOTH Condition a and Condition b must be satisfied*):
- a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
 - b. The subject structure exhibits one of the characteristics described below (*Condition 1, Condition 2 or Condition 3 must be satisfied*).
 1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
 2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
 3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

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

With regard to above-ground resources, an INDOT Cultural Resources Office (CRO) architectural historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Fountain County. No listed properties are located near the project area.

The "Fountain County Interim Report" (1988; Millcreek Township Scattered Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was checked. 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 Mapping (IHBBCM). No IHSSI properties are recorded within 0.25 mile of the small structure, which would serve as a more than adequate area of potential effects (APE) given the project scope.

The entire APE on the north side of SR 234 is composed of agricultural fields. Three properties with houses are located on the south side of SR 234 within the APE. None of the houses are present on the USGS 7.5' series Wallace, Indiana topographic quadrangle map from 1961. A review of information found through online property records, including photographs, confirms that the houses are of late-20th century construction. The easternmost house, located at 863 E SR 234, is a ranch style house that was built circa 1993. The second house, located at 923 E SR 234, is a ranch style house that was built circa 1994. The third house, located at 1045 E SR 234, was built circa 2006.

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The small structure itself is a concrete slab bridge spanning 12.7' to concrete abutments with a 6.8' vertical opening. The total length of the small structure is approximately 24.0', the structure is under approximately 10" to 12" of existing HMA roadway material as cover and is not skewed. It has concrete railings with bush hammered panels. It was likely constructed in the early-mid-20th century. It is a common type seen across the Indiana landscape and it does not appear to possess any historical or engineering significance that would indicate it is National Register eligible.

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

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 Phase Ia report prepared by CRA (Bundy and Martin 2020) for the subject project and determined that there are no archaeological concerns. An approximate 1.5 acre survey area was examined for archaeological resources through visual inspection of disturbed r/w, the excavation of 20 shovel probes, one auger, and cleaning and examination of the stream bank. No archaeological sites were identified and though there is a potential for buried deposits, the completed auger probe and stream bank inspection are considered enough effort to determine that no buried archaeological deposits are within the survey area. Therefore, it is recommended that the project be allowed to proceed as planned without additional archaeological work.

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

INDOT Cultural Resources staff reviewer(s): Mary Kennedy & 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.*



INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY

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

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

Author: Paul D. Bundy

Date (month, day, year): August 31, 2020

Project Title: A Phase Ia Archaeological Field Reconnaissance for a Proposed SR 234 Small Structure Replacement Project, 1.56 Miles East of US 41 in Fountain County, Indiana (INDOT Des. No. 1600886) (Cultural Resource Analysts, Inc., Contract Publication Series 20-378)

PROJECT OVERVIEW

Project Description: The Indiana Department of Transportation (INDOT) has proposed a small structure replacement in Fountain County, Indiana (Figures 1 and 2). The structure is located on SR 234 (CV 234-023-18.14), approximately 1.56 miles east of US 41 in Fountain County, Indiana. The project will replace the existing 3.9 m (12.7 ft) span by 2.1 m (6.8 ft) vertical opening concrete box culvert with a new reinforced concrete box culvert that has a 4.0 m (13.0 ft) span by 2.1 m (7.0 ft) vertical opening. The structure will be sumped 0.3 m (1.0 ft) with class 1 riprap at the inlet and outlet for scour protection. Appropriate anchors, headwalls, and wing walls will also be constructed. Additionally, approximately 68.6 m (225 ft) of guardrail and end treatments will be installed on the north and south sides of the structure. In total, the area archaeologically surveyed for the project encompasses approximately 0.6 ha (1.5 acres) within proposed construction limits and right-of-way.

INDOT Designation Number/ Contract Number: Des. No. 1600886 Project Number: CRA No. I20R012

DHPA Number: N/A Approved DHPA Plan Number: N/A

Prepared For: RQAW Corporation

Contact Person: Kyle Boot

Address: 8770 North Street, Suite 110

City: Fishers State: IN ZIP Code: 47038

Telephone Number: (317) 588-1795 Email Address: kboot@rqaw.com

Principal Investigator: Andrew V. Martin, RPA

Signature:

Company/Institution: Cultural Resource Analysts, Inc. (CRA)

Address: 201 Northwest Fourth Street, Suite 204

City: Evansville State: IN ZIP Code: 47708

Telephone Number: (812) 253-3009 Email Address: amartin@crai-ky.com

Recommendation

- The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.
- The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.
- The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.
- The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

The small portion of the survey area mapped on alluvial soils and found to be intact consisted of approximately 9.6 sq m (103.3 sq ft). The completed auger probe and stream bank inspection are considered enough effort to determine that no buried archaeological deposits are within the survey area.

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

Attachments

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

Other Attachments:

References Cited:

Comments:

Curation

Curation Facility for Project Documentation:

Categorical Exclusion

Appendix E

Red Flag and Hazardous Materials



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: November 30, 2017

To: Hazardous Materials Unit
Environmental Services
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Harlan Ford
Crawfordsville District
41 W 300 N
Crawfordsville, IN
Hford1@indot.in.gov

Re: RED FLAG INVESTIGATION
1600886, State Project
Small Structure Replacement
SR-234, CV 234-023-18.14
Fountain County, Indiana

NARRATIVE

This project is located on SR-234 1.56 miles E. of US-41 at RP 18+14 in Fountain County. SR-234 is not part of the National Highway System or the National Truck Network. SR-234 is classified as being a Rural Major Collector on the 3R System and is not part of the 4R System. The project involves the replacement of a box culvert. Small structure replacement is the only option for this project due to the advanced deterioration of the current structure. The project is not expected to require additional right of way, however if that should change the amount purchased should be limited as much as possible. The type of excavation to occur includes, 50' of full depth pavement removal, small structure removal, and underdrain perpetuation. At this time, the unofficial MOT plan is to use a detour and close SR-234. By closing SR-234 traffic would be required to detour to the north travelling along US-41 to the west and SR-341 to the east in order to connect to SR-32 as an alternate east-west route. This project may also have restriction prohibiting work in the waterway between the dates of April 1st through June 30th in consideration of fish spawning. Also, this project is likely to involve some tree clearing. The tree clearing will be restricted to April 1st through September 30th in consideration of endangered bat species.

SUMMARY

Infrastructure			
Indicate the number of items of concern found within 0.5 mile and an explanation why each item within the 0.5 mile search radius will/will not impact the project. If there are no items, please indicate N/A:			
Religious Facilities	N/A	Recreational Facilities	N/A
Airports	N/A	Pipelines	N/A

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Cemeteries	N/A	Railroads	N/A
Hospitals	N/A	Trails	N/A
Schools	N/A	Managed Lands	N/A

Explanation: N/A

Water Resources			
Indicate the number of items of concern found within 0.5 mile and an explanation why each item within the 0.5 mile search radius will/will not impact the project. If there are no items, please indicate N/A:			
NWI - Points	1	NWI - Wetlands	N/A
Karst Springs	N/A	IDEM 303d Listed Lakes	N/A
Canal Structures – Historic	N/A	Lakes	1
NWI - Lines	1	Floodplain - DFIRM	N/A
IDEM 303d Listed Rivers and Streams (Impaired)	N/A	Cave Entrance Density	N/A
Rivers and Streams	1	Sinkhole Areas	N/A
Canal Routes - Historic	N/A	Sinking-Stream Basins	N/A
Urbanized Area Boundary (UAB)	N/A		

Explanation:

NWI POINTS

One NWI point was located within 0.5 mile radius of the project area. It is located 0.33 miles south of the project area and no impact is expected.

NWI LINES

One NWI line was located passing through the 0.5 mile radius of the project area. It is located 0.09 miles southwest of the project area and no impact is expected.

Rivers and Streams

Panther Creek and was identified within the 0.5 mile search radius of the project area. It is located 0.08 miles southwest of the project area and no impact is expected.

Due to the proximity of the structure it is likely that additional water resources such as unnamed tributaries, regulated drains, wetlands, and roadside ditches are located in the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

Lakes

One lake was identified in the half mile radius of the project area. The lake is un-named on GIS and is located 0.41 miles northwest of the project area. No impact is expected.

Mining/Mineral Exploration			
Indicate the number of items of concern found within 0.5 mile and an explanation why each item within the 0.5 mile search radius will/will not impact the project. If there are no items, please indicate N/A:			
Petroleum Wells	N/A	Petroleum Fields	N/A

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Mines – Surface	N/A	Mines – Underground	N/A
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Explanation: N/A

Hazardous Material Concerns			
Indicate the number of items of concern found within 0.5 mile and an explanation why each item within the 0.5 mile search radius will/will not impact the project. If there are no items, please indicate N/A:			
Brownfield Sites	N/A	Restricted Waste Sites	N/A
Corrective Action Sites (RCRA)	N/A	Septage Waste Sites	N/A
Confined Feeding Operations	N/A	Solid Waste Landfills	N/A
Construction Demolition Waste	N/A	State Cleanup Sites	N/A
RCRA Generators	N/A	Tire Waste Sites	N/A
Infectious/Medical Waste Sites	N/A	Waste Transfer Stations	N/A
Lagoon/Surface Impoundments	N/A	RCRA Waste Treatment, Storage, and Disposal Sites (TSDs)	N/A
Leaking Underground Storage Tanks (LUSTs)	N/A	Underground Storage Tanks (USTs)	N/A
Manufactured Gas Plant Sites	N/A	Voluntary Remediation Program	N/A
NPDES Facilities	N/A	Superfund	N/A
NPDES Pipe Locations	N/A	Institutional Control Sites	N/A
Open Dump Sites	N/A		

Explanation: N/A

Ecological Information

The Fountain 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. Coordination with IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile radius of the project area. The project area is in a rural area surrounded mostly by farm fields. A field check on July 10, 2017, confirmed that no evidence of bats was seen or heard under or in the culvert, #CV 234-023-18.14, which is also stated in the June 29, 2017, culvert inspection report. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects" dated October 25, 2017.

Rusty Patched Bumblebees

An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within the 0.5 miles of the project area. No impact is expected.

Cultural Resources

Due to the project's scope, this project falls under categories A-3, A-9, and B-4 of the MPPA. Coordination will occur with INDOT ES Cultural Resources.

RECOMMENDATIONS

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

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INFRASTRUCTURE: N/A

WATER RESOURCES: Due to the proximity of the structure it is likely that additional water resources such as unnamed tributaries, regulated drains, wetlands, and roadside ditches are located in the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects" dated October 25, 2017.

CULTURAL RESOURCES: Due to the project's scope, this project falls under categories A-3, A-9, and B-4 of the MPPA. Coordination will occur with INDOT ES Cultural Resources.

INDOT Environmental Services concurrence: Marlene Mathas Digitally signed by Marlene Mathas
DN: cn=Marlene Mathas, o=INDOT Environmental Services,
ou=Hazardous Materials, email=mmathas@indot.in.gov,
c=US
Date: 2017.11.30 09:13:35 -05'00' (Signature)

Prepared by:
Harlan M. Ford
Environmental Manager 2
INDOT, Crawfordsville

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:

GENERAL SITE MAP SHOWING PROJECT AREA: YES Some graphics omitted to avoid duplication.

INFRASTRUCTURE: YES

WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: YES

HAZMAT CONCERNS: YES

Red Flag Investigation - Infrastructure
 SR-234 at RP 18+14; 1.56 miles E of SR-41
 1600886, Small Structure Replacement
 Fountain County, Indiana



State of Indiana, Geographic Names Information System (GNIS), U.S. Geological Survey, Bernardini, Lochmueller and Associates, Inc. (BLA)

Sources: 0.15 0.075 0 0.15 Miles
 Non Orthophotography

Data - Obtained from the State of Indiana Geographical Information Office Library
 Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N Map Datum: NAD83

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

Des. Number 1600886

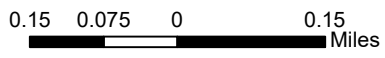
	Religious Facility		Recreation Facility		Project Area
	Religious Facility		Pipeline		Half Mile Radius
	Indiana Map		Railroad		Interstate
	Airport		Trails		State Route
	Cemeteries		Managed Lands		US Route
	Hospital		County Boundary		Local Road
	School				

Red Flag Investigation - Water Resources
 SR-234 at RP 18+14; 1.56 miles E of SR-41
 1600886, Small Structure Replacement
 Fountain County, Indiana



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

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 Des. Number 1600886



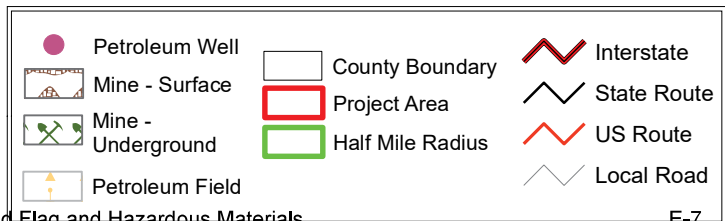
NWI - Point	Wetlands	Project Area
Karst Spring	Lake - Impaired	Half Mile Radius
Canal Structure - Historic	Lake	Interstate
NWI - Line	Floodplain - DFIRM	State Route
Stream - Impaired	Cave Entrance Density	US Route
NPS NRI listed	Sinkhole Area	Local Road
River	Sinking-Stream Basin	
Canal Route - Historic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

Red Flag Investigation - Mining and Mineral Exploration
 SR-234 at RP 18+14; 1.56 miles E of SR-41
 1600886, Small Structure Replacement
 Fountain County, Indiana



Sources: Miles

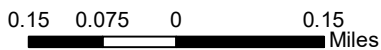
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
 This map is intended to serve as an aid in graphic representation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



Red Flag Investigation - HazMat Concerns
 SR-234 at RP 18+14; 1.56 miles E of SR-41
 1600886, Small Structure Replacement
 Fountain County, Indiana



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



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.
 Des. Number 1600886

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
 E-8

Indiana County Endangered, Threatened and Rare Species List

County: Fountain

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma torulosa torulosa	Tubercled Blossom	LE	SE	G2TX	SX
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Fusconaia subrotunda	Longsolid		SE	G3	SX
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Ligumia recta	Black Sandshell			G4G5	S2
Obovaria retusa	Ring Pink	LE	SX	G1	SX
Obovaria subrotunda	Round Hickorynut		SE	G4	S1
Plethobasus cicatricosus	White Wartyback	LE	SE	G1	SX
Plethobasus cyphus	Sheepnose	LE	SE	G3	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Pleurobema cordatum	Ohio Pigtoe		SSC	G4	S2
Pleurobema plenum	Rough Pigtoe	LE	SE	G1	S1
Pleurobema pyramidatum	Pyramid Pigtoe		SE	G2G3	SX
Ptychobranhus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Simpsonaias ambigua	Salamander Mussel		SSC	G3	S2
Toxolasma lividus	Purple Lilliput		SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Insect: Odonata (Dragonflies)					
Tachopteryx thoreyi	Gray Petaltail		SR	G4	S2S3
Fish					
Percina copelandi	Channel Darter		SE	G4	S2
Amphibian					
Acris blanchardi	Northern Cricket Frog		SSC	G5	S4
Hemidactylium scutatum	Four-toed Salamander		SSC	G5	S2
Lithobates areolatus circulosus	Northern Crawfish Frog		SE	G4T4	S2
Reptile					
Terrapene ornata ornata	Ornate Box Turtle		SE	G5T5	S1
Bird					
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Dendroica cerulea	Cerulean Warbler		SE	G4	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Mammal					
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1

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: Fountain

Species Name	Common Name	FED	STATE	GRANK	SRANK
<i>Taxidea taxus</i>	American Badger		SSC	G5	S2
Vascular Plant					
<i>Androsace occidentalis</i>	Western Rockjasmine		ST	G5	S2
<i>Camassia angusta</i>	Wild Hyacinth		SE	G5?Q	S1
<i>Carex pedunculata</i>	Longstalk Sedge		SR	G5	S2
<i>Circaea alpina</i>	Small Enchanter's Nightshade		SX	G5	SX
<i>Clematis pitcheri</i>	Pitcher Leather-flower		SR	G4G5	S2
<i>Diervilla lonicera</i>	Northern Bush-honeysuckle		SR	G5	S2
<i>Erysimum capitatum</i>	Prairie-rocket Wallflower		ST	G5	S2
<i>Euphorbia obtusata</i>	Bluntleaf Spurge		SE	G5	S1
<i>Fragaria vesca</i> var. <i>americana</i>	Woodland Strawberry		SE	G5T5	S1
<i>Hypericum pyramidatum</i>	Great St. John's-wort		ST	G4	S1
<i>Juglans cinerea</i>	Butternut		WL	G4	S3
<i>Lemna minima</i>	Least Duckweed		SE	GNR	S1
<i>Napaea dioica</i>	Glade Mallow		SR	G4	S2
<i>Onosmodium hispidissimum</i>	Shaggy False-gromwell		SE	G4	S1
<i>Oryzopsis racemosa</i>	Black-fruit Mountain-ricegrass		SR	G5	S2
<i>Pinus strobus</i>	Eastern White Pine		SR	G5	S2
<i>Saxifraga Forbesii</i>	Forbes Saxifrage		SE	G4Q	S1
<i>Selaginella rupestris</i>	Ledge Spike-moss		ST	G5	S2
<i>Silene regia</i>	Royal Catchfly		ST	G3	S2
<i>Taxus canadensis</i>	American Yew		SE	G5	S1
<i>Tragia cordata</i>	Heart-leaved Noseburn		WL	G4	S2
<i>Vaccinium myrtilloides</i>	Velvetleaf Blueberry		SE	G5	S1
High Quality Natural Community					
Forest - floodplain mesic	Mesic Floodplain Forest		SG	G3?	S1
Forest - floodplain wet	Wet Floodplain Forest		SG	G3?	S3
Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	G4	S4
Forest - upland mesic	Mesic Upland Forest		SG	G3?	S3
Prairie - mesic	Mesic Prairie		SG	G2	S2
Primary - cliff sandstone	Sandstone Cliff		SG	GU	S3
Wetland - marsh	Marsh		SG	GU	S4
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1
Other Significant Element					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	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.

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Categorical Exclusion
Appendix F
Water Resources

Waters of the U.S. Determination / Wetland Delineation Report

SR-234, Small Structure Replacement
Fountain County, Indiana
INDOT DES # 1600886
Prepared By: Harlan Ford
Prepared Date: 7/14/2017

Project Description:

Sections 28 & 33, Township 18N, and Range 7W
Wallace Indiana, Quadrangle
Fountain County, Indiana

Project Information: The Indiana Department of Transportation intends to proceed with a project involving bridge structure CV 234-023-18.14 in Fountain County. The current structure is located on SR-234 over a UNT to Panther Creek approximately 1.56 miles east of US-41. The current concrete box beam structure has large amount of spalling and shows major signs of cracking and deterioration on the substructure and superstructure.

INDOT proposes to replace the existing steel beam culvert (12.7' span X 6.8' rise) with a new reinforced concrete box culvert that has a 13' span X 7' rise. The structure will be sumped 1' with class 1 riprap at the inlet and outlet. Appropriate anchors, headwalls, and wing walls will also be constructed. Also approximately 225' of guardrail will be installed on the north and south sides of the structure.

Desktop Reconnaissance:

Soils

According to the Soil Survey Geographic (SSURGO) Database for Fountain County, Indiana, did not contain hydric soils.

<u>Nationally Listed Hydric Soils</u>	<u>Map Abbreviations</u>	<u>Hydric Range</u>
Eel and Beckville soil	EdeAK	3
Strawn Loam	SvqG	0

NWI Wetlands

There are no National Wetlands Inventory (NWI) mapped wetlands within or adjacent to the investigated area. The nearest mapped NWI wetland is located 0.33 miles south of the project area and is classified as a "PUBF" wetland.

Field Reconnaissance:

Date of Field Investigation(s): July 10, 2017

A field visit to the project area was conducted to determine potential Waters of the U.S or Waters of the State. Found wetlands had their boundaries delineated in accordance to United States Army Corps of Engineers *Wetlands Delineation Manual* (1987) and the appropriate regional supplements to the Corps Delineation Manual. Ordinary high water mark (OHWM) measurements were taken when present at a water feature. If present, roadside ditches along the roadway were examined for possible jurisdictional status.

Streams

One or more waterways were observed in the investigated area. A UNT to Panther Creek flows south beneath the structure. The UNT is not a mapped blue line stream, and due to that reason the closest point upstream (.160 miles north from the project area) was selected via StreamStats. This point showed the drainage area at this location as being 0.129 square miles. However, the engineers report states that the drainage area is 0.35 square miles at the project area. This is an intermittent stream that exhibits an ordinary high water mark (OHWM) width (13') and depth (2') measured approximately 10' south of the structure. This stream seems to follow an irregular pattern and would be considered to have moderate sinuosity as it twists and turns around south of the structure. The substrate was considered to be silty within the project area and agricultural and livestock fields surrounds the stream and structure. Also livestock was observed within 100 yards of the stream indicating that a lot of the water entering into this stream is runoff from these fields. Due to all of these factors this stream would be considered to be of poor quality. Due to the presence of an OHWM and distinct bank characteristics, the UNT to Panther Creek is likely to be considered a jurisdictional waterway. This UNT to Panther Creek was the only stream identified within the review area. The project area is 0.17 stream miles north of the convergence with Panther Creek and the UNT to Panther Creek. Panther creek continues to flow to the south for approximately 2.15 stream miles until it converges with Sugar Mill Creek. Sugar Mill Creek flows 8.61 miles to the south/southwest until it converges with Sugar Creek which is a traditional navigable waterway.

Roadside Ditches

No roadside ditches were observed in the investigated area.

Wetlands

One or more wetlands were observed in the investigated area. A wetland (Wetland A) was identified in the northeast quadrant of the existing structure, approximately 15ft. east of the existing structure. *Conium maculatum* (Poison Hemlock) and *Phalaris arundinaceae* (Reed Canary Grass) dominated this quadrant, and both are facultative wet species. Two data points were taken in this area: A1 and A2. Data point A1 exhibited wetland vegetation and notably saturated soil. The type of soil found at A1 was a loamy gleyed matrix starting at 8 inches from the surface. The first 8" of soil was clay loam and it did not exhibit any redox features. This wetland is considered to be of poor quality because it appears to be formed by runoff from nearby fields and the roadway. The wetland also contains a sizeable amount of reed canary grass. Data point A2 did not pass the dominance test for vegetation and did not exhibit any indicators of a wetland. Data point A2 was determined not to be within a wetland. A third data point A3 was performed on the southeast quadrant due to hydrophytic vegetation being present. No hydric soil or wetland hydrology was present at this site and therefore no wetlands were determined to be in

this area. Please see the attached Midwest Region Wetland Determination Data Forms (Version 2.0) for the project.

Open Water

No open water areas were observed in the investigated area.

Conclusions:

Field observations revealed that the investigated area contained **one likely jurisdictional stream (UNT to PANTHER Creek) and one likely jurisdictional wetland (Wetland A)**. Every effort should be taken to avoid and minimize impacts to these waterways. If impacts are necessary, then mitigation may be required. The INDOT Office of Environmental Services should be contacted immediately if impacts occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers (USACE). This report is our best judgement based on the guidelines set forth by the USACE.

Table 1: Stream Summary Table

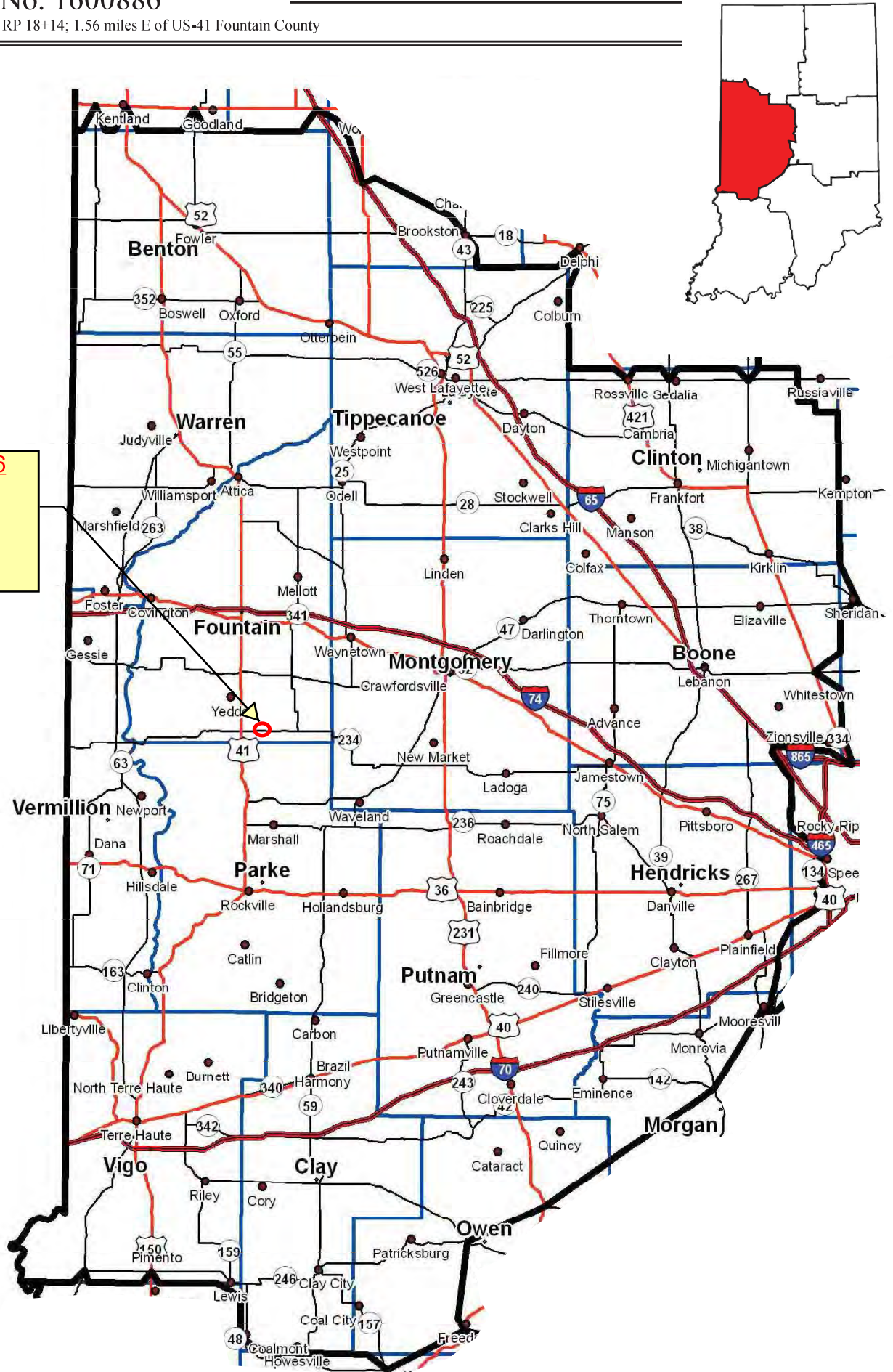
Water Feature Name	Photos	Lat/Long	OHWM Width (ft or in)	OHWM Depth (ft or in)	USGS Blue-line? Type?	Riffles? Pools?	Quality	Substrate	Likely Water of U.S.?
UNT To Panther Creek	1,5,6,7, 12,14	39.967538°N -87.213268°W	13'	2'	No	No	Poor	Silt	Yes

Table 2: Wetland Summary Table

Wetland Name	Photos	Lat/Long	Type	Total Area (acres)	Quality	Likely Water of U.S.?
Wetland A	3,15,16	39.967691°N -87.213129°W	PEM1A	0.011	Poor	Yes

Des. No. 1600886

SR-234 at RP 18+14; 1.56 miles E of US-41 Fountain County



Project Location
SR-234 at RP 18+14 1.56 miles E of SR-41
1600886 , Small Structure Replacement
Fountain County, Indiana



0 .005 0.01 0.02 0.03 0.04
Miles

 Project Area

Orthophotography - Obtained from Indiana Map Framework Data
(www.indianamap.org)
Map Projection: UTM Zone 16 N
Map Datum: NAD83



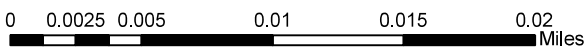
May 8, 2017

Wetlands

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

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.

Field Identified Water Resources
 SR-234 at RP 18+14, 1.56 miles E of US-41
 DES No. 1600886 Small Structure Replacement
 Fountain County, Indiana



- Determination Points
- ▶▶▶▶▶ Likely Jurisdictional Waterway
- Delineated Wetlands
- Project Area

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N
Map Datum: NAD83

NRCS Soils
SR-234 at RP 18+14 1.56 miles E of US-41
1600886, Small Strucutre Replacement
Fountain County, Indiana



Orthophotography - Obtained from Indiana Map Framework
 Data (www.indianamap.org)
Map Projection: UTM Zone 16 N
Map Datum: NAD83

USGS Stream Stats Map
Des. No. 1600886
SR-234 at RP 18+14

StreamStats Report

Region ID:

IN

Workspace ID:

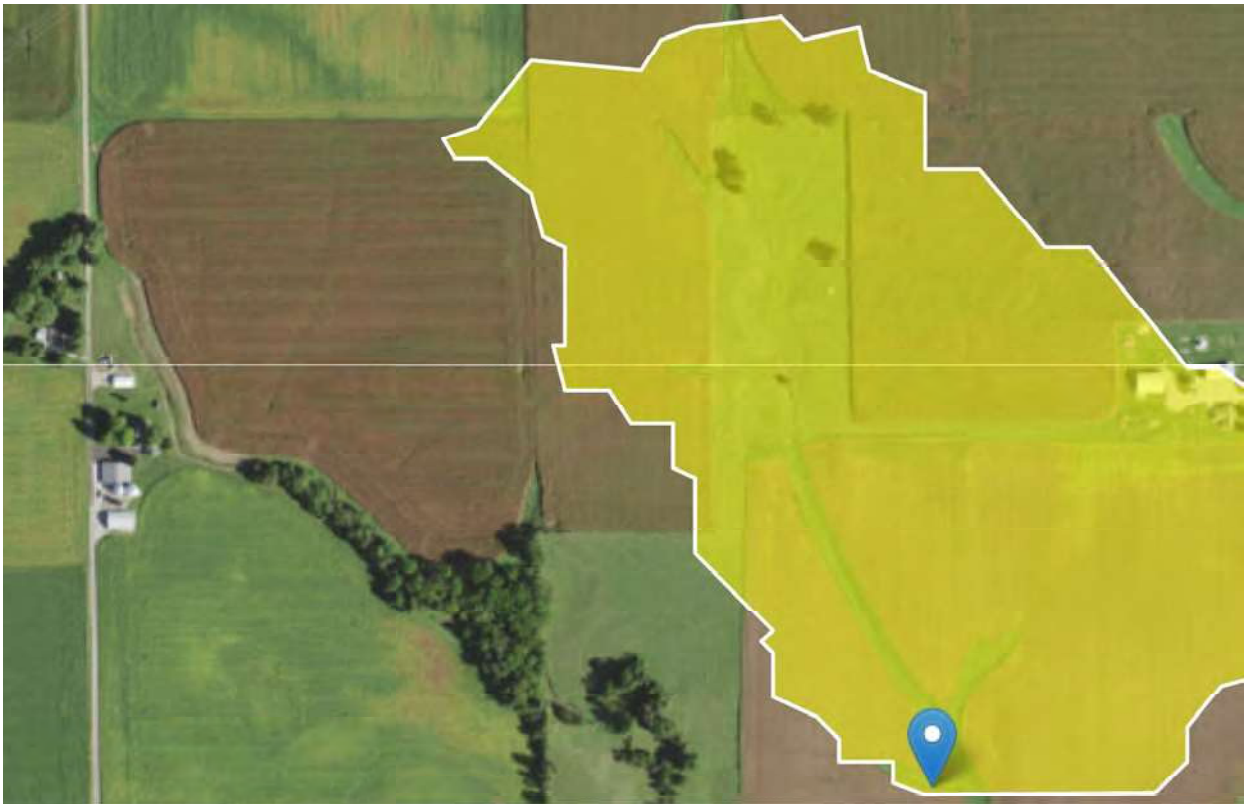
IN20170710140740825000

Clicked Point (Latitude, Longitude):

39.96941, -87.21469

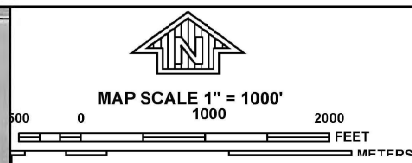
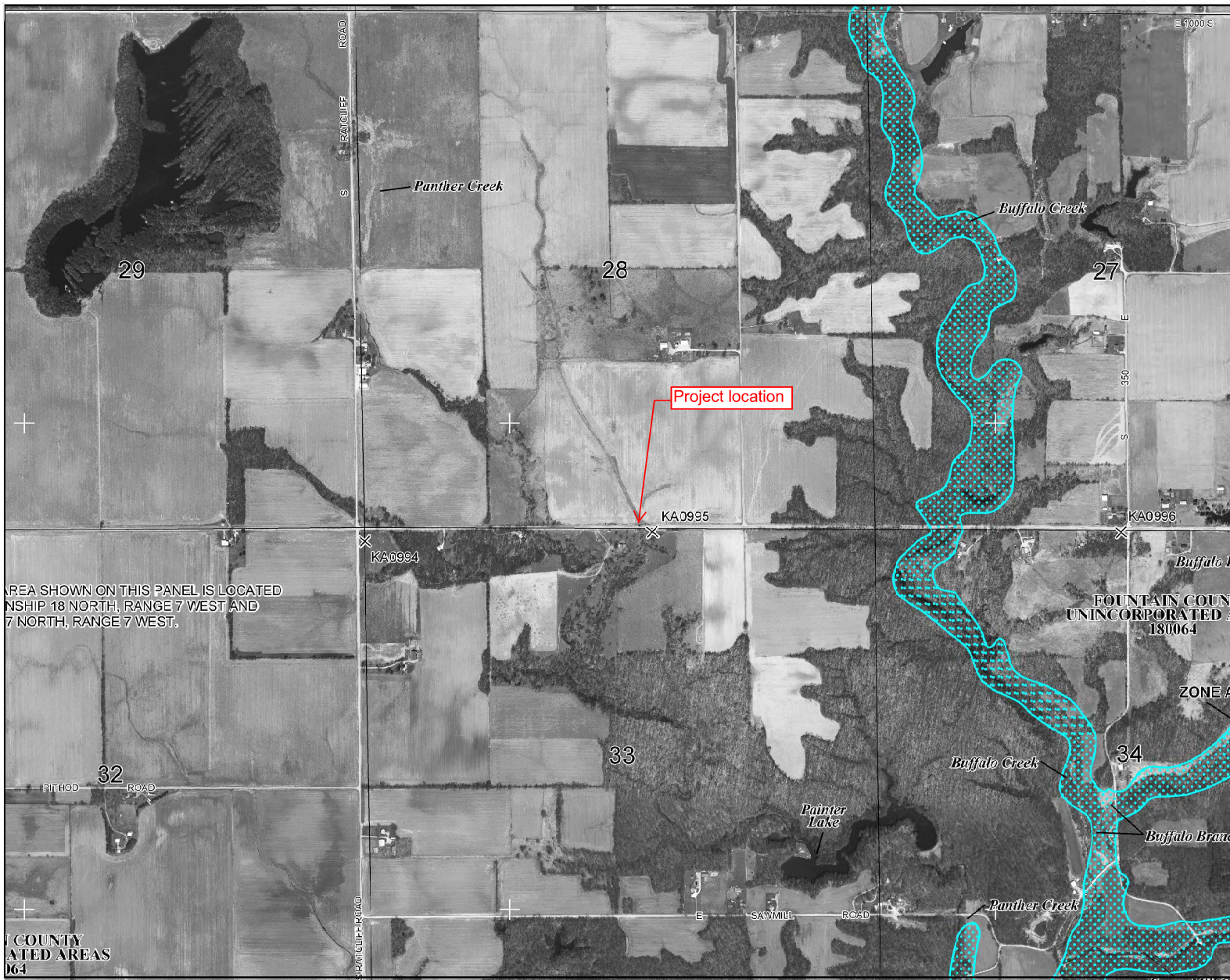
Time:

2017-07-10 14:08:33 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.129	square miles



AREA SHOWN ON THIS PANEL IS LOCATED IN TOWNSHIP 18 NORTH, RANGE 7 WEST AND RANGE 7 NORTH, RANGE 7 WEST.

NFP PANEL 0330C

FIRM
FLOOD INSURANCE RATE MAP
FOUNTAIN COUNTY, INDIANA
AND INCORPORATED AREAS

PANEL 330 OF 375
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FOUNTAIN COUNTY	180064	0330	C

Notice to User: The Map Number shown below should be used when placing map orders, the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
 18045C0330C

EFFECTIVE DATE
 FEBRUARY 6, 2013

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.nrc.fema.gov

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 7-14-17

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Harlan Ford
INDOT, Crawfordsville District
41 W 300 N

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: Des

1600886 Small Strucutre Replacement
SR-234 over UNT to Panther Creek
Sections 28 & 33, Township 18N, Range 7W
Wallace USGS Quadrangle

The existing structure is located on SR-234 over a UNT to Panther Creek, approximately 1.56 miles east of US-41. The current concrete box beam structure will be replaced with a new reinforced concrete box culvert. Pacement of rip rap will occur at the inlet and outlet of the strucutre to aid in scour protection. Also, approximately 225' of new guardrail will be installed on the north and south side of SR-234.

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

State: IN

County/parish/borough: Fountain City: Wallace

Center coordinates of site (lat/long in degree decimal format): Lat. 39.96764° N, Long. -87.21325° W.

Universal Transverse Mercator: NAD 1983

Name of nearest waterbody: UNT to Panther Creek

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

Non-wetland waters: 90 linear feet: 13 width (ft) and/or 0.03 acres.

Cowardin Class: Riverine

Stream Flow: Intermittent

Wetlands: 0.011 acres.
Cowardin Class: Emergent

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

Tidal: N/A

Non-Tidal: N/A

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

Office (Desk) Determination. Date:

Field Determination. Date(s):

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

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

action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there “*may be*” waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .

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

Office concurs with data sheets/delineation report.

Office does not concur with data sheets/delineation report.

Data sheets prepared by the Corps: .

Corps navigable waters’ study: .

U.S. Geological Survey Hydrologic Atlas: .

USGS NHD data.

USGS 8 and 12 digit HUC maps.

U.S. Geological Survey map(s). Cite scale & quad name: .

USDA Natural Resources Conservation Service Soil Survey. Citation: SSURGO.

National wetlands inventory map(s). Cite name: USFWS.

State/Local wetland inventory map(s): .

FEMA/FIRM maps: DFIRM.

100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

Photographs: Aerial (Name & Date):ESRI 2005.

or Other (Name & Date):July 2017 Field Reconnaissance with pictures.

Previous determination(s). File no. and date of response letter: .

Other information (please specify): .

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

Signature and date of
Regulatory Project Manager
(REQUIRED)

7/14/2017
Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

Des. No. 1600886: Likely Waters of the U.S.

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
UNT of Panther Creek	39.967538° N	-87.213268° W	Riverine	0.03 acre	Non-section 10 – non-wetland
Wetland A	39.967691° N	-87.213129° W	PEM1A	0.011 acre	Non-section 10 – wetland

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR-234 Bridge Replacement Des 1600886 City/County: Fountain County Sampling Date: 7/10/2017
 Applicant/Owner: INDOT Crawfordsville District State: IN Sampling Point: A1
 Investigator(s): Sandy Hoover, Harlan Ford, Lisa Libka Section, Township, Range: Section 28, Township 18N, Range 7W
 Landform (hillslope, terrace, etc.): Plains Local relief (concave, convex, none): None
 Slope (%): <5 Lat: 39.967691 N Long: -87.213129 W Datum: NAD 1983, UTM 16 N
 Soil Map Unit Name: Eel and Beckville Soils NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>95</u> x 2 = <u>190</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>95</u> (A) <u>190</u> (B) Prevalence Index = B/A = <u>2.00</u>
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft. radius</u>)				
1. <u>Conium maculatum (Poison Hemlock)</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Phalaris arundinacea (Reed Canary Grass)</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>95</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				

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

SOIL

Sampling Point A1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 2.5/1	100					Clay loam	
8-24	Gley 1 3/10Y	85	10YR 5/8	15			Clay loam	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: <u>N/A</u> Depth (inches): _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____		
Remarks: 								

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

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: 		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR-234 Bridge Replacement Des 1600886 City/County: Fountain County Sampling Date: 7/10/2017
 Applicant/Owner: INDOT Crawfordsville District State: IN Sampling Point: A2
 Investigator(s): Sandy Hoover, Harlan Ford, Lisa Libka Section, Township, Range: Section 28, Township 18N, Range 7W
 Landform (hillslope, terrace, etc.): Plains Local relief (concave, convex, none): None
 Slope (%): <5 Lat: 39.96777 N Long: -87.213094 W Datum: NAD 1983, UTM 16 N
 Soil Map Unit Name: Eel and Beckville Soils NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>90</u> (A) <u>360</u> (B) Prevalence Index = B/A = <u>4.00</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft. radius</u>)				
1. <u>Festuca arundinacea (Tall fescue)</u>	<u>55</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Dactylis glomerata (Orchard grass)</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Asclepias syriaca (Milkweed)</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is $\leq 3.0^1$
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point A2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	7.5YR 3/3	100					Sand loam	Dry & Crumbly

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)
	<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed):
 Type: N/A
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR-234 Bridge Replacement Des 1600886 City/County: Fountain County Sampling Date: 7/10/2017
 Applicant/Owner: INDOT Crawfordsville District State: IN Sampling Point: A3
 Investigator(s): Sandy Hoover, Harlan Ford, Lisa Libka Section, Township, Range: Section 33, Township 18N, Range 7W
 Landform (hillslope, terrace, etc.): Plains Local relief (concave, convex, none): None
 Slope (%): <5 Lat: 39.967561 N Long: -87.213115 W Datum: NAD 1983, UTM 16 N
 Soil Map Unit Name: Eel and Beckville Soils NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft. radius</u>)				
1. <u>Conium maculatum (Poison Hemlock)</u>	55	Y	FACW	
2. <u>Dactylis glomerata (Orchard grass)</u>	15	N	FACU	
3. <u>Asclepias syriaca (Milkweed)</u>	10	N	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
80 = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = 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: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 0 x 1 = 0
 FACW species 55 x 2 = 110
 FAC species 0 x 3 = 0
 FACU species 25 x 4 = 100
 UPL species 0 x 5 = 0
 Column Totals: 80 (A) 210 (B)
 Prevalence Index = B/A = 2.63

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point A3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	7.5YR 4/3	100					Sand loam	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:					
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed):								
Type: <u>N/A</u>								
Depth (inches): _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)				
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)				
Field Observations:					
Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>		
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes _____ No <u>X</u>	Depth (inches): _____			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

Mcgill, Justus

From: Curry, Jennifer
Sent: Friday, July 28, 2017 3:04 PM
To: Ford, Harlan
Cc: Hoover, Sandra (Sandy); Todd, Kristi (INDOT); Bishop, Ann
Subject: APPROVED Waters of U.S. Report for Des. No. 1600886
Attachments: SR234 Des 1600886 Waters of the U.S. Report- Final.pdf

Hi Harlan,

Thank you for submitting the waters report for SR 234 over UNT to Panther Creek, small structure replacement in Fountain County, Designation 1600886. The approved report is attached and can also be found on Projectwise through this link: [SR234 Des 1600886 Waters of the U.S. Report- Final.pdf](#). *It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.*

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

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

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

Jenni Curry

Ecology & Waterway Permitting Specialist
Indiana Department of Transportation
Ph. (317) 232-5135

From: Ford, Harlan
Sent: Friday, July 28, 2017 1:57 PM
To: Curry, Jennifer <JCurry1@indot.IN.gov>
Subject: RE: Waters of U.S. Report for Des. No. 1600886

Hey Jenni,

The revised Waters of U.S. Report for Des. No. 1600886 is attached.

Thanks,

Categorical Exclusion
Appendix G
Public Involvement

This page is intentionally left blank. Reserved for the Legal Notice and
Publisher's Affidavit required for Public Involvement.

Categorical Exclusion
Appendix H
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	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Fountain County																		
Indiana Department of Transportation	2000127	A 17	US 41	Bridge Thin Deck Overlay	0.27 mi N of I-74, NB over Dry Run	Crawfordsville	0	STBG	\$213,737.00	Bridge Construction	CN	\$154,989.60	\$38,747.40				\$193,737.00	
										Bridge Consulting	PE	\$16,000.00	\$4,000.00	\$20,000.00				
Comments:New Project, Add FY20 \$20,000, Add FY23 CN \$193,737, No MPO																		
Indiana Department of Transportation	2000130	A 17	US 41	Bridge Thin Deck Overlay	0.27 mi N of I-74, SB over Dry Run	Crawfordsville	0	STBG	\$213,737.00	Bridge Construction	CN	\$154,989.60	\$38,747.40				\$193,737.00	
										Bridge Consulting	PE	\$16,000.00	\$4,000.00	\$20,000.00				
Comments:New Project, Add FY20 \$20,000, Add FY23 CN \$193,737, No MPO																		
Indiana Department of Transportation	2000848	A 17	SR 341	HMA Overlay, Preventive Maintenance	From SR 234 to 1.88 mi N of SR 234	Crawfordsville	1.85	STBG	\$795,777.00	Road Construction	CN	\$548,621.60	\$137,155.40				\$685,777.00	
										Road Consulting	PE	\$88,000.00	\$22,000.00	\$110,000.00				
Comments:New Project, Add FY20 PE \$110,000, Add FY23 CN \$685,777, No MPO																		
Indiana Department of Transportation	2001093	A 17	US 136	Small Structure Maint and Repair	0.63 mi W of SR 341 S jct	Crawfordsville	0	STBG	\$86,613.00	Bridge Construction	CN	\$62,890.40	\$15,722.60			\$78,613.00		
										Bridge Consulting	PE	\$6,400.00	\$1,600.00	\$8,000.00				
Comments:New Project, Added FY20 PE \$10,000, Add FY22 CN \$78,613, No MPO																		
Fountain County	38262 / 1500232	Init.	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Crawfordsville	0	Multiple		Local Funds	PE	\$0.00	\$32,079.57	\$27,168.14	\$4,911.43			
										Local Bridge Program	PE	\$128,318.30	\$0.00	\$108,672.57	\$19,645.73			
Indiana Department of Transportation	39364 / 1592770	Init.	I 74	Bridge Painting	Shale Pit Rd & Coal CR 0.8mi W US 41, EBL	Crawfordsville	0	NHPP		Bridge Construction	CN	\$1,612,029.60	\$179,114.40	\$1,791,144.00				
Veedersburg	39863 / 1600758	Init.	ST 1001	Signing	Traffic signs & upgrade warning and regulatory signs in the Town of Veedersburg	Crawfordsville	.625	STPBG		Local Funds	CN	\$0.00	\$27,800.00	\$27,800.00				
										Local Safety Program	CN	\$111,200.00	\$0.00	\$111,200.00				
Indiana Department of Transportation	39957 / 1601095	Init.	US 136	Br Repl, Comp.Cont,Pr es.Conc. I-Beam	Bridge over East Fork Coal Creek, 1.97 mi W of SR 25	Crawfordsville	0	STPBG		Bridge Construction	CN	\$2,386,434.40	\$596,608.60		\$2,983,043.00			
Indiana Department of Transportation	39957 / 1601095	A 01	US 136	Br Repl, Comp.Cont,Pr es.Conc. I-Beam	Bridge over East Fork Coal Creek, 1.97 mi W of SR 25	Crawfordsville	0	STPBG	\$3,013,043.00	Bridge ROW	RW	\$24,000.00	\$6,000.00	\$30,000.00				
Comments:RW Phase for \$30,000 FY20, No MPO																		
Indiana Department of Transportation	40100 / 1602073	Init.	US 41	Bridge Thin Deck Overlay	Bridge over Little Shawnee Creek, 0.82 mi S of SR 55	Crawfordsville	0	STPBG		Bridge Construction	CN	\$505,185.60	\$126,296.40	\$631,482.00				

*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.

Categorical Exclusion
Appendix I
Other Information

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated July 2020)

ProjectNumber	SubProjectCode	County	Property
1800122	1800122	Fountain	Ravine Park
1800179	1800179	Fountain	Portland Arch Nature Preserve
1800334	1800334A	Fountain	Covington Park and Pool
1800610	1800610	Fountain	Covington City Park and Pool

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Culvert Inspection Report

CV 234-023-18.14

SR 234

over



Inspection Date: 05/13/2020

Inspected By: Melvin Hughes

Inspection Type(s): Culvert

Inspector: Melvin Hughes
Inspection Date: 05/13/2020

Structure Number: 93000900
Facility Carried: SR 234

Culvert Inspection Report

Executive Summary

2020 Inspection, The structure is in overall very poor condition.M.H.

Scheduled to be replaced under contract B-39957, Des.# 1601095, with a letting date of 10/2020.

Large Culvert Inspection Report

(8) Asset Code:	93000900	(27) Year Built:	0000
Asset Name:	CV 234-023-18.14	(90) Inspection Date:	05/13/2020
OLD Culvert ID:	234-23-18.14	(91) Inspection Frequency:	12
Team Assignment:	01	<input type="checkbox"/> Additional Treatment Exists	

Identification

(2) Highway Agency District:	01	(3) County Code:	023
Sub District:	1200	Ramp ID:	
(42B) Type of Service (Under):	5	<input type="checkbox"/> Adjacent to Roadway	
(7) Facility Carried:	SR 234	(6) Features Intersected:	
(9) Location:	1.56 E US 41	(9.01) Location Additional Description:	
(11) Milepoint:	18.14	(16) Latitude:	39.96764
		(17) Longitude:	-87.21325
Classification:			
(104) Highway System of the Inventory Route:	0	(26) Functional Classification of Inventory Route:	02

Geometric Data

Culvert: Kind of Material:	1. Concrete	Culvert: Type of Structure:	19. 4 Sided Box Culvert	Min Est Fill Cover (ft):	1.00
Culvert: Max. Horizontal Opening (ft.):	12.7	Culvert: Max. Vertical Opening (ft.):	6.8	(34) Skew:	
Barrel Length (ft.):	24.0	Original Culvert Shape:	Box		

Measurement Remarks:

Structure Additional Description: 12.7' x 6.8' Encased Steel Beam

Openings:

Direction	Opening Latitude	Opening Longitude	Direction	Opening Latitude	Opening Longitude
1.			3.		
2.			4.		

Openings Comments:

Follow Up Required:

**If checked, please describe for follow up:

Endangered Species

Bats: seen or heard under structure? * N
 Birds/swallows/nests seen? Empty nests present? N
 * If yes, add one photo to the dropdown field

General Condition Ratings

(36A) Bridge Railings:	0	(36C) Approach Guardrail:	N
(36B) Transitions:	N	(36D) Approach Guardrail Ends:	N

Culvert:

(62) Culvert - Rating: 3

(62) Culvert Rating Comments: *Adjusted overall rating to '3' based on core of slab that indicates it is crumbled with poor strength. The wing walls and coping have severe spalling. There is severe spalling at the south end of the structure with exposed steel beams.*

Deck:

(58) Deck: 3

(58a) Deck Comments: *See Superstructure for deck rating comments.***Superstructure:**

(59) Superstructure: 3

(59.01) Superstructure Comments: *Adjusted overall rating to '3' based on core of slab that indicates it is crumbled with poor strength. There is severe spalling at the south end of the structure with exposed steel beams. The encased steel beams are exposed at the south corners with heavy rusting. The coping has heavy amount of spalling with section loss.*

Substructure:

(60) Substructure: 4

(60.01) Substructure Comments: *There is a moderate amount of cracking with some areas of efflorescence on the abutments. Also the northeast and southwest ends of the abutments have spalling.*

CV-Headwall/Anchor Rating 7

CV-Wingwalls Rating 4

Channel:

(61) Channel and Channel Protection: 5

(61.01) Channel and Channel Protection Comments: *The water flows from the north to the south. There is a large area of scour at the south end of the structure. Also the concrete apron on the south end is broken up and water flows under it.*

Bank Erosion Rating: 6

Drift/Sediment Rating: 6

Channel Alignment Rating: 7

Check this box if culvert has **OBSTRUCTED** flow

Describe Obstruction:

Overtopping Frequency: 1

Overtopping Frequency Comments:

Environmental Justice

Analysis of One Census Tract in Fountain County, Indiana

	COC	AC 1	
	Fountain County, Indiana	Census Tract 9580, Fountain County, Indiana	
LOW-INCOME			
B17001001	Population for whom poverty status is determined: Total	16,225	3,236
B17001002	Population for whom poverty status is determined: Income in past 12 months below poverty level	1,912	323
	Percent Low-income	11.8%	10.0%
	125 Percent of COC	14.7%	AC < 125% COC
	Potential Low-income EJ Impact?		No
MINORITY			
B03002001	Total population: Total	16486	3272
B03002002	Total population: Not Hispanic or Latino	16080	3227
B03002003	Total population: Not Hispanic or Latino; White alone	15732	3193
B03002004	Total population: Not Hispanic or Latino; Black or African American alone	60	2
B03002005	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	10	0
B03002006	Total population: Not Hispanic or Latino; Asian alone	88	0
B03002007	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0
B03002008	Total population: Not Hispanic or Latino; Some other race alone	0	0
B03002009	Total population: Not Hispanic or Latino; Two or more races	190	32
B03002010	Total population: Hispanic or Latino	406	45
B03002011	Total population: Hispanic or Latino; White alone	347	28
B03002012	Total population: Hispanic or Latino; Black or African American alone	0	0
B03002013	Total population: Hispanic or Latino; American Indian and Alaska Native alone	17	17
B03002014	Total population: Hispanic or Latino; Asian alone	0	0
B03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0
B03002016	Total population: Hispanic or Latino; Some other race alone	42	0
B03002017	Total population: Hispanic or Latino; Two or more races	0	0
	Number Non-white/minority (B03002001-B03002003)	754	79
	Percent Non-white/Minority	4.6%	2.4%
	125 Percent of COC	5.7%	AC < 125% COC
	Potential Minority EJ Impact?		No

County Selection Map

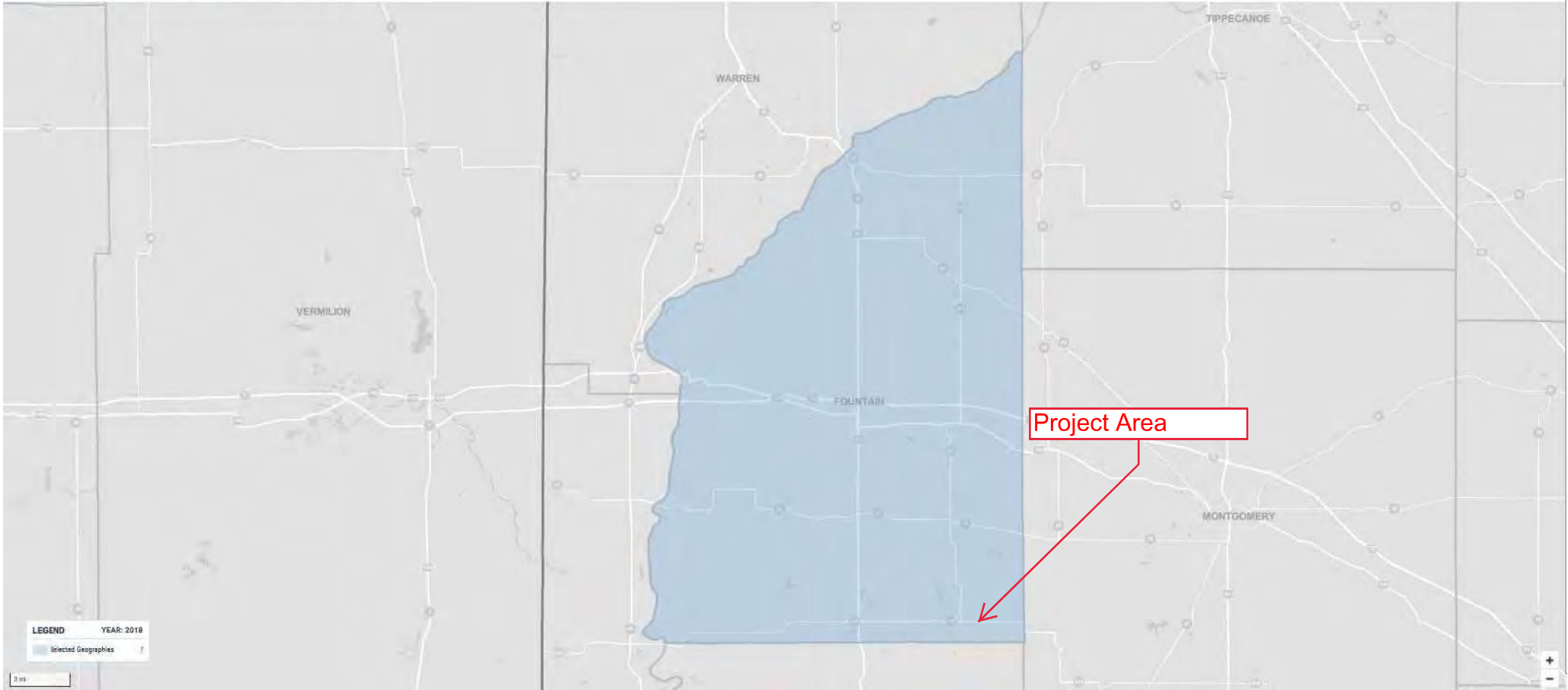
Geographies:

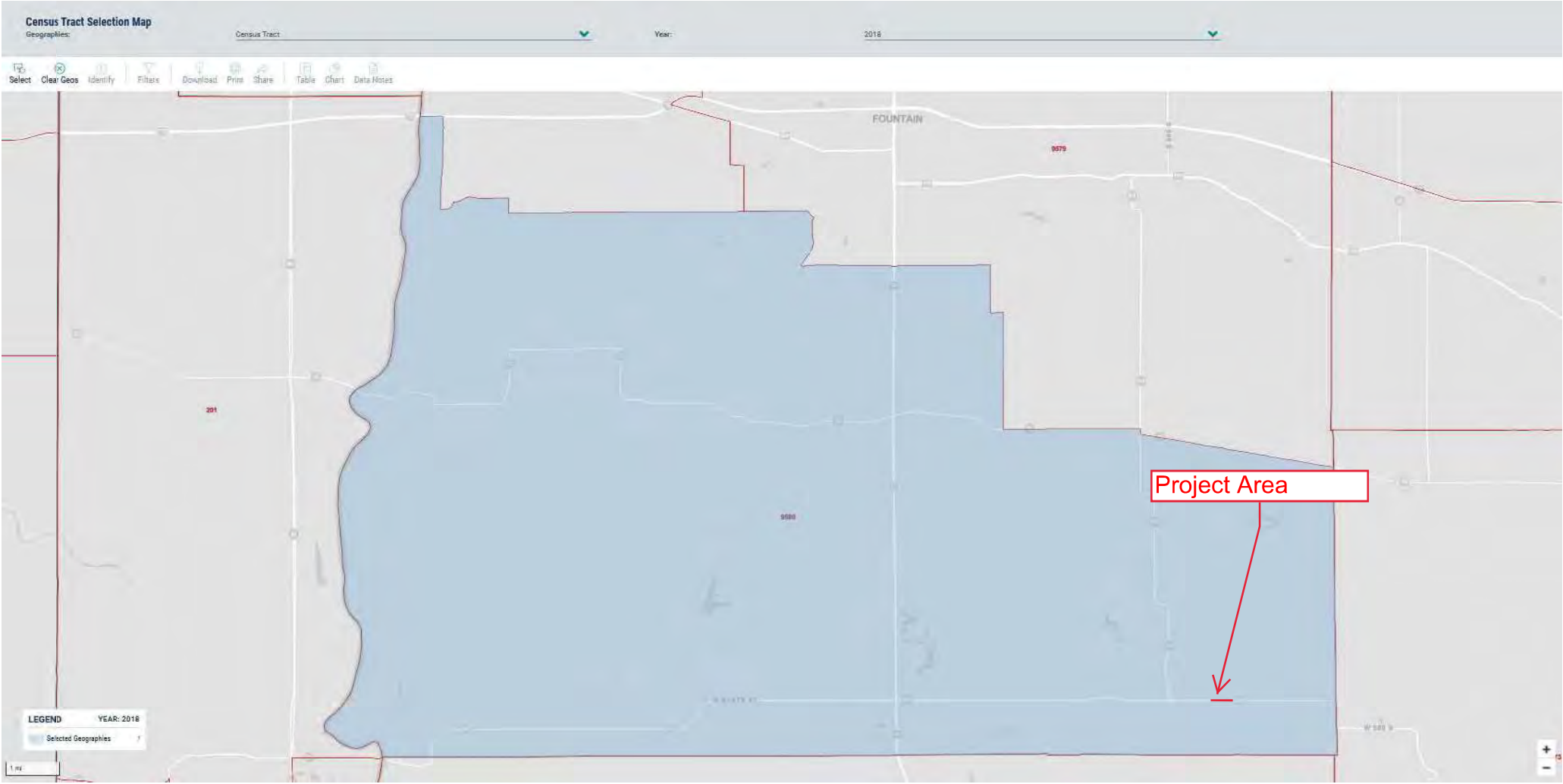
County

Year:

2018

- Select
- Clear Geos
- Identify
- Filters
- Download
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- Table
- Chart
- Data Notes





HISPANIC OR LATINO ORIGIN BY RACE

Survey/Program: American Community Survey
TableID: B03002

Product: 2018 ACS 5-Year Estimates Detailed Tables
Universe: Total population

	Fountain County, Indiana		Census Tract 9580, Fountain County, Indiana	
Label	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	16,486	±220	3,272	±220
▼ Not Hispanic or Latino:	16,080	±212	3,227	±212
White alone	15,732	±19	3,193	±211
Black or African American alone	60	±32	2	±4
American Indian and Alaska Native alone	10	±13	0	±11
Asian alone	88	±67	0	±11
Native Hawaiian and Other Pacific Islander alone	0	±19	0	±11
Some other race alone	0	±18	0	±11
▶ Two or more races:	190	±72	32	±22
▼ Hispanic or Latino:	406	±51	45	±51
White alone	347	±60	28	±43
Black or African American alone	0	±19	0	±11
American Indian and Alaska Native alone	17	±26	17	±26
Asian alone	0	±19	0	±11
Native Hawaiian and Other Pacific Islander alone	0	±19	0	±11
Some other race alone	42	±51	0	±11
▶ Two or more races:	0	±18	0	±11

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey Universe: Population for whom poverty status is determined TableID: B17001 Product: 2018: ACS 5-Year Estimates Detailed Tables

[Data Notes](#)
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Label	Fountain County, Indiana		Census Tract 9580, Fountain County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	16,225	±71	3,236	±218
➤ Income in the past 12 months below poverty level:	1,912	±280	323	±128
➤ Income in the past 12 months at or above poverty level:	14,313	±280	2,913	±288