

Categorical Exclusion

Appendix F

Water Resources

Waters of the U.S. Determination Report
Marshall Co. Bridge #73
Marshall County, Indiana
Des. No. 1600931



November 16, 2018

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Waters of the U.S. Determination Report
Marshall Co. Bridge #73 – Bridge Replacement Project
Marshall County, Indiana
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Waters of the U.S. Determination Report
Marshall Co. Bridge #73 – Bridge Replacement Project
Marshall County, Indiana
Des. No. 1600931

Date of Waters Investigation

September 25 and 26, 2018 and October 2, 2018

Location

The project is located in north central Marshall County, approximately 0.54 mile east of US-31 in Marshall County, Indiana (Attachment A1).

- Marshall County, Center Township, Indiana
- Section 26, Township 34 North, Range 2 East
- Plymouth 1:24,000 United States Geological Survey (USGS) Quadrangle (Attachments A2 and A3).

Project Description

The Federal Highway Administration and Marshall County, with oversight by the Indiana Department of Transportation (INDOT), propose to proceed with a bridge replacement project in north central Marshall County, Indiana. The proposed project will replace the existing bridge identified as Bridge #50-00073 which carries King Road over the Yellow River. The existing structure is a four span bridge built in 1966 and is 152 feet long with a 24.3 foot clear roadway width. The construction of the new structure will include embankment widening, benching the sideslopes, the construction a new drive that will tie into an existing private drive, and the removal of an existing overflow pipe. The new structure will be longer, taller, and slightly wider than the existing structure. Excavation within the Yellow River will occur in order to install the substructure units. The MOT for this project will require full closure of King Road and a detour route will be determined. MOT design will follow the criteria outlined in the *Indiana Design Manual*.

National Wetlands Inventory (NWI)

Based on the U.S. Fish and Wildlife National Wetlands Inventory (NWI) data (www.fws.gov/wetlands/Data/State-Downloads.html) there are eight wetland polygon mapped within the survey area (Attachments A5). There are three palustrine, forested, broad-leaved deciduous, seasonally flooded (PFO1C) wetlands, two palustrine, forested, broad-leaved deciduous, emergent, persistent, seasonally flooded (PFO1/EM1C) wetlands, and two palustrine, unconsolidated bottom, semi permanently flooded (PUBF) wetlands as classified by Cowardin *et al.* 1979. One wetland polygon represents the riverine wetland for the Yellow River. This wetland is a riverine, lower perennial, unconsolidated bottom, permanently flooded wetland (R2UBH). There are 20 additional NWI polygons within a 0.5 mile radius of the survey area. These are as follows:

- Three PFO1A (palustrine, forested, broad-leaved deciduous, temporary flooded) wetlands.
- Three PUBFx (palustrine, unconsolidated bottom, semipermanently flooded, excavated) wetlands.
- One PEM1A (palustrine, emergent, persistent, temporarily flooded) wetland.
- Two (palustrine, forested, broad-leaved deciduous, emergent, persistent, seasonally flooded) PFO1/EM1C wetlands.
- Two PUBF wetlands.



- Two PSS1/EM1C (palustrine, scrub-shrub, broad-leaved deciduous, emergent, persistent, seasonally flooded) wetlands.
- One PFO1C wetland.
- One R2UBFx (riverine, lower perennial, unconsolidated bottom, semipermanently flooded, excavated) wetland.
- Three PUBG (palustrine, unconsolidated bottom, intermittently exposed) wetlands.
- Two PEM1C (palustrine, emergent, persistent, seasonally flooded) wetlands.

Streams

HYDROGRAPHY_HIGHRES_FLOWLINE_NHD_USGS: Streams, Rivers, Canals, Ditches, Artificial Paths, Coastlines, Connectors, and Pipelines in Watersheds of Indiana (U. S. Geological Survey, 1:24,000, Line Shapefile) and the Plymouth 1:24,000 scale USGS topographic map indicate that Yellow River is a perennial blueline stream that flows from northeast to the southwest through the survey area (Attachments A2 and A3).

Soils

The Soil Survey Geographic (SSURGO) database for Marshall County includes the following mapped soil series within the Marshall Co. Bridge #73 Replacement Project (Attachments A7-A12).

- **Coloma sand (CnbB), 2 to 5 percent slopes:** consists of very deep, somewhat excessively drained or excessively drained soils formed in sandy drift. These soils are on moraines, outwash plains, deltas, and stream terraces. Slope ranges from 2 to 5 percent. Coloma sand is not considered hydric and has a hydric rating of 0.
- **Coloma sand (CnbC), 5 to 10 percent slopes:** consists of very deep, somewhat excessively drained or excessively drained soils formed in sandy drift. These soils are on moraines, outwash plains, deltas, and stream terraces. Slope ranges from 5 to 10 percent. Coloma sand is not considered hydric and has a hydric rating of 0.
- **Riddles-Metea complex (RoqB), 1 to 5 percent slopes:** The Riddles series consists of very deep, well drained soils formed in loamy and sandy till on till plains and moraines. Slope ranges from 0 to 35 percent. The Metea series consists of very deep, well drained soils formed in wind or water laid sandy material and the underlying till on moraines and till plains. Slope ranges from 1 to 5 percent. The Riddles- Metea complex is not considered hydric and has a hydric rating of 0.
- **Tyner loamy sand (TxuB), 1 to 5 percent slopes:** consists of very deep, excessively drained soils formed in sandy outwash or beach deposits on outwash plains and outwash terraces, and on beaches and offshore bars on lake plains. Slope ranges from 1 to 5 percent. Tyner loamy sand is not considered hydric and has a hydric rating of 0.
- **Waterford-Cohoctah loams (WciAH), 0 to 2 percent slopes, frequently flooded, brief duration:** consists of very deep, somewhat poorly drained soils formed in loamy alluvium underlain by gravelly or sandy alluvium on flood plains. Slope ranges from 0 to 2 percent. Waterford-Cohoctah loams are considered hydric and have a hydric rating of 90.

Hydrology

According to the Indiana Floodplain Information Portal, the project crosses the 100-year floodplain for the Yellow River (<http://dnrmapping.dnr.in.gov/appsphp/fdms/>). According to the USGS StreamStats Websites (<https://water.usgs.gov/osw/streamstats/indiana.html>) the Yellow River drains 265.674 square miles



upstream of the project area. The base floodplain elevation (BFE) in the project area is 787 feet. The project area is within the Headwaters Yellow River Watershed with the 12 digit Hydrologic Unit Code (HUC) 071200010312.

Field Reconnaissance

Lochmueller Group conducted a field review for streams and wetlands within the survey area for the Marshall Co. Bridge #73 Bridge Replacement Project on September 25 and 26, 2018 and October 2, 2018. Three wetland features were identified within the study area. One stream, Yellow River, was also identified. As illustrated in the ground level photographs included as Attachments A16 to A45, no roadside ditches with Ordinary High Water Mark (OHWM) characteristics were observed.

Wetland Analysis

Wetland determinations were conducted in accordance with the *U.S. Army Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement of the Corps of Engineers Wetland Delineation Manual: Midwest 2.0* (2010).

The September 25 and 26, 2018 and October 2, 2018 field investigation for the Marshall Co. Bridge #73 Bridge Replacement Project resulted in the evaluation of three jurisdictional wetlands, Wetlands 1-3.

Wetland 1

Wetland 1 is a palustrine, emergent, persistent, temporarily flooded (PEM1A) wetland according to the classifications defined by Cowardin *et al.* (1979). Wetland 1 is 0.48 acre in size. This wetland developed due to floodplain flooding and ponding. As demonstrated by the project photos (Attachments A25 to A28), Wetland 1 is bounded on the north and south side by small topographic rises. Based on a qualitative analysis of Wetland 1, this wetland is of average quality due to its position within the floodplain of Yellow River. Wetland 1 is likely a Water of the U.S. due to hydrologic connectivity to Yellow River, which becomes a Traditionally Navigable Water (TNW) downstream of the project area.

Data Point 2

This wetland data point represents conditions within Wetland 1. The entire wetland was relatively homogeneous, with little topographic variation; therefore, Data Point 2 is representative of the entire wetland. Vegetation was limited to the herbaceous stratum. Dominant vegetation consisted of reed canary grass (*Phalaris arundinacea*, FACW) and common bulrush (*Scirpus atrovirens*, OBL). This data point passes the rapid test for hydrophytic vegetation. One hundred percent of the dominant species within this plot were FACW or wetter, therefore the vegetation passes the rapid test for hydrophytic vegetation. Soils within a pit excavated to a depth of 20 inches consisted of N 2.5/ mucky soils. This soil meets the criteria for hydric soil indicator A10, 2cm Muck. Hydrology indicators observed were Saturation at 1 inch (A3), Geomorphic Position (D2), and the FAC-Neutral Test (D5).

This data point met all three wetland criteria, and therefore can be considered to be within a wetland, Wetland 1. The data form prepared for this data point is included as Attachments A48-A49.

Data Point 3

Data Point 3 is located along the roadside, within the maintained right-of-way, that delineates the western boundary of Wetland 1. Dominant vegetation was limited to the herbaceous stratum and was dominated



by common plantain (*Plantago major*, FAC), Kentucky bluegrass (*Poa pratensis*, FAC), and wild chives (*Allium schoenoprasum*, FAC). One hundred percent of the dominant species within this data point were FAC or wetter, therefore the data point meets hydrophytic vegetation requirements. Soils within a pit excavated to a depth of 13 inches consisted of 4 inches of 10YR 3/2 sandy soils. From 4-8 inches, soils were 2.5Y 6/6. From 8-13 inches, soils were 10YR 3/2. Soils could not be excavated past 13 inches due to compacted soils and gravel. This soil does not meet any of the criteria for hydric soil indicators. No primary or secondary indicators of hydrology were observed. Data Point 3 failed to meet hydric soil indicators and wetland hydrology indicators and therefore can be considered to be upland. The data form prepared for this data point is included as Attachments A50-A51.

Wetland 2

Wetland 2 is a palustrine, forested, broad-leaved deciduous, temporary flooded (PFO1A) wetland according to the classifications defined by Cowardin et al. (1979). Wetland 2 is 0.11 acre in size. This wetland developed due to floodplain flooding and ponding. As demonstrated by the project photos (Attachments A32 to A34 and A36), Wetland 2 is bounded on the north side by the Yellow River and on the south side by a small topographic rise. Based on a qualitative analysis of Wetland 2, this wetland is of average quality due to its position within the floodplain of Yellow River. Wetland 2 is likely a Water of the U.S. due to hydrologic connectivity to Yellow River, which becomes a TNW downstream of the project area.

Data Point 4

This wetland data point represents conditions within Wetland 2. The entire wetland was relatively homogeneous, with little topographic variation; therefore, Data Point 4 is representative of the entire wetland. Vegetation was limited to the herbaceous stratum. Dominant vegetation consisted of rice cut grass (*Leersia oryzoides*, OBL), lady's thumb (*Persicaria longiseta*, FAC), and clearweed (*Pilea pumila*, FACW). One hundred percent of the dominant species within this plot were FAC or wetter, therefore the vegetation passes the dominance test for hydrophytic vegetation. Soils within a pit excavated to a depth of 18 inches consisted of 3 inches of 10YR 3/1 sandy soils. From 3-9 inches, soils consisted of 95 percent of 10YR 3/1, 3 percent of 10YR 6/6, and 2 percent 5YR 6/3 of redox concentrations along the pore linings. From 9-18 inches, soils consisted of 70 percent of 10YR 6/6 with 30 percent of 10YR 3/1 sandy soils. This soil meets the criteria for hydric soil indicator S7, Dark Surface and F6, Redox Dark Surface. Hydrology indicators observed were Drift Deposits (B3), Geomorphic Position (D2), and the FAC-Neutral Test (D5).

This data point met all three wetland criteria and therefore can be considered to be within a wetland, Wetland 2. The data form prepared for this data point is included as Attachments A52-A53.

Data Point 5

Data Point 5 is located west of the roadside, south of the boundary of Wetland 2. Dominant vegetation within the tree stratum consisted of honey locust (*Gleditsia triacanthos*, FACU), slippery elm (*Ulmus rubra*, FAC), and black walnut (*Juglans nigra*, FACU). Dominant vegetation within the herbaceous stratum was dominated by jumpseed (*Persicaria virginiana*, FAC), American pokeweed (*Phytolacca Americana*, FACU), beggars lice (*Hackelia virginiana*, FACU), and spotted ladythumb (*Persicaria maculosa*, FACW). Less than fifty percent of the dominant species within this data point were FAC or wetter, therefore the data point does not pass the dominance test for hydrophytic vegetation. Soils within a pit excavated to a depth of 15 inches consisted of 6 inches of 10YR 3/1 (100%) loamy clay soils. From 6-15 inches, soils were 10YR 6/6



(100%) sandy soils. This soil does not meet any of the criteria for hydric soil indicators. Soils were not excavated past 15 inches due to a root restriction. No primary or secondary indicators of hydrology were observed. Data Point 5 failed to meet all three wetland criteria and therefore can be considered to be upland. The data form prepared for this data point is included as Attachments A54-A55.

Wetland 3

Wetland 3 is a palustrine, emergent, persistent, temporarily flooded (PEM1A) wetland according to the classifications defined by Cowardin et al. (1979). Wetland 3 is 0.54 acre in size. This wetland developed due to floodplain flooding and ponding. As demonstrated by the project photos (Attachments A39 to A58), Wetland 3 is bounded on the north side by Plymouth Goshen Trail Road and on the south side by a small topographic rise. Based on a qualitative analysis of Wetland 3, this wetland is of poor quality due to the lack of biodiversity. Wetland 3 is likely a Water of the U.S. due to hydrologic connectivity to Yellow River, which becomes a TNW downstream of the project area.

Data Point 6

This wetland data point represents conditions within Wetland 3. The entire wetland was relatively homogeneous, with little topographic variation; therefore, Data Point 6 is representative of the entire wetland. Vegetation was limited to one species in the herbaceous stratum, reed canary grass (*Phalaris arundinacea*, FACW). One hundred percent of the dominant species within this plot were FACW or wetter, therefore the vegetation passes the rapid test for hydrophytic vegetation. Soils within a pit excavated to a depth of 21 inches consisted of 5 inches of 92 percent of 10YR 3/2 loamy clay soils with 8 percent of 5YR 4/6 redox concentrations along the pore linings and in the matrix. From 5-21 inches, soils consisted of 97 percent of N 3/ loamy clay soils with 3 percent of 5YR 4/6 redox concentrations within the matrix. This soil meets the criteria for hydric soil indicators Depleted Matrix (F3) and Redox Dark Surface (F6). Hydrology indicators observed were Oxidized Rhizospheres on Living Roots (C3), Geomorphic Position (D2), and the FAC-Neutral Test (D5).

This data point met all three wetland criteria and therefore can be considered to be within a wetland, Wetland 3. The data form prepared for this data point is included as Attachments A56-A57.

Data Point 7

Data Point 7 is located west of King Road, south of the boundary of Wetland 3. Dominant vegetation within the tree stratum consisted of black walnut (*Juglans nigra*, FACU), swamp white oak (*Quercus bicolor*, FACW), and black cherry (*Prunus serotina*, FACU). Dominant vegetation within the herbaceous stratum consisted of Canadian clearweed (*Pilea pumila*, FACW) and stinging nettle (*Urtica dioica*, FACW). Greater than fifty percent of the dominant species within this data point were FAC or wetter, therefore the data point passes the dominance test for hydrophytic vegetation. Soils within a pit excavated to a depth of 18 inches consisted entirely of 10YR 3/2 sandy soils. This soil does not meet any of the criteria for hydric soil indicators. Hydrology indicators observed were Geomorphic Position (D2) and the FAC-Neutral Test (D5). Data Point 5 failed to meet hydric soil indicators and therefore can be considered to be upland. The data form prepared for this data point is included as Attachments A58-A59.



Table 1: Wetland Summary Table

Wetland	Photos	Lat/Long	Acres	Quality	Water of the U.S.?
Wetland 1	20-25	41.3704°, -86.2613°	0.48	Average	Yes
Wetland 2	34-38, 42	41.3688°, -86.2617°	0.11	Average	Yes
Wetland 3	47-58	41.3703°, -86.2617°	0.54	Poor	Yes

Additional Data Points

Data Point 1

This data point was taken south of Yellow River, east of King Road. Dominant vegetation within the tree stratum was limited to silver maple (*Acer saccharinum*, FACW). Dominant vegetation within the herbaceous stratum was limited to reed canary grass (*Phalaris arundinacea*, FACW). One hundred percent of the dominant species within this data point were FACW or OBL; therefore, the data point passes the rapid test for hydrophytic vegetation. Soils within a pit excavated to a depth of 15 inches consisted of 99 percent 10YR 3/1 loamy clay soils with 1 percent concentrations of 10YR 4/2 within the matrix. This soil does not meet any of the criteria for hydric soil indicators. Hydrology indicators observed were Drainage Patterns (B10), Geomorphic Position (D2), and the FAC-Neutral Test (D5). Data Point 1 failed to meet hydric soil indicators and therefore can be considered to be upland. The data form prepared for this data point is included as Attachments A46-A47.

Table 1: Wetland Data Point Summary

Data Point	Hydrophytic vegetation?	Hydric soils?	Hydrology Indicators?	Wetland
DP1	Yes	No	Yes	No
DP2	Yes	Yes	Yes	Yes
DP3	Yes	No	No	No
DP4	Yes	Yes	Yes	Yes
DP5	No	No	No	No
DP6	Yes	Yes	Yes	Yes
DP7	Yes	No	Yes	No

Stream Analysis

The September 25 and 26, 2018 and October 2, 2018 field investigations for the Marshall County Bridge #73 Bridge Replacement Project resulted in the evaluation of one jurisdictional stream. No roadside ditches with an ordinary high water mark (OHWM) were observed or documented.

Yellow River

Yellow River is a stream feature that flows from northeast to southwest within the survey area, crossed by the bridge to be replaced. Approximately 360 feet of this feature was evaluated as part of this field



investigation, 30 feet of which is currently bridged. This feature appears to be a recovering channel, conveying upstream flow and r drainage from the surrounding area. The downstream reach of Yellow River is characterized by a wide, moderately deep channel with cobble, sand, and silts substrate. Pools were observed, but no riffles were observed. Some overhanging vegetation was observed. The upstream reach of Yellow River is characterized by a wide, deeper channel with minimally undercut banks. The substrate was silt, sand, gravel, and cobble. Some overhanging vegetation was also observed. A dam formed by woody debris and the bridge formed a deep pool upstream of the bridge.

The riparian corridor within the area of the bridge is forested in all four quadrants. The forested quadrants are dominated by silver maple (*Acer saccharinum*), black walnut (*Juglans nigra*) and slippery elm (*Ulmus rubra*). The stream banks are dominated by reed canary grass (*Phalaris arundinacea*). The upstream OHWM was 85 feet wide by 33 inches deep. The downstream OHWM was 74.1 feet wide by 23 inches deep. According to the classification codes developed by Cowardin *et al.* (1979), this stream feature would be classified as a riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) resource. Based on a qualitative assessment, this resource is fair quality based on the wide riparian corridor, but minor instream cover. Yellow River is likely a Water of the U.S. because it becomes a TNW approximately 2.5 miles downstream of the project area.

Table 3: Stream Summary Table

Stream	Photos	Lat/Long	OHWM	USGS Blueline?	Substrate	Riffles and Pools?	Quality	Water of the U.S.?
Yellow River	9, 11- 12, 14- 16, 18, 33, 39- 41, 59	41.3690° -86.2615°	85' wide x 33" deep	Yes	Upstream: silt/sand/gravel/cobble Downstream: cobble/sand/silt	Pools: Yes Riffles: No	Fair	Yes

Conclusions

The September 25 and 26, 2018 and October 2, 2018 field investigations for the Marshall Co. Bridge #73 Bridge Replacement Project identified three wetlands and one stream, Yellow River, within the identified survey area. Yellow River is likely a Water of the U.S. because it becomes a TNW downstream of the project area. Wetlands 1-3 are likely Waters of the U.S. due to hydrologic connectivity to Yellow River. No roadside ditches with OHWMs were identified within the survey area.

Every effort should be taken to avoid and minimize the impacts to the water resources listed above. Disturbance of a wetland or stream could result in a mitigation requirement to secure the required permits for the bridge replacement project. If construction exceeds the limits of the survey review area illustrated in this document, further field investigation will be needed. This report is this office's best judgment of water resources that are likely to be under federal jurisdiction, based on the guidelines set forth by the U.S. Army Corps of Engineers (USACE). The final determination of jurisdictional waters is ultimately the responsibility of the USACE.

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 Instructional Guidebook*, and other appropriate agency guidelines.

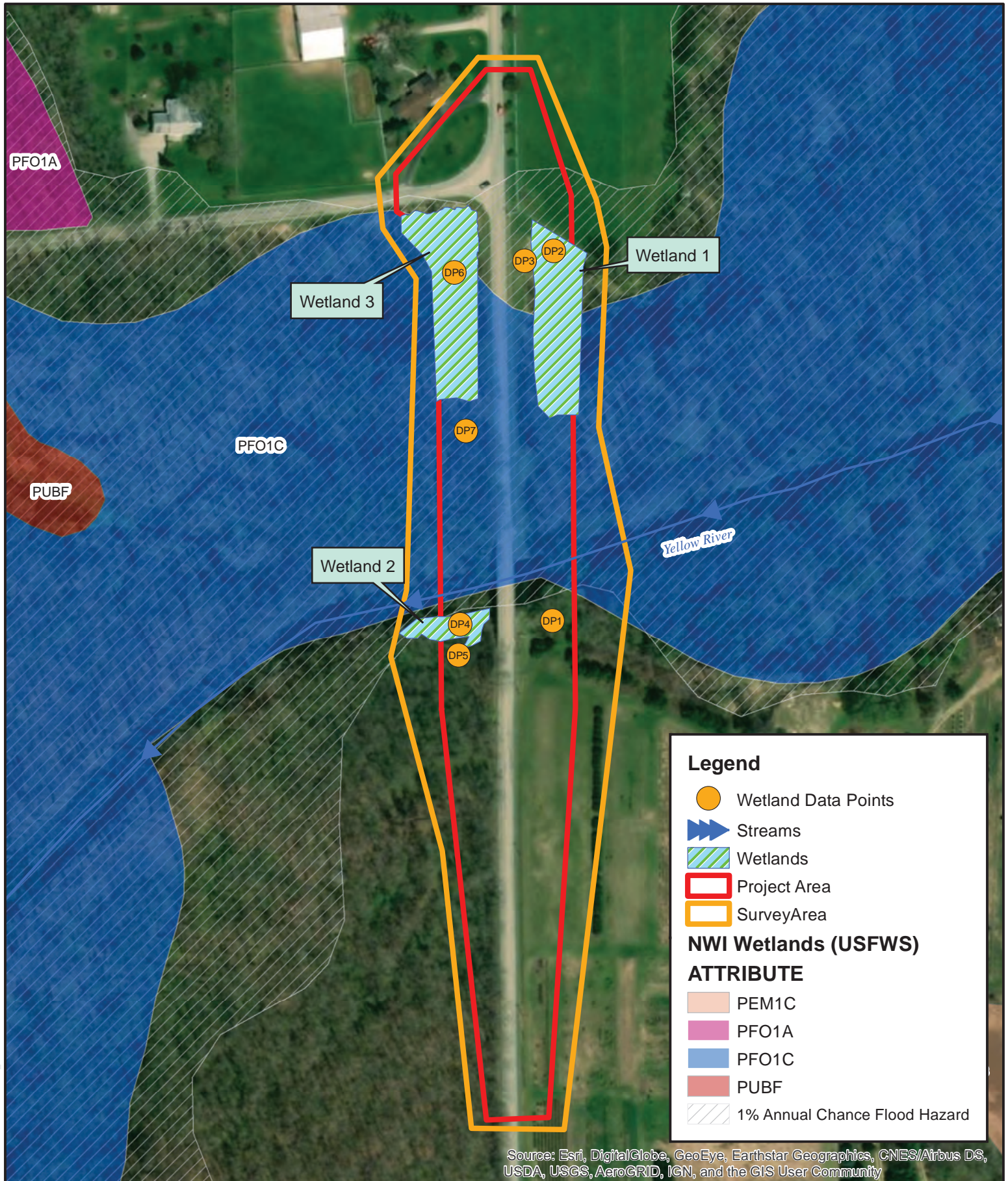
Preparers

Lochmueller Group, Inc. Staff	Position	Contributing Effort
Ruth Hook, CPESC, CESSWI	Environmental Biologist	Field Data Collection Report Preparation
Samantha Beaupre	Environmental Biologist	Report Preparation
Chris Kunkel	Environmental Biologist	Field Data Collection



ATTACHMENTS





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Water Resources Map

Des. No. 1600931
Waters of the U.S. Report

0 150 300
Feet



County: Marshall
Township: Center
State: Indiana

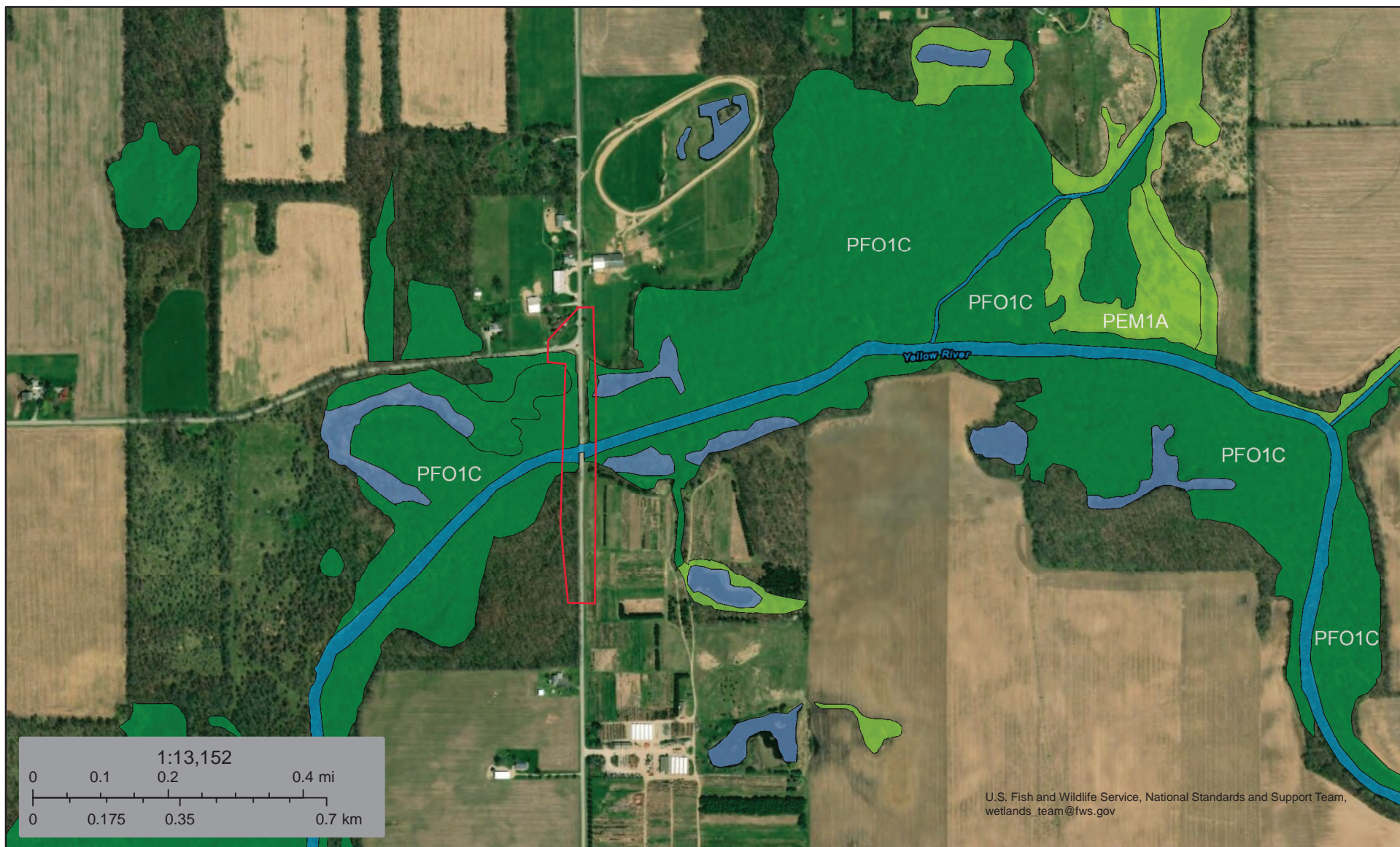
Marshall County Bridge #73 Project
Bridge Replacement Project
Created: 11/8/2018, SBeaupre

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Marshall Bridge 73 over Yellow River



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

June 21, 2018

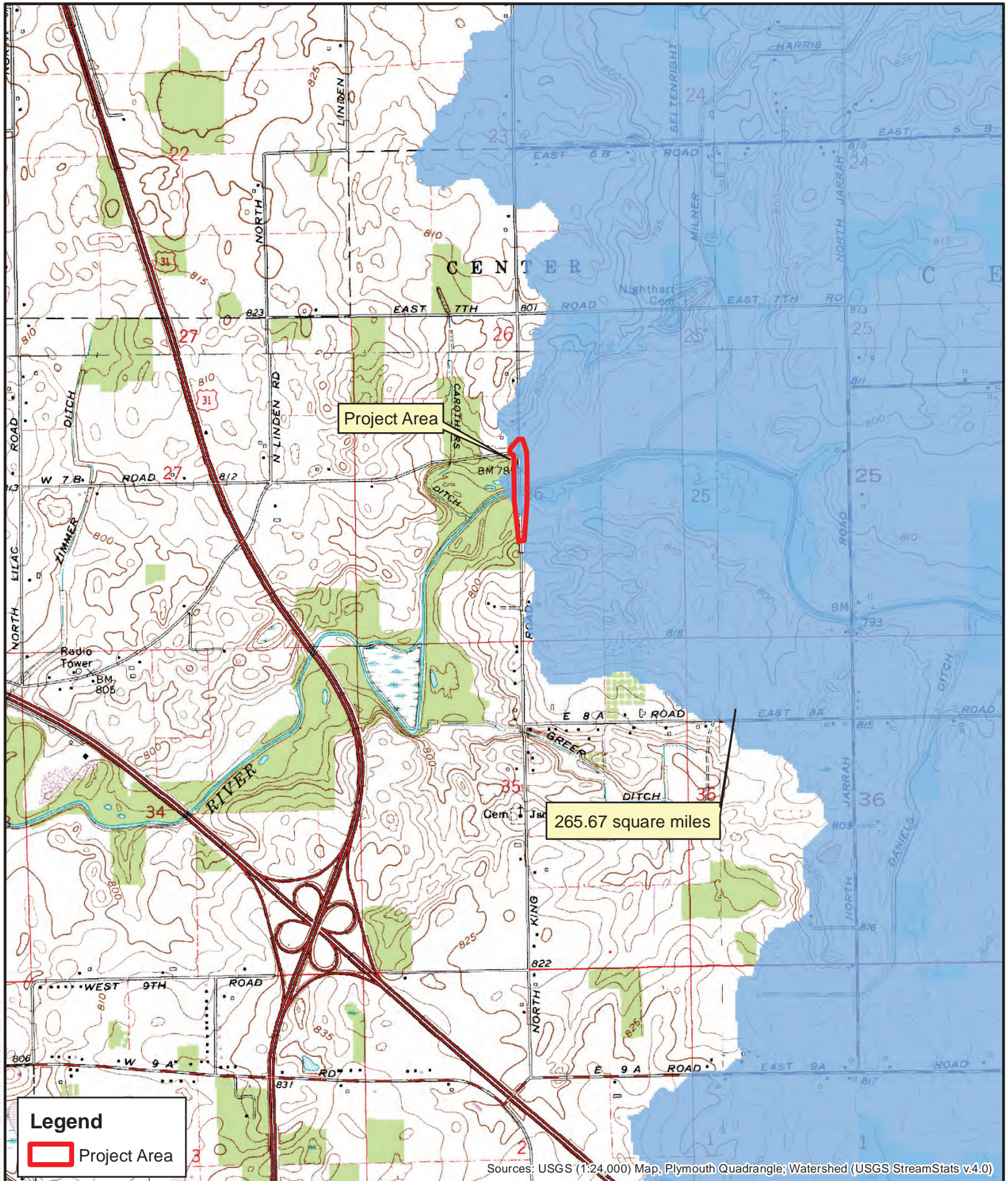
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- 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.



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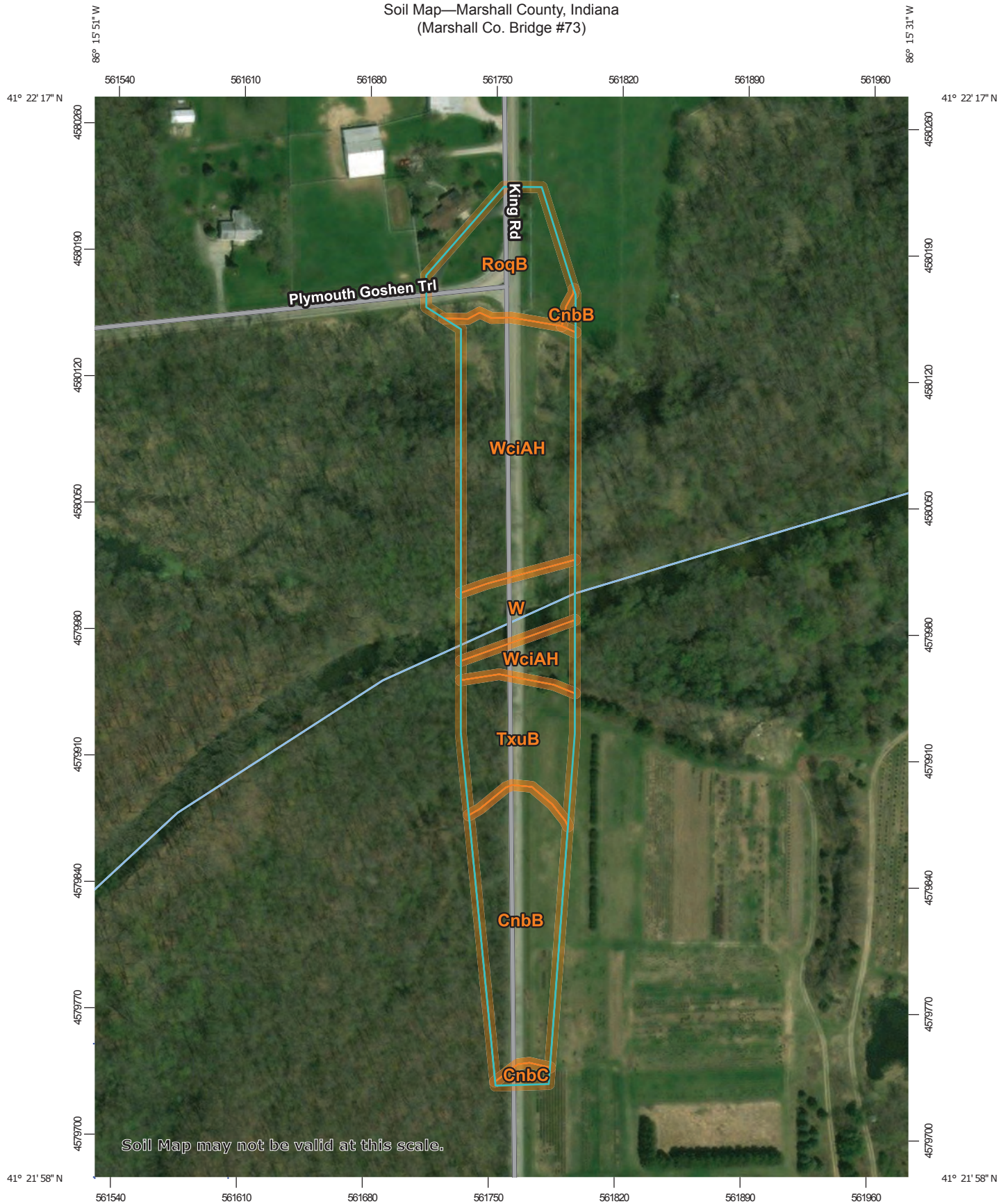
USGS Streamstats Map
 Plymouth Quad
 Des. No. 1600931
 Waters of the U.S. Report

0 1,000 2,000
 Feet

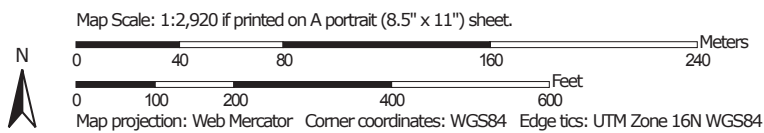
County: Marshall
 Township: Center
 State: Indiana

Marshall Co. Bridge #73
 Bridge Replacement
 Created: 11/4/2018, R. Hook

Soil Map—Marshall County, Indiana (Marshall Co. Bridge #73)



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

6/21/2018
Page 1 of 3

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

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

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: Marshall County, Indiana
Survey Area Data: Version 20, Oct 2, 2017

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

Date(s) aerial images were photographed: Jun 29, 2012—Feb 16, 2017

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
CnbB	Coloma sand, 2 to 5 percent slopes	1.7	23.8%
CnbC	Coloma sand, 5 to 10 percent slopes	0.1	1.0%
RoqB	Riddles-Metea complex, 1 to 5 percent slopes	1.1	15.5%
TxuB	Tyner loamy sand, 1 to 5 percent slopes	1.0	14.4%
W	Water	0.6	8.1%
WciAH	Waterford-Cohoctah loams, 0 to 2 percent slopes, frequently flooded, brief duration	2.6	37.1%
Totals for Area of Interest		7.0	100.0%

Report—Hydric Soil List - All Components

Hydric Soil List - All Components--IN099-Marshall County, Indiana					
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)
CnbB: Coloma sand, 2 to 5 percent slopes	Coloma	85-100	Outwash plains,moraines	No	—
	Tyner	0-10	Outwash plains	No	—
	Osolo	0-10	Outwash plains	No	—
	Bristol	0-10	Outwash plains	No	—
CnbC: Coloma sand, 5 to 10 percent slopes	Coloma	85-100	Outwash plains,moraines	No	—
	Bristol	0-15	Outwash plains	No	—
	Tyner	0-5	Outwash plains	No	—
	Osolo	0-5	Outwash plains	No	—
RoqB: Riddles-Metea complex, 1 to 5 percent slopes	Riddles	55	Till plains	No	—
	Metea	30	Till plains	No	—
	Williamstown	5	Moraines,till plains	No	—
	Oshtemo	5	Outwash plains,moraines	No	—
	Ormas	5	Outwash plains	No	—
TxuB: Tyner loamy sand, 1 to 5 percent slopes	Tyner	85	Outwash plains	No	—
	Bristol	5	Kames,outwash plains,outwash terraces	No	—
	Osolo	5	Outwash plains,outwash terraces	No	—
	Coloma	5	Outwash plains,moraines	No	—
W: Water	Water	100-100	—	No	—
WciAH: Waterford-Cohoctah loams, 0 to 2 percent slopes, frequently flooded, brief duration	Waterford	50	Flood plains	Yes	4
	Cohoctah	30	Flood plains	Yes	2
	Suman	10	Flood plains	Yes	2
	Ceresco	10	Flood plains	No	—

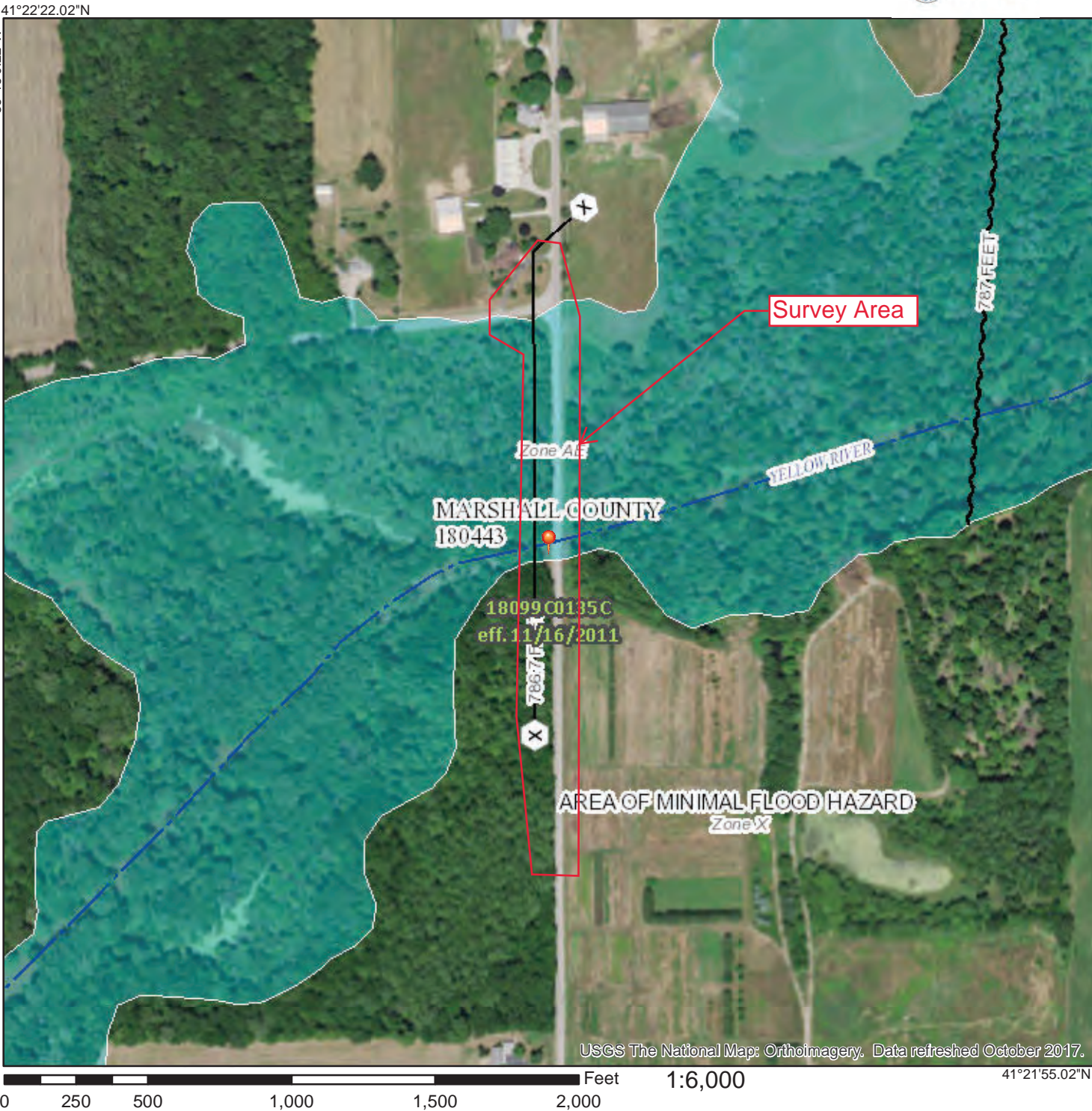
Data Source Information

Soil Survey Area: Marshall County, Indiana
 Survey Area Data: Version 20, Oct 2, 2017

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CnbB	Coloma sand, 2 to 5 percent slopes	0	1.7	23.8%
CnbC	Coloma sand, 5 to 10 percent slopes	0	0.1	1.0%
RoqB	Riddles-Metea complex, 1 to 5 percent slopes	0	1.1	15.5%
TxuB	Tyner loamy sand, 1 to 5 percent slopes	0	1.0	14.4%
W	Water	0	0.6	8.1%
WciAH	Waterford-Cohoctah loams, 0 to 2 percent slopes, frequently flooded, brief duration	90	2.6	37.1%
Totals for Area of Interest			7.0	100.0%

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	<div></div>	Without Base Flood Elevation (BFE) Zone A, V, A99
	<div></div>	With BFE or Depth Zone AE, AO, AH, VE, AR
	<div></div>	Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD	<div></div>	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	<div></div>	Future Conditions 1% Annual Chance Flood Hazard Zone X
	<div></div>	Area with Reduced Flood Risk due to Levee. See Notes. Zone X
	<div></div>	Area with Flood Risk due to Levee Zone D

OTHER AREAS	<div></div>	Area of Minimal Flood Hazard Zone X
	<div></div>	Effective LOMRs
GENERAL STRUCTURES	<div></div>	Area of Undetermined Flood Hazard Zone D
	<div></div>	

OTHER AREAS	<div></div>	Channel, Culvert, or Storm Sewer
	<div></div>	Levee, Dike, or Floodwall

GENERAL STRUCTURES	<div></div>	
	<div></div>	
	<div></div>	
	<div></div>	
	<div></div>	
	<div></div>	

OTHER FEATURES	<div></div>	Cross Sections with 1% Annual Chance Water Surface Elevation
	<div></div>	Coastal Transect
	<div></div>	Base Flood Elevation Line (BFE)
	<div></div>	Limit of Study
	<div></div>	Jurisdiction Boundary
	<div></div>	Coastal Transect Baseline

OTHER FEATURES	<div></div>	Profile Baseline
	<div></div>	Hydrographic Feature
	<div></div>	

MAP PANELS	<div></div>	Digital Data Available
	<div></div>	No Digital Data Available
	<div></div>	Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **10/28/2018 at 12:09:35 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Marshall Co. Bridge #73 City/County: Plymouth/Marshall County Sampling Date: 09/25/2018
 Applicant/Owner: Marshall County Highway Department State: IN Sampling Point: DP 1
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 26, Township 34 N, Range 2 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): none
 Slope (%): 0-1 Lat: 41.368834 Long: -86.2612172 Datum: NAD 83
 Soil Map Unit Name: WciAH NWI classification: _____

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

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: This data point was taken in the SE quadrant of the project area. Soils are absent and therefore this data point is not within a wetland. This is representative of the entire SE quadrant floodplain bank.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: 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>100.0%</u> (A/B)
1. <u>Acer saccharinum</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>30</u> =Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>127</u> x 2 = <u>254</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>127</u> (A) <u>254</u> (B) Prevalence Index = B/A = <u>2.00</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>_____</u> =Total Cover				
Herb Stratum (Plot size: <u>5 feet</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>_____</u> 3 - Prevalence Index is ≤3.0 ¹ <u>_____</u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Persicaria maculosa</u>	<u>3</u>	<u>No</u>	<u>FACW</u>	
3. <u>Urtica dioica</u>	<u>3</u>	<u>No</u>	<u>FACW</u>	
4. <u>Aster sp.</u>	<u>3</u>	<u>No</u>	_____	
5. <u>Rudbeckia laciniata</u>	<u>1</u>	<u>No</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> =Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>_____</u> =Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: DP 1

[illegible]

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"/> 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 checked="" 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 checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Marshall Co. Bridge #73 City/County: Plymouth/Marshall County Sampling Date: 09/25/2018
 Applicant/Owner: Marshall County Highway Department State: IN Sampling Point: DP 2
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 26, Township 34 N, Range 2 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): none
 Slope (%): 0-1 Lat: 41.370404 Long: -86.261259 Datum: NAD 83
 Soil Map Unit Name: WciAH NWI classification: PFO1C and PUBF

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 X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: This data point is taken in a low spot adjacent to fill material for King Road. The wetland merges into the floodplain for the Yellow River muck soils are only present in this area.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		_____ =Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		_____ =Total Cover		
Herb Stratum	(Plot size: <u>5 feet</u>)			
1.	<u>Phalaris arundinacea</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Scirpus atrovirens</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>
3.	<u>Persicaria hydropiper</u>	<u>15</u>	<u>No</u>	<u>OBL</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>100</u> =Total Cover		
Woody Vine Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		_____ =Total Cover		

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>55</u>	x 1 = <u>55</u>
FACW species <u>45</u>	x 2 = <u>90</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>100</u> (A)	<u>145</u> (B)
Prevalence Index = B/A = <u>1.45</u>	

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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 X No _____

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

SOIL

Sampling Point: DP 2

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	N 2.5/	100					Muck	
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"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Dark Surface (S7)			<input type="checkbox"/> Very Shallow Dark Surface (F22)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Other (Explain in Remarks)		
<input checked="" type="checkbox"/> 2 cm Muck (A10)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)					
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Redox Depressions (F8)					
Restrictive Layer (if observed):								
Type: _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Depth (inches): _____								
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"/> 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 checked="" 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 checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <input type="text"/> 1 (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Saturation occurred just below the surface.			

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Marshall Co. Bridge #73 City/County: Plymouth/Marshall County Sampling Date: 09/25/2018
 Applicant/Owner: Marshall County Highway Department State: IN Sampling Point: DP 3
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 26, Township 34 N, Range 2 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): none
 Slope (%): 0-1 Lat: 41.370373 Long: -86.261355 Datum: NAD 83
 Soil Map Unit Name: WciAH NWI classification: n/a

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 X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks: This data point is taken on the fill area between DP 2 and King Road.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Herb Stratum	(Plot size: <u>5 feet</u>)			
1.	<u>Plantago major</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>
2.	<u>Poa pratensis</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>
3.	<u>Allium schoenoprasum</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>
4.	<u>Daucus carota</u>	<u>10</u>	<u>No</u>	<u>UPL</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>100</u>	=Total Cover	
Woody Vine Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

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>90</u>	x 3 = <u>270</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>100</u> (A)	<u>320</u> (B)
Prevalence Index = B/A = <u>3.20</u>	

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

X 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 X No _____

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

SOIL

Sampling Point: DP 3

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		
0-4	10YR 3/2	100					Sandy	
4-8	2.5Y 6/6	100					Loamy/Clayey	
8-13	10YR 3/2	100					Loamy/Clayey	shovel refusal due to gravel

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 Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<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"/> Dark Surface (S7)	
<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)	

³Indicators 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 <u>X</u>
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"/> 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): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Saturation occurred just below the surface.	

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Marshall Co. Bridge #73 City/County: Plymouth/Marshall County Sampling Date: 09/25/2018
 Applicant/Owner: Marshall County Highway Department State: IN Sampling Point: DP 4
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 26, Township 34 N, Range 2 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): none
 Slope (%): 0-1 Lat: 41.3688179 Long: -86.261749 Datum: NAD 83
 Soil Map Unit Name: TxuB NWI classification: n/a

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 X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology X naturally problematic? (If needed, explain any answers in Remarks.)

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

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

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Herb Stratum	(Plot size: <u>5 foot</u>)			
1.	<u>Leersia oryzoides</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Persicaria longiseta</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>
3.	<u>Pilea pumila</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>
4.	<u>Echinochloa crus-galli</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
5.	<u>Persicaria hydropiper</u>	<u>15</u>	<u>No</u>	<u>OBL</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>120</u>	=Total Cover	
Woody Vine Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		=Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>45</u>	x 1 = <u>45</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>120</u> (A)	<u>225</u> (B)
Prevalence Index = B/A = <u>1.88</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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 X No _____

SOIL

Sampling Point: DP 4

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		
0-3	10YR 3/1	100					Sandy	
3-9	10YR 3/1	95	5YR 6/3	2	C	PL	Loamy/Clayey	Prominent redox concentrations
	10YR 6/6	3						
9-18	10YR 6/6	70					Sandy	
	10YR 3/1	30						

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 Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)
	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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Sandy/loamy soils along the floodplain with a clear change in color at 9 inches

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"/> 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 checked="" 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 checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Marshall Co. Bridge #73 City/County: Plymouth/Marshall County Sampling Date: 09/25/2018
 Applicant/Owner: Marshall County Highway Department State: IN Sampling Point: DP 5
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 26, Township 34 N, Range 2 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): none
 Slope (%): 0-1 Lat: 41.3686903 Long: -86.2617535 Datum: NAD 83
 Soil Map Unit Name: TxuB NWI classification: N/A

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 X significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology X 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 <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Gleditsia triacanthos</u>		<u>10</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Ulmus rubra</u>		<u>5</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Juglans nigra</u>		<u>5</u>	<u>Yes</u>	<u>FACU</u>
4. <u>Fraxinus pennsylvanica</u>		<u>2</u>	<u>No</u>	<u>FACW</u>
5. _____				
		<u>22</u>	=Total Cover	
Sapling/Shrub Stratum	(Plot size: _____)			
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
			=Total Cover	
Herb Stratum	(Plot size: <u>5 feet</u>)			
1. <u>Persicaria virginiana</u>		<u>20</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Phytolacca americana</u>		<u>10</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Hackelia virginiana</u>		<u>10</u>	<u>Yes</u>	<u>FACU</u>
4. <u>Persicaria maculosa</u>		<u>10</u>	<u>Yes</u>	<u>FACW</u>
5. <u>Urtica dioica</u>		<u>5</u>	<u>No</u>	<u>FACW</u>
6. <u>Asarum canadense</u>		<u>5</u>	<u>No</u>	<u>FACU</u>
7. _____				
8. _____				
9. _____				
10. _____				
		<u>60</u>	=Total Cover	
Woody Vine Stratum	(Plot size: _____)			
1. _____				
2. _____				
			=Total Cover	
Remarks: (Include photo numbers here or on a separate sheet.) 40% bareground				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>17</u>	x 2 = <u>34</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>82</u> (A)	<u>269</u> (B)
Prevalence Index = B/A = <u>3.28</u>	

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0¹

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

___ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: DP 5

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		
0-6	10YR 3/1	100					Loamy/Clayey	
6-15	10YR 6/6	100					Sandy	shovel refusal due to tree roots

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 Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<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)	

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

Restrictive Layer (if observed): Type: _____ Roots _____ Depth (inches): _____ 15 _____	Hydric Soil Present? Yes _____ No <u>X</u>
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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"/> 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): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	--

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Marshall Co. Bridge #73 City/County: Plymouth/Marshall Co. Sampling Date: 10/2/2018
 Applicant/Owner: Marshall County Highway Department State: IN Sampling Point: DP 6
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 26, Township 34 N, Range 2 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): none
 Slope (%): 0-1 Lat: 41.37033 Long: -86.261748 Datum: NAD 83
 Soil Map Unit Name: WciAH NWI classification: PFO1/EM1C

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 <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Herb Stratum	(Plot size: <u>5 feet</u>)			
1.	<u>Phalaris arundinacea</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>100</u>	=Total Cover	
Woody Vine Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		=Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)				

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: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>100</u>	x 2 = <u>200</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>100</u> (A)	<u>200</u> (B)
Prevalence Index = B/A = <u>2.00</u>	

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 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 X No _____

SOIL

Sampling Point: DP 6

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		
0-5	10YR 3/2	92	5YR 4/6	8	C	PL/M	Loamy/Clayey	Prominent redox concentrations
5-21	N 3/	97	5YR 4/6	3	C	M	Loamy/Clayey	Prominent redox concentrations

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 Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> ? Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<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)	

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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"/> 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 checked="" 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 checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 17 Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): 14 (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Marshall Co. Bridge #73 City/County: Plymouth/Marshall Co. Sampling Date: 10/2/2018
 Applicant/Owner: Marshall County Highway Department State: IN Sampling Point: DP7
 Investigator(s): R. Hook/C. Kunkel Section, Township, Range: Section 26, Township 34 N, Range 2 E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): none
 Slope (%): 0-1 Lat: 41.3696523 Long: -86.261717 Datum: NAD 83
 Soil Map Unit Name: WciAH NWI classification: PFO1C

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 <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Juglans nigra</u>		<u>10</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Quercus bicolor</u>		<u>8</u>	<u>Yes</u>	<u>FACW</u>
3. <u>Prunus serotina</u>		<u>7</u>	<u>Yes</u>	<u>FACU</u>
4. _____				
5. _____				
		<u>25</u>	=Total Cover	
Sapling/Shrub Stratum	(Plot size: _____)			
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
			=Total Cover	
Herb Stratum	(Plot size: <u>5 feet</u>)			
1. <u>Pilea pumila</u>		<u>35</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Urtica dioica</u>		<u>35</u>	<u>Yes</u>	<u>FACW</u>
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
		<u>70</u>	=Total Cover	
Woody Vine Stratum	(Plot size: _____)			
1. _____				
2. _____				
			=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>78</u>	x 2 = <u>156</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>17</u>	x 4 = <u>68</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>224</u> (B)
Prevalence Index = B/A = <u>2.36</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

X 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 X No _____

Remarks: (Include photo numbers here or on a separate sheet.)
 30% bareground

SOIL

Sampling Point: DP7

[illegible]

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"/> 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 checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 11/1/18

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: R. Hook, Lochmueller Group, 3502 Woodview Trace, Indianapolis, 46268

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Federal Highway Administration and Marshall County, with oversight by the Indiana Department of Transportation (INDOT), propose to proceed with a bridge replacement project in north central Marshall County, Indiana. The proposed project will replace the existing bridge identified as Bridge #50-00073 which carries King Road over Yellow River. The existing structure is a four span bridge built in 1966 and is 152 feet long with a 24.3 foot clear roadway width. The construction of the new structure will include embankment widening, benching the sideslopes, the removal of an existing private drive, and the removal of an existing overflow pipe. The new structure will be longer, taller, and slightly wider than the existing structure. Excavation within the Yellow River will occur in order to install the substructure units.

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

State: **IN** County/parish/borough: **Marshall** City:

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

Lat.: **41.369021** Long.: **-86.261468**

Universal Transverse Mercator:

Name of nearest waterbody: **Yellow River**

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

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): **September 25 and 26, 2018 and October 2, 2018**

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)
Yellow River	41.369016°	-86.261476°	360 feet (0.7 acre)	non-wetland	Section 404
Wetland 1	41.370404°	-86.261259° +	0.48 acre	wetland	Section 404 ₊
Wetland 2	41.3688179°	-86.261749° +	0.11 acre	wetland	Section 404
Wetland 3	41.37033°	-86.261748° +	0.54 acre	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:

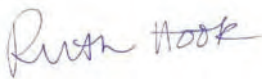
SUPPORTING DATA. Data reviewed for PJD (check all that apply)

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: aerial maps, topo, water resources, streamstats.
- ☐ 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: HYDROGRAPHY_HIGHRES_FLOWLINE_NHD_USGS.SHP.
☒ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Plymouth 1:24,000.
- ☒ Natural Resources Conservation Service Soil Survey. Citation: Web soil survey, 2018.
- ☒ National wetlands inventory map(s). Cite name: USFWS web service, 2018.
- ☐ State/local wetland inventory map(s): _____.
- ☒ FEMA/FIRM maps: 18099C0135C, effective 11/16/2011.
- ☒ 100-year Floodplain Elevation is: 787' (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): 2015 Aerial Photography.
or ☒ Other (Name & Date): Ground photos taken: September 25 and 26, 2018 and October 2, 2018.
- ☐ Previous determination(s). File no. and date of response letter: _____.
- ☐ Other information (please specify): _____.

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

Signature and date of
Regulatory staff member
completing PJD

 11/9/2018

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.

Categorical Exclusion

Appendix G

Public Involvement



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Land & Aerial Survey Office
Division of Materials & Tests Building
120 South Shortridge Road
Indianapolis, Indiana 46219-6705

PHONE: (317) 610-7251
FAX: (317) 356-9351

Michael R. Pence, Governor
Karl B. Browning, Commissioner

January 17, 2018

Reese Murland Gale & Shirley A
10500 Plymouth-Goshen Tr
Plymouth, IN 46563

Example Notice
of Survey

NOTICE OF SURVEY

Dear Property Owner:

USI Consultants, under contract with The Indiana Department of Transportation (INDOT) will perform a survey for the proposed **Bridge Replacement** project on **KING ROAD Bridge over Yellow River**, Des No. **1600931**, in **Marshall** County, Indiana. A portion of this survey work may be performed on your property in order to provide design engineers information for project design. The survey work will include mapping the location of features such as trees, buildings, fences, drives, ground elevations, etc. The survey is needed for the proper planning and design of this highway project.

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

Indiana Code 8-23-7-26 allows USI Consultants, as the authorized employees of INDOT, *Right of Entry* to the project site (including private property) upon proper notification. A copy of a Notice of Survey discussion sheet, as found on INDOT's website (<http://www.in.gov/indot/2888.htm>), is attached to this letter. Pursuant to Indiana Code 8-23-7-27, this letter serves as written notification that we will be performing the above noted survey in the vicinity of your property after **January 22, 2018**.

USI employees will show you their identification, if you are available, before coming onto your property.

If you own but are not the tenant of this property (i.e. rental, sharecrop), please inform us so that we may also contact the actual tenant of the property prior to commencement of our work. If you have any questions or concerns regarding our proposed survey work or schedule, please contact the USI Survey Manager. This contact information is as follows:

Mark Schepers, P.S.
USI Consultants, Inc.
8415 E 56th St.
Indianapolis, IN 46216
(317) 544-4996

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



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Land & Aerial Survey Office
Division of Materials & Tests Building
120 South Shortridge Road
Indianapolis, Indiana 46219-6705

PHONE: (317) 610-7251
FAX: (317) 356-9351

Michael R. Pence, Governor
Karl B. Browning, Commissioner

Under Indiana Code 8-23-7-28, you have a right to compensation for any damage that occurs to your land or water as a result of the entry or work performed during the entry. To obtain such compensation, you should contact the [Laporte Office](#) District Real Estate Manager; contact information is below. The District Real Estate Manager can provide you with a form to request compensation for damages. Once you fill out this form, you can return it to the District Real Estate Manager for consideration. If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-28 provides the following:

The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

If you have questions regarding the rights and procedures outlined in this letter, please contact the [Laporte](#) Real Estate Manager. This contact information is as follows:

John Krueckeberg
315 E. Boyd Blvd.
LaPorte County, LaPorte IN 46350
219-325-7520

Thank you in advance for your cooperation in this matter.

Sincerely,

Mark Schepers, P.S.
Survey Operations Manager

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



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216

Michael R. Pence, Governor

Brandye Hendrickson, Commissioner

Indiana Department of Transportation Notice of Entry for Survey or Investigation Indiana Department of Transportation

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

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

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

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

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

www.in.gov/dot/
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Legal Notice of Public Information Meeting

Marshall County will hold a Public Information Meeting on Wednesday, February 27th, 2019 regarding the proposed replacement of the King Road Bridge No. 73 over the Yellow River (Des. No. 1600931). The meeting will begin promptly at 6:00 PM at the Marshall County Highway Department Conference Room, which is located at 9675 King Road, Plymouth, Indiana.

The format of the meeting will feature a formal presentation beginning at 6:00 PM with an informal open house session starting immediately following the presentation and continuing until 7:00 PM. The open house session will provide the public an opportunity to view project displays and to interact with the project team.

The purpose of this public information meeting is to obtain the public's views regarding the purpose and need for the new bridge and roadway, and the alternatives evaluated as part of the ongoing design process. The public will be afforded the opportunity to provide comments on the information presented at the meeting for a period of 14- days following the meeting.

The proposed project is located in Center Township of Marshall County. The proposed project is on King Road over the Yellow River. The purpose of the project is to replace the bridge over the Yellow River. The need for the project is driven by the current condition of the existing bridge and substandard safety concerns.

The typical section of the new bridge and roadway includes two travel lanes (one in each direction), widened shoulders and guardrail.

Additional permanent right-of-way will be required for the construction of the proposed project; however exact quantities are not known at this time. As design of the roadway progresses, the right-of-way limits will be refined.

This notice is published in compliance with Title 23, Code of Federal Regulations, Section 771.11(h) entitled "Early Coordination, Public Involvement and Project Development" and the INDOT Public Involvement Policies and Procedures Manual, approved by the Federal Highway Administration, US Department of Transportation, on August 16th, 2012.

Please direct any questions or comments concerning this project to Brandon Arnold, USI Consultants, Inc., 824 Lincolnway, Loft 3A, LaPorte, Indiana 46350 or by email at barnold@usiconsultants.com. Comments on the proposed project will be accepted for 14 days after the Public Information Meeting. All comments should be post marked by March 13, 2019. All comments received within the designated timeframe will be included in the project record.

In accordance with the "Americans with Disabilities Act", if you have a disability for which Marshall County would need to provide accommodations pertaining to the accessibility to program documents and participation at the public meeting or if you are a persons of Limited English Proficiency (LEP) requiring assistance pertaining to accessing project documents and participating at the public meeting venue, contact Brandon Arnold, USI Consultants, Inc., using the contact information above.

USI CONSULTANTS

Marshall County, Indiana

To: PILOT NEWS

Plymouth, Indiana

PUBLISHER'S CLAIM

LINE COUNT

Display Matter (Must not exceed two actual lines, neither of which shall
total more than four solid lines of the type in which the body of the
advertisement is set) number of equivalent lines

Head -- number of lines	_____	
Body -- number of lines	_____	109
Tail -- number of lines	_____	
Total number of lines in notice	_____	109

Column Width _____ Inch Length _____ Total number of column inches _____

COMPUTATION OF CHARGES

29 lines, 1 column(s) wide equals equivalent lines at a rate of	\$ 50.00
(or) _____ cents per line	\$ _____
_____ total column inches at _____ per column inch	\$ _____
Additional charges for notices containing rule or tabular work (50 per cent of above amount)	\$ _____
Charge for extra proofs of publication (\$2.00 for each proof in excess of two)	\$ _____
TOTAL AMOUNT OF CLAIM	\$ 50.00

DATA FOR COMPUTING COST

Width of single column in picas	7
Size of type	8

Number of insertions 1

Plan Commission

Pursuant to the provisions and penalties of IC 5-11-10-1, I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

I also certify that the printed matter attached hereto is a true copy, of the same column width and type size, which was duly published in said paper _____ time(s), the dates of publication being as follows:

2/20/19

Z

Additionally, the statement checked below is true and correct:

Newspaper does not have a Web site.

☒ Newspaper has a Web site and this public notice was posted on the same day as it was published in the newspaper.

Newspaper has a Web site, but due to technical problem or error, public notice was posted on

Newspaper has a Web site but refuses to post the public notice.

Date: FEBRUARY 20, 2019

Signature

Bethany R. Shykal

Classified Marketplace

PILOT NEWS, CULVER CITIZEN, HEARTLAND NEWS

THE LEADER OF STARKE COUNTY, SHOPPER, REVIEW

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 Shopper - Tuesdays • 4PM EST
 Weeklies - Fridays • 12PM EST

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www.thepilotnews.com



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 Mon-Fri 8:00AM-5:00PM

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Fax: 574.936.7491



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116 Legals

FINDING AND ORDER OF THE MARSHALL COUNTY DRAINAGE BOARD IN RE: INCREASE OF PERIODIC MAINTENANCE OF THE ROBERT MARTIN DITCH

The Marshall County Drainage Board, pursuant to notice having been given in compliance with I.C. 36-9-27-42, conducted a public hearing on February 18, 2019 on the Robert Martin Ditch. Evidence having been heard, the Board finds and orders that benefits exceed costs, and the annual maintenance assessment shall be increased to \$5.00 per acre, for all lands benefited therein, with a \$25.00 minimum. Dated this 18th day of February, 2019.
 MARSHALL COUNTY DRAINAGE BOARD
 Michael Delp, President; Stanley Klotz, Vice-President; Kevin

116 Legals

Overmyer, Board Member; David Shultz, Board Member
 Attest: Barbara Neidlinger, Drainage Board Secretary
 February 20, 2019 PN296447 hspajp

NOTICE OF ADMINISTRATION

IN THE MATTER OF THE ESTATE OF COLLENE WALKER, Deceased.
 In the Marshall Circuit Court Cause No. 19-000014
 Notice is hereby given that Kenneth H. Lukenbill was on the 8 day of February 2019, appointed personal representative of the estate of Colleen Walker, deceased, who died on the 14th day of January 2019. All persons who have claims against this estate, whether or not now due, must file the claim in the office of the clerk of this Court within three (3) months from the date of the first publication of this notice, or within

116 Legals

nine (9) months after the decedent's death, whichever is earlier, or the claims will be forever barred.
 Dated at Plymouth, Indiana, this 8 day of February, 2019.
 Deborah VanDeMark
 Clerk of Court

LUKENBILL & LUKENBILL, LLP
 By Kenneth H. Lukenbill
 501 East Jefferson Street,
 P.O. Box 1508
 Plymouth, Indiana 46563
 Telephone 574-936-2007
 Attorneys for Estate
 February 13, 20, 2019 PN296199 hspajp

NOTICE TO BIDDERS REQUEST FOR PROPOSALS (RFP) ACTIVE TRANSPORTATION COUNT EQUIPMENT

Notice is hereby given that sealed proposals will be received by the Michiana Area Council of Governments (MACOG) in the office located at 227 West Jefferson Blvd., 1120

116 Legals

CountyCity Building, South Bend, Indiana 46601, until 4:00 pm (ET) March 20, 2019, for the procurement and services related to automated counting systems for active transportation (pedestrian and bicycle). Copies of the RFP may be obtained at www.macog.com/procurement_opportunities.html, in the MACOG office between 9:00 AM and 4:00 PM (ET) Monday through Friday, by calling 574-287-1829, or by email macogrfp@macog.com beginning February 15, 2019. A pre-bid conference may be held on March 8, 2019, in the MACOG Conference Room, if requested in writing before 4:30 PM (ET) on March 1, 2019. The program is funded in part by the U.S. Department of Transportation. Please submit all sealed bids to the MACOG office, Attention: Active Transportation Counting Equipment, by 4:00 PM (ET), March 20, 2019.
 February 19, 20, 2019 PN296407 hspajp

116 Legals

Notice of Public Hearing
Town of Bremen, Indiana
 Proposed Amendments to Miscellaneous Charges The Town of Bremen, Indiana, Town Council will hold a public hearing at 4:45p.m. on February 25, 2019 at the Town Hall, 111 S. Center Street, Bremen, Indiana. The Clerk-Treasurer, Janet Anglemeyer, will present the proposed revision to Chapter 100 regarding Sewage Rates and Charges, Chapter 104 regarding the Town Water System, Chapter 105 regarding the Town Electric System and Chapter 107 regarding the Town Storm Water System of the Bremen Town Code. At this hearing, there will be an opportunity for questions and comments from the public. If special assistance is required at the meeting, please contact Janet M. Anglemeyer, Clerk-Treasurer, phone 574-546-2471. Copies of the Ordinance are available for public viewing at the Town Hall.
 APPENDIX A
SCHEDULE OF MISCELLANEOUS CHARGES
 Return Check Charge \$27.00 per check.
 Reconnect/Disconnect Charge \$75.00 per event.
 Late Payment Charge 10% of total bill
 Secondary Underground Service \$3.00 per running ft., w/ 80 ft minimum
 February 20, 2019 PN296413 hspajp

116 Legals

the 6 day of December 2018, Robert Eugene Suseland was appointed Personal Representative of The Estate of **Juanita Marie Suseland**, deceased, who died on the 8th day of November, 2018. All persons who have claims against the estate, whether or not now due, must file the claim in the office of the Clerk of the Court within three (3) months from the date of the first publication of this notice, or within nine (9) months after the decedent's death, whichever is earlier, or the claims will be forever barred.
 DATED at Plymouth, Indiana 7 day of December, 2018.
 Deborah VanDeMark
 Clerk of the Marshall Superior Court No. 1
 For Marshall County, Indiana
 Tom A. Black #3843-50
 Attorney for Estate
 515 N. Walnut Street
 Plymouth, Indiana 46563
 Telephone (574) 936-5848
 February 20, 27, 2019 PN296451 hspajp

STATE OF INDIANA
 COUNTY OF MARSHALL
 MARSHALL SUPERIOR COURT
 2018 CALENDAR TERM
 50001-1807 EU-000041
 IN RE: THE ESTATE OF WILLARD WHITESSELL JR.
NOTICE OF UNSUPERVISED ADMINISTRATION (for Publication)
 Notice is hereby given that Ronald L. Burch was on the July 11, 2018, appointed Personal Representative of the estate of Willard Whitesell Jr., deceased, who died 2018-05-14. The Personal Representative is authorized to administer the estate without court supervision. All persons who have claims against this estate, whether or not now due, must file the claim in the office of the clerk of this Court within three (3) months from the date of the first publication of this notice, or within nine (9) months after the decedent's death, whichever is earlier, or the claims will be forever barred.
 Dated at Plymouth, Indiana, July 11, 2018.
 Deborah VanDeMark
 Clerk

STEVENS, TRAVIS & FORTIN
 By David Fortin
 119 West Garo Street
 P. O. Box 517
 Plymouth, Indiana 46563
 Telephone 574-936-4041
 Attorney for Estate
 February 13, 20, 2019 PN296198 hspajp

Legal Notice of Public Information Meeting

Marshall County will hold a Public Information Meeting on Wednesday, February 27th, 2019 regarding the proposed replacement of the King Road Bridge No. 73 over the Yellow River (Des. No. 1600931). The meeting will begin promptly at 6:00 PM at the Marshall County Highway Department Conference Room, which is located at 9675 King Road, Plymouth, Indiana. The format of the meeting will feature a formal presentation beginning at 6:00 PM with an informal open house session starting immediately following the presentation and continuing until 7:00 PM. The open house session will provide the public an opportunity to view project displays and to interact with the project team. The purpose of this public information meeting is to obtain the public's views regarding the purpose and need for the new bridge and roadway, and the alternatives evaluated as part of

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116 Legals

Argos Civil Town, Marshall County, Indiana Cash & Investments Combined Statement - 2018

	Local Fund Number	Local Fund Name	Beg Cash & Inv Bal Jan 1, 2018	Receipts	Disbursements	End Cash & Inv Bal Dec 31, 2018
Government Activities	0	CASH CHANGE	\$175.00	\$0.00	\$0.00	\$175.00
	101	GENERAL	\$842,812.37	\$1,305,902.21	\$1,168,760.57	\$979,954.01
	104	INSURANCE CLAIMS	\$6,831.68	\$10,283.00	\$13,663.36	\$3,451.32
	105	FIRE BILLING	\$6,255.67	\$3,123.00	\$1,490.00	\$7,888.67
	108	CONCESSIONS (PARK)	\$5,645.95	\$1,782.75	\$655.24	\$6,773.46
	109	TIF DISTRICT	\$159,003.54	\$20,023.23	\$8,168.00	\$170,855.77
	201	PARK DONATION	\$69.18	\$0.00	\$0.00	\$69.18
	202	MOTOR VEHICLE HIGHWAY	\$402,175.29	\$82,501.61	\$55,379.92	\$429,296.92
	203	LOCAL ROAD AND STREET	\$64,448.15	\$13,671.25	\$1,374.11	\$76,745.29
	204	PARKS AND RECREATION	\$26,770.45	\$143,583.86	\$118,632.59	\$51,721.72
	205	CUMULATIVE CAPL LMPRV CIGARETTE TAX	\$171,948.91	\$6,414.74	\$0.00	\$178,363.65
	207	PARK GRANT FUND	\$0.00	\$4,600.00	\$3,000.00	\$1,600.00
	209	RAINY DAY	\$191,792.05	\$3,195.30	\$0.00	\$194,987.35
	257	LOIT	\$48,160.88	\$0.00	\$0.00	\$48,160.88
	301	CEMETERY OPERATING	\$30,029.45	\$16,662.77	\$12,899.68	\$33,992.54
	302	CEMETERY PERPETUAL CARA	\$57,345.18	\$13,490.00	\$11,800.00	\$59,035.18
	303	AMBULANCE/EMS NON REVERTING	\$199,560.03	\$110,937.95	\$77,559.14	\$232,938.84
	304	CEMETERY FOUNDATIONS	\$12,499.50	\$4,500.00	\$0.00	\$16,999.50
	305	AMBULANCE DONATION	\$17,301.14	\$325.00	\$0.00	\$17,626.14
	306	LAW ENFORCEMENT CONTINUING ED	\$8,241.68	\$2,092.64	\$2,258.55	\$8,074.77
ELECTRIC	307	CUMULATIVE CAPITAL DEVELOPMENT	\$106,892.46	\$26,513.33	\$9,675.78	\$123,730.01
	308	POLICE FUND	\$14,488.64	\$18,918.21	\$5,093.48	\$28,311.37
	506	STORM SEWER NONREVERTING (CAP EXP)	\$146,346.81	\$25,067.66	\$19,935.46	\$151,479.01
	701	PAVROLL	\$9,935.98	\$291,949.70	\$292,221.39	\$9,664.29
	601	ELECTRIC UTILITY-OPERATING	\$322,682.72	\$3,240,214.43	\$48,163.54	\$366,120.39
	602	ELECTRIC UTILITY-OTHER #1	\$811,143.02	\$133,438.92	\$54,471.07	\$890,110.87
	603	ELECTRIC UTILITY-DEPREE/IMPROVE	\$2,083,632.43	\$97,660.04	\$269,396.22	\$1,911,896.25
	604	ELECTRIC UTILITY-CUSTOMER DEPOSIT	\$32,250.00	\$10,085.00	\$7,630.02	\$34,704.98
	501	WASTEWATER UTILITY-OPERATING	\$321,834.81	\$398,301.39	\$408,782.25	\$311,353.95
	503	WASTEWATER UTILITY-DEPREE/IMPROVE	\$62,846.00	\$0.00	\$11,421.87	\$51,424.13
WATER	508	STORM WATER	\$186,378.76	\$31,281.03	\$48,163.54	\$119,497.27
	401	WATER UTILITY-OPERATING	\$155,651.17	\$465,313.19	\$493,251.86	\$127,712.50
	403	WATER UTILITY-DEPRECIATION/IMPROVE	\$21,216.21	\$25,000.00	\$25,000.00	\$21,216.21
	404	WATER UTILITY-CUSTOMER DEPOSIT	\$16,043.00	\$4,775.00	\$3,670.00	\$17,148.00
		TOTAL ALL FUNDS	\$6,992,409.13	\$6,519,804.21	\$6,298,931.92	\$7,213,281.42

HINTS FROM HELOISE

A terrific vegetable-beef soup

Dear Heloise: My mother-in-law made a terrific VEGETABLE-BEEF SOUP, which she said was from a recipe found in one of your pamphlets. Could you reprint that soup recipe for me? -- Charlotte S., Dine Box, Texas

Charlotte, this was one of my mother's favorite recipes. You'll need:

10 1/2 ounces unsalted chicken broth
1/2 cup water
2 cups frozen mixed vegetables for soup
16-ounce can of tomatoes
1 cup beef, cooked and diced
1 teaspoon thyme leaves, crushed
Dash of pepper
1/4 teaspoon salt
1 bay leaf
2 ounces (about 1 1/4 cups) narrow-width noodles, uncooked
Heat broth and water. Add vegetables, meat and seasonings. Bring to a boil, reduce heat and boil gently, uncovered, for 15 minutes. Add noodles; cook until noodles are tender, about 10 minutes. Remove bay leaf before serving. Makes about four 1-cup servings. If you really enjoy a tasty, hot bowl of soup on a chilly day, you'll love all the recipes for soup I have in my pamphlet Heloise's Spectacular Soups. To order a copy, send \$5, along with a stamped (70 cents), self-addressed, long envelope, to: Heloise/Soups, P.O. Box 795001, San Antonio, TX 78279-5001. Or you can order it online at www.Heloise.com. FYI: When adding noodles in a soup, cook them until they are firm or "al dente." Drain and add to the soup. -- Heloise

ONION SALT HARDENS

Dear Heloise: I have a problem: I bought a jar of onion salt, used it a few times and then it hardened. How do I avoid this situation? Your column appears in the Antelope Valley (Calif.) Press, and I read it faithfully! -- Christine F., Lancaster, Calif.

Christine, the next time you buy onion salt or garlic powder, consider placing a few kernels of rice in the container, and make sure the cap is on very tight. This may eliminate the moisture and prevent clumping. -- Heloise

STOP THAT ROLL!

Dear Heloise: I was going to wrap a pie with plastic wrap when the roll suddenly came out of the box after I pulled, and it fell to the floor. I told my son that the plastic wrap and foil both come out when I try to use them. My son showed me two cutouts on the ends of the boxes. You push them in, and they hold the roll in the box while you unroll the product. I wonder how many of your readers are unaware of this one. I thought it might be worthwhile passing it on. -- Jim J., Girard, Pa.

GRANDMOTHER'S METHOD

Dear Heloise: I remember my grandmother's method of boiling eggs. She'd bring a large pot of water to a rolling boil and, with a slotted spoon, gently and slowly immerse eggs, one at a time. She'd boil the eggs for 15 minutes (for hard-boiled eggs), then remove them from the pan of hot water and place them in cold tap water. She never had a messy egg. -- Bettie B. in Houston

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170 Help Wanted
EXPERIENCED COOK/PIZZA MAKER wanted. Apply in person: Tuesday, Wednesday or Thursday 11am-3pm (CST) at Bass Lake Pub, 2669 S CR 210, Knox.

YSC GEAR (Yoder's Sports Center): Hiring reliable, self-motivated, outgoing sales associate. Apply at 218 N Michigan St., downtown Plymouth.

200 Apartments for Rent

BREMEN, LAKE of the Woods, 142BR in quiet neighborhood. \$120-\$130/weekly. (574)208-5388 1-year lease.

Mallard Lake Apartments
Call for availability
• On Site management •
574-936-0004
pmandmndiana.com

NAPPANEE: 2BR-DUPLEX Water/sewer and trash included in rent. Deposit/\$400 then \$550/mo. No smoking/pets. 574-267-3460

205 Houses for Rent
3BR HOME on King Road. No pets. \$700 monthly. Please call, (574)935-9678

CULVER: 3-4BR/1.5BA, wood flooring, w/d hook-up in basement. \$750/monthly (574)842-4444 No pets.

210 Rooms for Rent
CHEEP RENT: Plymouth room mate wanted: text, (574)767-1141

300 Pets & Supplies

CKC COLLIE puppies. 1st shots and vet checked. Born 1/6/2019 3-females, 2-males. \$500/each. Call/text (574)780-1340

PIT BULL puppies 4 sale, \$250/each. Parent's on premises. Call (574) 207-5440

170 Help Wanted

CAREER OPPORTUNITY!

115 year-old hardwood manufacturing industry leader is seeking candidates for management trainee positions.
• College-degreed candidates are preferred.
• Competitive Salary
• Profit Sharing Plan and 401(k) Plan
• PTO and paid holidays
• Group medical, dental, and vision insurance offered

Mail Resume to:
Pike Lumber Company, Inc., Attn: Samantha Howard
PO Box 247 • Akron, IN 46910

SUDOKU

1				6		2
2		7			4	
5	8	4		9		
			3		1	
	5	1	4		6	
	8	3		7		
3						
9	6		5			

Fun By The Numbers
Like puzzles? Then you'll love sudoku. This mind-bending puzzle will have you hooked from the moment you square off, so sharpen your pencil and put your sudoku savvy to the test!

Here's How It Works:
Sudoku puzzles are formatted as a 9x9 grid, broken down into nine 3x3 boxes. To solve a sudoku, the numbers 1 through 9 must fill each row, column and box. Each number can appear only once in each row, column and box. You can figure out the order in which the numbers will appear by using the numeric clues already provided in the boxes. The more numbers you name, the easier it gets to solve the puzzle!

Level: Intermediate

325 Garage Sales
KNOX: 2180 N. 600 E. Feb. 21, 22, 22, 4P-7:30P & Feb. 23 & 24 10a-4:30p. **INSIDE MOVING SALE** from kitchen, decor, clothing to boat supplies. Most items 1 to \$15 firm.

330 Articles for Sale
GAITED SADDLE, \$700. Australian Out Back large coat, \$200. Woven Western/Indian rug, 7'10"x11", \$75. New heated outdoor A-frame cat shelter, \$50. Frigidaire up-right freezer, \$175. 12pc. China set, \$50. (708)271-3546

343 Medical Equip/Supplies
SILVER SPORT II wheelchair, chrome series, \$150. Easy Trader scooter, folds w/batteries/charger, \$800. Outdoor Titan 4-wheel mobility scooter w/battery. \$1,200. (574)360-5237

365 Firewood/Fuel
FIREWOOD: STORED inside. We've delivered good wood for years! (574)952-2691 or (574)952-9025

390 Wanted to Buy
\$\$\$ BUYING vehicles with titles. Paying top dollar for junk! (574)892-5097 \$\$\$

170 Help Wanted
Ice Rink Attendant: The Culver Academies seeks to hire an Ice Rink Attendant. Position is FULL TIME and BENEFIT ELIGIBLE. To view the details and apply for this position go to www.culver.org/jobs. EOE

116 Legals

the ongoing design process. The public will be afforded the opportunity to provide comments on the information presented at the meeting for a period of 14 days following the meeting.

The proposed project is located in Center Township of Marshall County. The proposed project is on King Road over the Yellow River. The purpose of the project is to replace the bridge over the Yellow River. The need for the project is driven by the current condition of the existing bridge and substantial safety concerns. The typical section of the new bridge and roadway includes two travel lanes (one in each direction), widened shoulders and guardrail. Additional permanent right-of-way will be required for the construction of the proposed project, however exact

116 Legals

quantities are not known at this time. As design of the roadway progresses, the right-of-way limits will be refined.

This notice is published in compliance with Title 23, Code of Federal Regulations, Section 771.11(h) entitled "Early Coordination, Public Involvement and Project Development" and the INDOT Public Involvement Policies and Procedures Manual, approved by the Federal Highway Administration, US Department of Transportation, on August 16th, 2012.

Please direct any questions or comments concerning this project to Brandon Arnold, USI Consultants, Inc., 824 Lincolnville, Loft 3A, LaPorte, Indiana 46350 or by email at brnold@usiconsultants.com. Comments on the proposed project will be accepted for 14 days after the Public Information Meeting. All comments

116 Legals

should be post marked by March 13, 2019. All comments received within the designated timeframe will be included in the project record. In accordance with the "Americans with Disabilities Act", if you have a disability for which a reasonable accommodation would need to be provided to participate in the program documents and participation at the public meeting or if you are a persons of Limited English Proficiency (LEP) requiring assistance pertaining to accessing project documents and participating at the public meeting venue, contact Brandon Arnold, USI Consultants, Inc., using the contact information above.

February 20, 2019 PR0266449 hspawp

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170 Help Wanted

CAREER OPPORTUNITY!

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• Competitive Salary
• Profit Sharing Plan and 401(k) Plan
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• Group medical, dental, and vision insurance offered

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Pike Lumber Company, Inc., Attn: Samantha Howard
PO Box 247 • Akron, IN 46910

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<p>498 Audio/Video</p> <p>TV ANTENNAS INSTALLED PROFESSIONALLY</p> <ul style="list-style-type: none"> • GET THE BEST RECEPTION POSSIBLE • OVER 10 YEARS EXPERIENCE <p>(574)721-9794</p>	<p>505 Carpets/Rugs</p> <p>Benefiel's Carpet Cleaning Services</p> <p>Residential & Commercial Carpet & Upholstery Professional Cleaning</p> <p>David Benefiel (574)780-2723 Owner • Operator • Plymouth</p>	<p>510 Cleaning Services</p> <p>CleanRite Cleaning Service</p> <p>Est. 2000 • BBB • Chamber Member</p> <p>Job Sites, Initial Cleans, Homes, Businesses, Apts & Windows</p> <p>(574)274-2424</p> <p>David Goffey-Vandegriffe - Owner</p> <p>www.cleaneartcleaning.com</p>	<p>545 Excavating</p> <p>EXCAVATING, SEPTIC PUMPING, SEPTIC SYSTEMS</p> <p>James Stone</p> <ul style="list-style-type: none"> • Sewer & 14501 Lynch Hwy Drain Cleaning Plymouth, IN 46565 <p>(574) 935-5456</p> <p>www.stonexcavating.com</p>	<p>572 Insurance</p> <p>Chris Leeper Insurance Services</p> <p>Medicare Supplements Medicare Advantage Plans Prescription Drug Plans Life • Long Term Care • Annuities</p> <p>(574)546-3310</p>	<p>629 Small Appliance Repair</p> <p>Markley Appliance Repair</p> <p>Servicing most brands</p> <p>574-546-4583</p> <p>Certified Technician</p>
<p>NEED HELP with a JOB!</p> <p>Contact one of these business professionals to get the job done!</p>	<p>525 Contractors</p> <p>HOME FORCE</p> <p>Don't Move, IMPROVE!</p> <p>Additional, New Construction, Remodels, Roofs, Decks & More</p> <p>(574) 300-9903</p> <p>www.homeforceinc.com</p>	<p>525 Contractors</p> <p>TRUEMARK CONSTRUCTION</p> <p>Complete Home Remodeling & Additions</p> <ul style="list-style-type: none"> • Kitchens & Baths • Windows & Doors • Siding & Roofs • Fully Insured <p>David Heller</p> <p>574-268-4425</p>	<p>565 Home Improvement / Remodel</p> <p>Brush & Bucket of Indiana</p> <p>Professional Residential Painting</p> <p>Paint, Primer, Sealer, Caulk, Putty, Sanding, etc.</p> <p>For a detailed estimate, call</p> <p>574-250-8870</p>	<p>585 Paint/Wallpaper</p> <p>Brush & Bucket of Indiana</p> <p>Professional Residential Painting</p> <p>Paint, Primer, Sealer, Caulk, Putty, Sanding, etc.</p> <p>For a detailed estimate, call</p> <p>574-250-8870</p>	<p>650 Tree Services</p> <p>Tree trimming, topping, stump removal, fire wood, log skid, demolition, excavating, trucking</p> <p>Fully Insured</p> <p>574-936-5818</p>
<p>ATTENTION HOMEOWNERS!</p> <p>Heating Bills & Leaky Roofs Driving You Crazy?</p> <p>Call us for a Free Quote on Reroof & Insulation</p> <p>E and S Construction LLC</p> <p>574-223-3325</p> <ul style="list-style-type: none"> • Reroofs - Shingles or Metal • Pole Sheds - Insulation - Concrete Walls & Flatwork <p>Cellulose Insulation</p> <p>Rochester, IN Fax 574-223-3324</p> <p>BONDED & INSURED - FREE QUOTES</p>	<p>525 Contractors</p> <p>L-Nolt & Sons, LLC</p> <p>GENERAL CONSTRUCTION</p> <p>Commercial & Industrial Duro-Last Roofing Systems Flat or Tapered Systems Single Ply Systems</p> <p>Residential Shingles & Metal Roofing</p> <p>Steel Shingles and more</p> <p>Leroy Nolt</p> <p>574-538-9225</p> <p>Leroy@lnollandsons.com</p>	<p>620 Sewers/Septic Systems</p> <p>Everly SEWER SERVICE</p> <p>Septic Tank Cleaning & Pumping Sewer Camera & Sewer Jetting Sewer & Drain Cleaning • Portable Restrooms</p> <p>822 Dickman Street, Plymouth</p> <p>574-936-4869</p>	<p>620 Sewers/Septic Systems</p> <p>Everly SEWER SERVICE</p> <p>Septic Tank Cleaning & Pumping Sewer Camera & Sewer Jetting Sewer & Drain Cleaning • Portable Restrooms</p> <p>822 Dickman Street, Plymouth</p> <p>574-936-4869</p>	<p>Need help? Contact a local business professional to help!</p>	<p>Stuck in everyday life? Relax, read the paper! To subscribe, please call 936-3101.</p>

KING ROAD BRIDGE #73 BRIDGE REPLACEMENT in Marshall County, Indiana

Marshall County
DES No. 1600931
Wednesday, February 20, 2019
Open House 5:30pm - 6:00pm; Public Meeting: 6:00pm




Introductions

Indiana Department of Transportation

- John Krueckeberg, Project Manager
- Adam Parkhouse, Media Relations

USI Consultants, Inc.

- Brandon Arnold, Project Manager
- Ben Beer, Project Development






Meeting Setup

SIGN-IN SHEET

- Please sign the attendance sheet.

HANDOUTS

- Take a Project Information Handout.

Project Limits: On King Road






Purpose & Need


The project proposes to address:

- Poor Overall Condition of the Bridge
- Deteriorated Bridge Beams
- The Collection of Debris at the Center Pier
- Improve Safety of the Traveling Public







Poor Condition of Bridge

- Flooding of roadway



- Undermining of abutments


Deteriorated Bridge Beams





- Various bridge beams are deteriorated and have exposed or broken strands




Debris Collecting on Center Pier



- Debris is collecting on the center pier

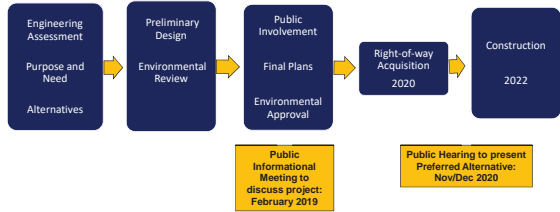
Improved Safety

- Upgrading guardrail and adding wider shoulder







PROJECT DEVELOPMENT PROCESS



```

graph LR
    A[Engineering Assessment  
Purpose and Need  
Alternatives] --> B[Preliminary Design  
Environmental Review]
    B --> C[Public Involvement  
Final Plans  
Environmental Approval]
    C --> D[Right-of-way Acquisition  
2020]
    D --> E[Construction  
2022]
    C --> F[Public Informational Meeting to discuss project:  
February 2019]
    D --> G[Public Hearing to present Preferred Alternative:  
Nov/Dec 2020]
  
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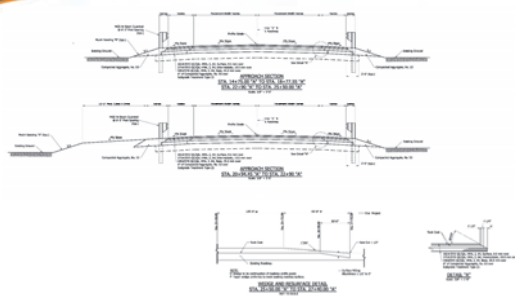


ALTERNATIVES

Other Options Considered:

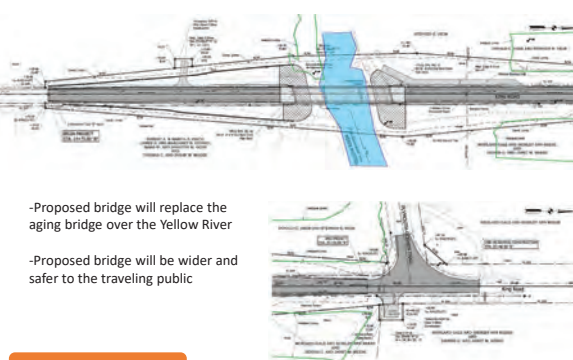
- Do nothing




TYPICAL SECTION

LIMITS OF CONSTRUCTION AT KING ROAD BRIDGE



- Proposed bridge will replace the aging bridge over the Yellow River
- Proposed bridge will be wider and safer to the traveling public

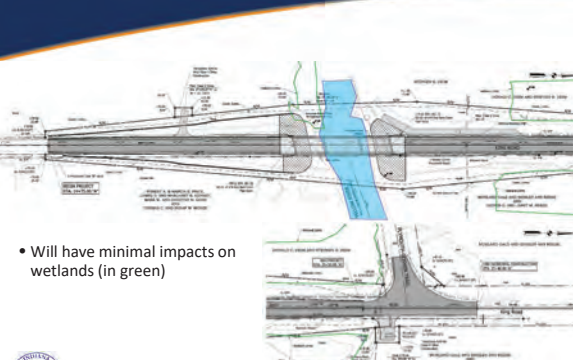
Preliminary Plans

MAINTENANCE OF TRAFFIC

Traffic Maintenance Plan:

- Bridge will be closed through the duration of construction
- Local Detour Route will utilize the following roads King Road, Plymouth Goshen Trail, Jarrah Road (will be chip sealed to Plymouth Goshen Trail and 8A Road)
- Truck Detour Route will utilize US31, US 6, US 331, US 30
- Contractor will maintain access to properties

ENVIRONMENTAL OVERVIEW



- Will have minimal impacts on wetlands (in green)

ESTIMATED PROJECT COSTS

ESTIMATED PROJECT COSTS	
ROAD CONSTRUCTION	\$1,820,000.00
DESIGN (Design includes: Survey, Environmental, Design, and R/W Services)	\$270,000.00
UTILITY RELOCATION COSTS	Unknown at this time
RIGHT-OF-WAY PURCHASES	\$62,000.00
CONSTRUCTION INSPECTION	\$273,000.00
OVERALL PROJECT TOTAL	\$2,425,000.00

THANK YOU!

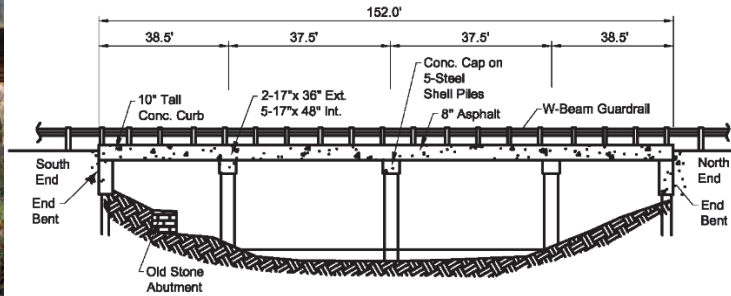
Questions will be answered at the Plan Tables

MARSHALL COUNTY BRIDGE #73

King Road over Yellow River



Existing bridge on King Road



Existing bridge profile

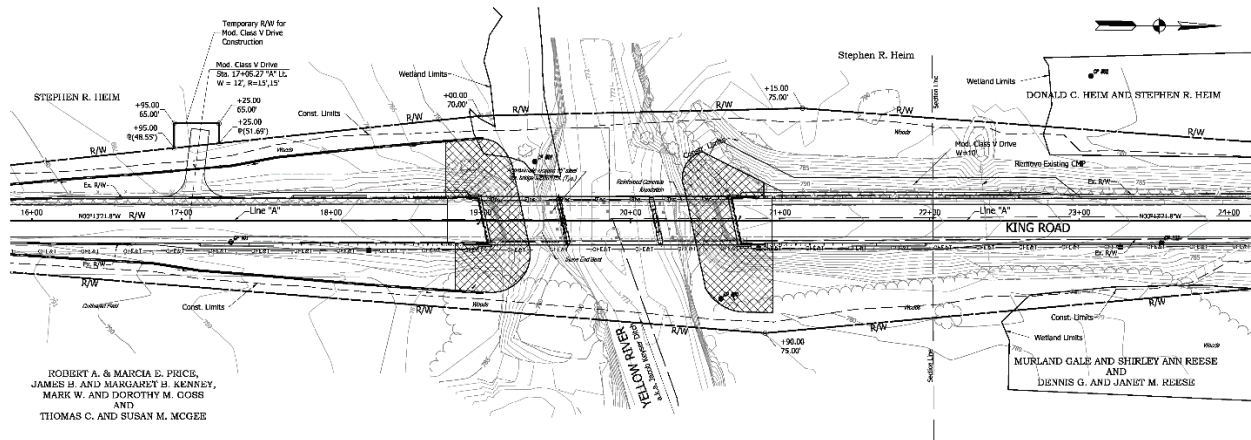
Why is this project being done?

1. Purpose of the proposed bridge is to replace the aging bridge over the Yellow River
2. Current bridge has piers in the water that collect debris and can restrict the flow of water during flooding events
3. Existing center pier collects debris and has become a maintenance issue
4. Proposed bridge will be longer and wider
5. Proposed bridge will have an upgraded concrete railing on the bridge
6. Will also have upgraded guardrail on all 4 corners of the bridge

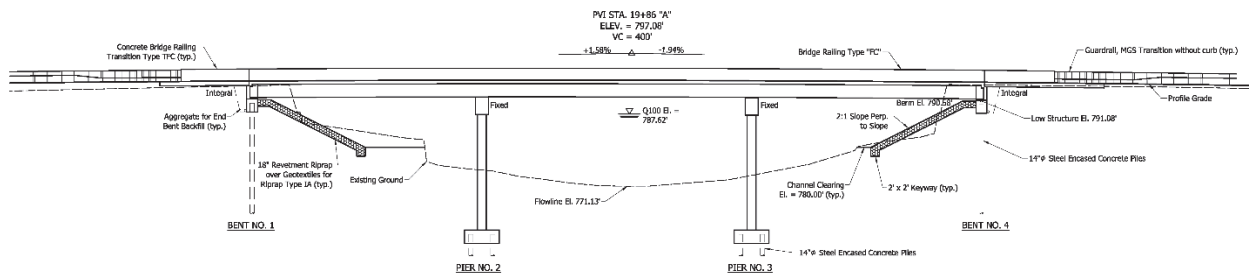
*New bridge will be safer to the traveling public and
will have less maintenance issues over time*

MARSHALL COUNTY BRIDGE #73

King Road over Yellow River

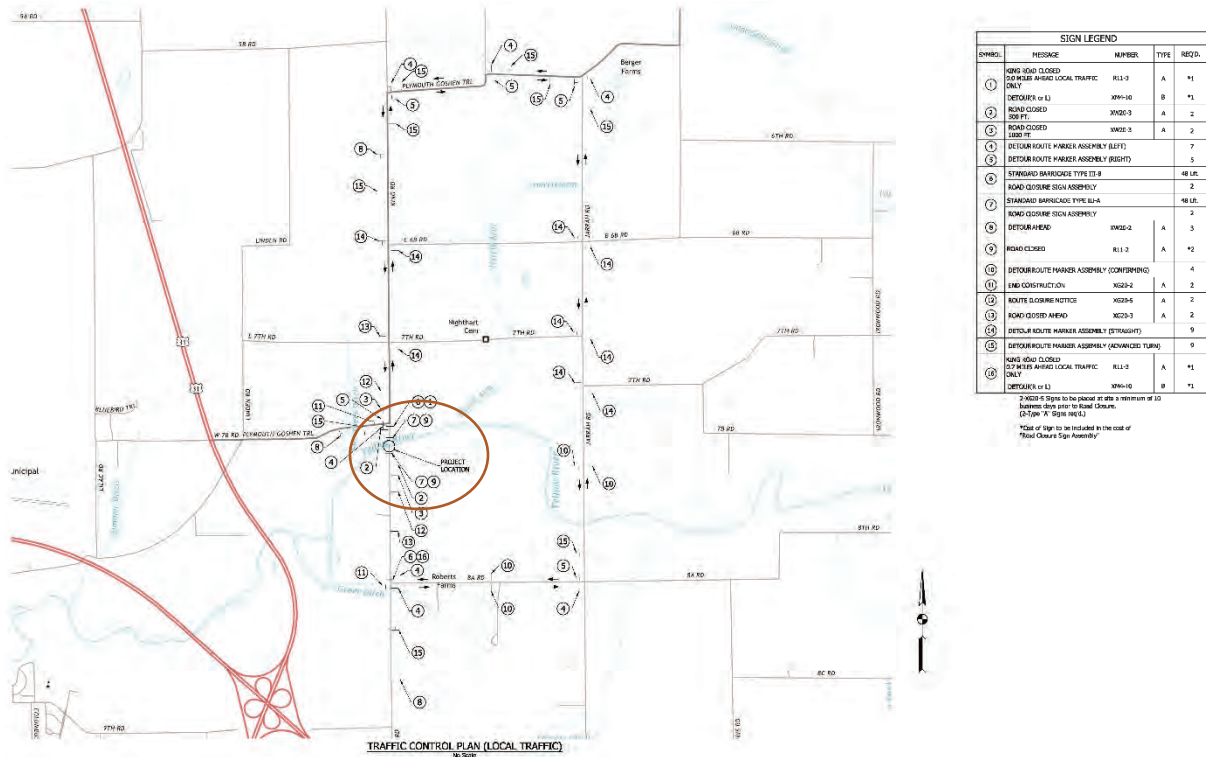


Proposed bridge layout



Proposed bridge profile

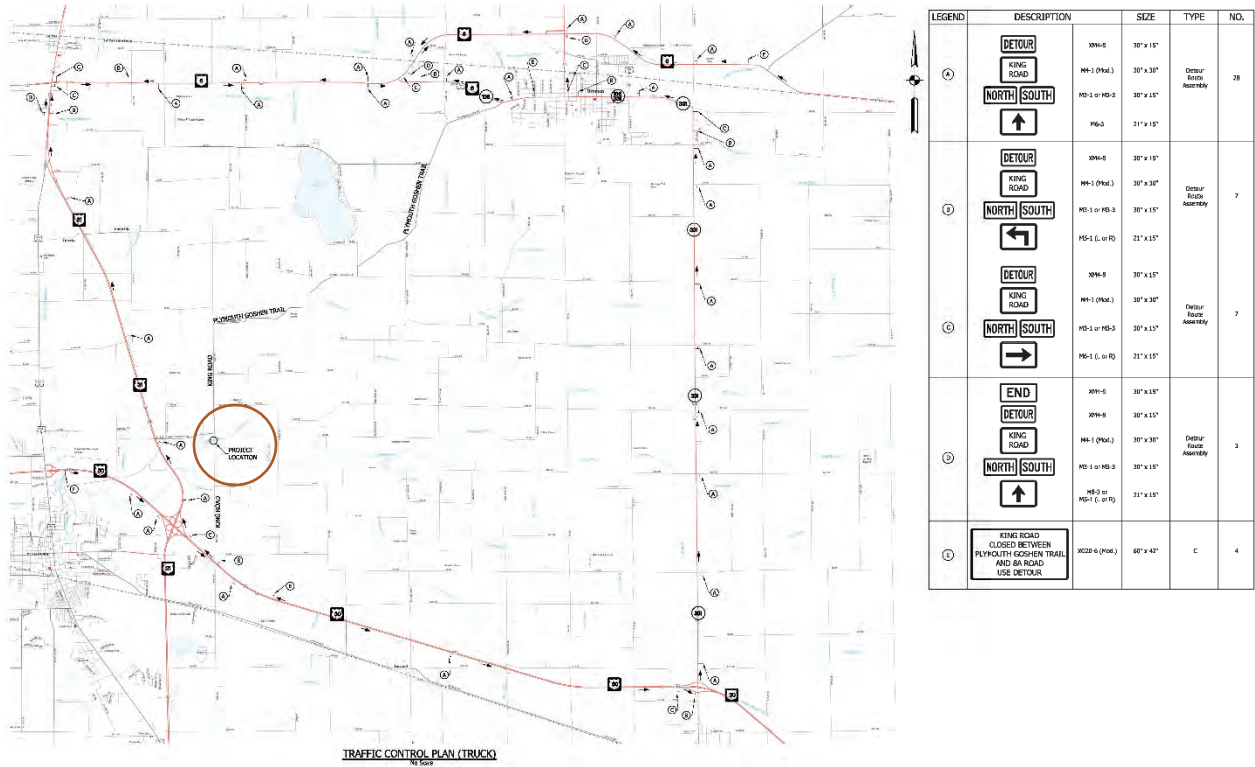
KING ROAD LOCAL DETOUR ROUTE



Detour Route for Local Traffic

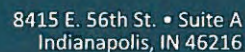
1. Bridge will be closed through the duration of construction
2. Construction will start in 2022 and will be completed within the same construction season
3. The local traffic detour route will utilize the following roads
 - King Road
 - Plymouth Goshen Trail
 - Jarrah Road (will be chip and sealed to Plymouth Goshen Trail)
 - 8A Road
4. Detour route will have detour route signs showing which direction to go

KING ROAD TRUCK DETOUR ROUTE



Detour Route for Truck Traffic

1. Bridge will be closed through the duration of construction
2. Construction will start in 2022 and will be completed within the same construction season
3. The truck traffic detour route will utilize the following roads
 - US 31
 - US 6
 - US 331
 - US 30
4. Detour route will have detour route signs showing which direction to go



COMMENT SHEET

Please provide your comments, concerns, and/or suggestions regarding the proposed King Road Bridge #73 over the Yellow River project. Your comments are important to us, and we sincerely appreciate your time and participation during the public involvement process. Please submit comments by Wednesday, March 13th, 2019. Comments may be mailed or submitted via email to the contact below.

Brandon Arnold
USI Consultants, Inc.
824 Lincolnway
LaPorte, Indiana 46350
Phone: (219) 369-6546
Email: barnold@usiconsultants.com

Meeting Date: Wednesday, February 27th 2019

Project: King Road Bridge #73 over the Yellow River (Des. 1600931)

Name: (Please Print) Stephen Heim
Address: 7189 King Rd. Plymouth, IN 46563

Comments: 1. Will new bridge be longer only north where the water floods? I recommend the new bridge be lengthed to the north only where the water floods over King Rd. water did not flood over King Rd on the south side of the bridge during the last flood.
2. will the additional land to be purchased, be a purchase of a easement or actual purchase? King Road is presently a easement.
3. will county move corner posts to the new boundary? will farm fence be on top of fill like it presently is or below the fill?

SIGNATURE: Stephen R. Heim

April 22, 2019

Mr. Stephen Heim
7189 King Road
Plymouth, IN 46563

RE: Marshall County Bridge No. 73 – King Road over Yellow River - Replacement

Dear Mr. Heim,

Today I received your questions regarding the replacement of Marshall County Bridge No. 73 carrying King Road over Yellow River (INDOT DES No. 1600931). Thank you for sending in your questions. Providing feedback and questions such as these are critical to the project's overall success.

The following are our responses to your questions. Please let me know if you would like anything else answered.

- 1) **Q:** *Will the new bridge be longer only north where the water floods? I recommend the new bridge be lengthened to the north only where the water floods over King Road. Water did not flood over King Road on the south side of the bridge during the last flood.*

A: The new bridge will be longer in both directions, nearly symmetrically. This is due to many factors. Some of these factors include locating new substructure units to miss the existing to avoid interference with existing driven piles, proper span arrangement for balancing of moments and shears creating a more efficient structural design, the topographic geometry of the existing channel and floodway, placing the bridge within the design vertical curve to satisfy critical geometric design criteria concerning stopping sight distance, etc. The bridge will be lengthened so that the peak flood waters overtop the north approach roadway, but at a significantly reduced depth – approximately 4 inches instead of more than 1 ft as created by the existing conditions.

- 2) **Q:** *Will the additional land to be purchased be a purchase of an easement or an actual purchase? King Road is presently an easement.*

A: Additional right-of-way purchased for this project will be acquired in fee simple through a warranty deed. Any existing right-of-way areas where rights were obtained from grants (roadway easements) will be reacquired in fee simple.

- 3) **Q:** *Will Marshall County move the corner posts to the new boundary? Will farm fence be on top of fill like it presently is or below the fill?*

A: The wire fence in the northeast quadrant will be removed without replacement. This has been coordinated with the appropriate landowner. For the remaining quadrants, the fence and gates will be replaced and will be located along the new right-of-way limits. There are options for the installation of the new fence and posts as part of the project's construction. Their installation could be part of the project's construction or it may be more beneficial to replace the fence using a cost-to-cure option. These details will be decided at a later date as part of the right-of-way acquisition process.

Again, I appreciate your feedback. We look forward to completing this project to help you and the citizens of Marshall County.

Respectfully,

A handwritten signature in black ink, appearing to read 'Brandon M. Arnold', written over a horizontal line.

Brandon M. Arnold, PE
Bridge Department Manager

Categorical Exclusion

Appendix H

Air Quality

TRANSPORTATION IMPROVEMENT PROGRAM

Locally Sponsored Projects

DES	Location	Work Type	Fund Type	Phase	Federal	Match	Total	Estimated to Complete	Fiscal Year
Town of Culver									
1801120	Lake Max Trail Phase II, Culver Park to W. Shore Dr	Bike/Pedestrian Facilities	TAP	RW	\$60,000	\$15,000	\$75,000	\$1,392,179	2020
1801120	Lake Max Trail Phase II, Culver Park to W. Shore Dr	Bike/Pedestrian Facilities	TAP	CN	\$858,257	\$214,564	\$1,072,821	\$1,392,179	2022
1801238	SR 10 Sidewalks from School St to N Lakeshore Dr	Bike/Pedestrian Facilities	TAP	CN	\$165,742	\$41,435	\$207,177	\$307,823	2022
1801239	West Jefferson Streetscape Improvements	Landscaping	TAP	CN	\$580,869	\$145,217	\$726,086	\$863,914	2022
1802913	Lake Max Trail Phase III, from Academy Rd to SR 10/117	Bike/Pedestrian Facilities	TAP	PE	\$118,000	\$29,500	\$147,500	\$967,000	2020
1802913	Lake Max Trail Phase III, from Academy Rd to SR 10/117	Bike/Pedestrian Facilities	TAP	RW	\$64,000	\$16,000	\$80,000	\$967,000	2022
1802913	Lake Max Trail Phase III, from Academy Rd to SR 10/117	Bike/Pedestrian Facilities	TAP	CN	\$592,000	\$148,000	\$740,000	\$967,000	2024
Marshall County									
1592161	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Bridge Inspections	Bridge	PE	\$90,922	\$22,731	\$113,653	\$113,653	2020 2021 2022
1600931	Bridge No. 73 carrying King Rd over the Yellow River	Bridge Replacement, Other Construction	Bridge	RW	\$49,600	\$12,400	\$62,000	\$2,117,125	2020
1600931	Bridge No. 73 carrying King Rd over the Yellow River	Bridge Replacement, Other Construction	Bridge	CN	\$1,674,400	\$418,600	\$2,093,000	\$2,117,125	2022
1702838	Marshall County Bridge #120: South Upas Road over Yellow River	Bridge Replacement, Other Construction	Bridge	PE	\$112,840	\$28,210	\$141,050	\$2,697,201	2020

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

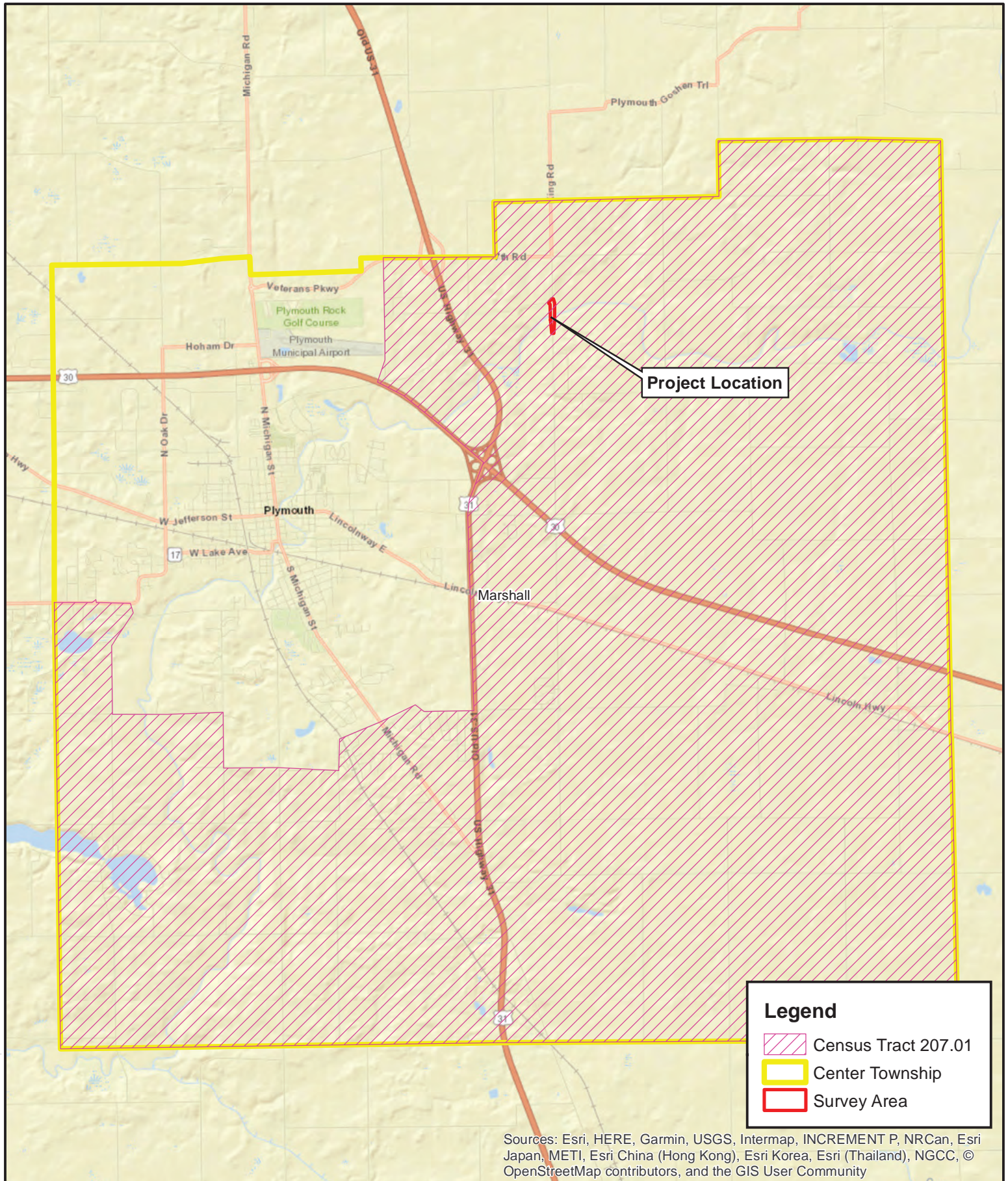
SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Indiana Department of Transportation	1902158	A 10	US 30	Auxiliary Lane Construction	US 30 at Elkhart Western RR	LaPorte	0	NHPP	\$375,000.00	District Other Construction	CN	\$268,000.00	\$67,000.00	\$335,000.00				
Comments:MACOG approved TIP resolution 47-19 dated 10/9/19. FY20 PE \$40,000 and FY20 CN \$335,000.																		
Indiana Department of Transportation	40644 / 1600359	Init.	US 30	HMA Overlay, Preventive Maintenance	From 3.33 mi E of SR 23 (Union Rd) to SR 17	LaPorte	6.957	NHPP		Road Consulting	PE	\$240,000.00	\$60,000.00		\$300,000.00			
										Road Construction	CN	\$3,221,712.80	\$805,428.20		\$4,027,141.00			
										Bridge Construction	CN	\$1,604,974.40	\$401,243.60	\$40,000.00	\$1,966,218.00			
Marshall County	40720 / 1600931	Init.	IR 1036	Bridge Replacement, Other Construction	Bridge No. 73 carrying King Rd over the Yellow River	LaPorte	.25	STPBG		Local Bridge Program	CN	\$1,674,400.00	\$0.00			\$1,674,400.00		
										Local Bridge Program	RW	\$49,600.00	\$0.00	\$49,600.00				
										Local Funds	CN	\$0.00	\$418,600.00			\$418,600.00		
										Local Funds	RW	\$0.00	\$12,400.00	\$12,400.00				
Marshall County	40720 / 1600931	M 02	IR 1036	Bridge Replacement, Other Construction	Bridge No. 73 carrying King Rd over the Yellow River	LaPorte	.25	STBG	\$2,192,100.00	Local Bridge Program	PE	\$29,680.00	\$0.00	\$29,680.00				
										Local Funds	PE	\$0.00	\$7,420.00	\$7,420.00				
Comments:In MPO area No MPO funds. Local bridge funds adding funds to FY20. \$29680.00 in Federal and \$7,420.00 in local. Attached MACOG resolution 44-19																		
Marshall County	40720 / 1600931	M 04	IR 1036	Bridge Replacement, Other Construction	Bridge No. 73 carrying King Rd over the Yellow River	LaPorte	.25	STBG	\$2,155,000.00	Local Bridge Program	RW	\$0.00	\$0.00	(\$49,600.00)	\$49,600.00			
										Local Funds	RW	\$0.00	\$0.00	(\$12,400.00)	\$12,400.00			
Comments:Moving RW Phase from FY20 to FY21 MACOG Modification October 2019																		
Plymouth	40735 / 1600926	Init.	ST 1035	Road Reconstruction (3R/4R Standards)	Hoham Drive starting at N Michigan Street to 400' W of Western Avenue	LaPorte	.283	STPBG		Local Funds	CN	\$0.00	\$536,852.40			\$536,852.40		
										Local Funds	RW	\$0.00	\$106,000.00	\$106,000.00				
										Group III Program	CN	\$2,147,409.60	\$0.00			\$2,147,409.60		
										Group III Program	RW	\$424,000.00	\$0.00	\$424,000.00				
Plymouth	40735 / 1600926	M 02	ST 1035	Road Reconstruction (3R/4R Standards)	Hoham Drive starting at N Michigan Street to 400' W of Western Avenue	LaPorte	.283	STBG	\$3,214,262.00	Local Funds	RW	\$0.00	-\$7,960.00	(\$7,960.00)				

*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

Environmental Justice Analysis



Project Location

Legend


-  Census Tract 207.01
-  Center Township
-  Survey Area


Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



LOCHMUELLER GROUP
 3502 Woodview Trace, Suite 150
 Indianapolis, IN 46268
 Phone: (317) 222-3880
 Fax: (317) 222-3881

EJ Analysis Map
Des. No. 1600931

0 0.5 1
 Miles



County: Marshall Created: 11/16/2018
 Township: Center S. Beaupre
 State: Indiana

Marshall Co. Bridge #73
Bridge Replacement
King Road, 1.9 mi. N of US 30

Marshall Co Bridge 73 - EJ Analysis (Des. No. 1600931)

2013-2017 American Community Survey 5-Year Estimates

		COC	AC 1
		Center Township, Marshall County, Indiana	Census Tract 207.01, Marshall County, Indiana
LOW INCOME			
B17001001	Population for whom poverty status is determined: Total	15,127	3,547
B17001002	Population for whom poverty status is determined: Income in past 12 months below poverty level	2,517	121
	Percent Low-Income	16.6%	3.4%
	125% Reference Increment (Applied to COC Only and Compared Against the AC)	20.8%	AC < 125% COC
	AC Percent Low-Income > 125% of COC?		No
	AC Percent Low-Income > 50%?		No
	Elevated Low-Income Population Present?		No

	MINORITY		
B03002001	Total Population: Total	15,497	3,555
B03002002	Total Population: Not Hispanic or Latino	12,522	3,163
B03002003	Total Population: Not Hispanic or Latino; White Alone	12,083	3,123
B03002004	Total Population: Not Hispanic or Latino; Black or African American Alone	85	0
B03002005	Total Population: Not Hispanic or Latino; American Indian or Alaska Native Alone	0	0
B03002006	Total Population: Not Hispanic or Latino; Asian Alone	151	40
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	203	0
B03002010	Total Population: Hispanic or Latino	2,975	392
B03002011	Total Population: Hispanic or Latino; White Alone	1272	99
B03002012	Total Population: Hispanic or Latino; Black or African American Alone	0	0
B03002013	Total Population: Hispanic or Latino; American Indian or Alaska Native Alone	57	0
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	1552	293
B03002017	Total Population: Hispanic or Latino; Two or More Races	94	0
	Number Non-White / Minority (Sum B03002004 thru B03002010)	3,414	432
	Percent Non-White / Minority	22.0%	12.2%
	125% Reference Increment (Applied to COC Only and Compared Against the AC)	27.5%	AC < 125% COC
	AC Percent Minority > 125% of COC?		No
	AC Percent Minority > 50%?		No
	Elevated Minority Population Present?		NO



B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Universe: Population for whom poverty status is determined
2013-2017 American Community Survey 5-Year Estimates

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

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

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

	Center township, Marshall County, Indiana		Census Tract 207.01, Marshall County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	15,127	+/-86	3,547	+/-230
Income in the past 12 months below poverty level:	2,517	+/-483	121	+/-83
Male:	1,029	+/-235	33	+/-34
Under 5 years	108	+/-69	0	+/-11
5 years	11	+/-18	0	+/-11
6 to 11 years	125	+/-70	10	+/-15
12 to 14 years	165	+/-98	0	+/-11
15 years	6	+/-11	0	+/-11
16 and 17 years	28	+/-29	0	+/-11
18 to 24 years	118	+/-58	3	+/-6
25 to 34 years	67	+/-57	0	+/-11
35 to 44 years	134	+/-59	9	+/-15
45 to 54 years	190	+/-90	0	+/-11
55 to 64 years	46	+/-30	11	+/-14
65 to 74 years	31	+/-28	0	+/-11
75 years and over	0	+/-18	0	+/-11
Female:	1,488	+/-294	88	+/-61
Under 5 years	82	+/-60	0	+/-11
5 years	35	+/-41	0	+/-11
6 to 11 years	146	+/-78	10	+/-16
12 to 14 years	119	+/-79	0	+/-11
15 years	46	+/-42	0	+/-11
16 and 17 years	66	+/-52	0	+/-11
18 to 24 years	216	+/-102	30	+/-44
25 to 34 years	141	+/-63	0	+/-11
35 to 44 years	243	+/-94	18	+/-18
45 to 54 years	131	+/-65	13	+/-19
55 to 64 years	118	+/-57	0	+/-11
65 to 74 years	90	+/-53	9	+/-13
75 years and over	55	+/-30	8	+/-14
Income in the past 12 months at or above poverty level:	12,610	+/-487	3,426	+/-226
Male:	6,424	+/-323	1,744	+/-185
Under 5 years	455	+/-105	149	+/-72

	Center township, Marshall County, Indiana		Census Tract 207.01, Marshall County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
5 years	95	+/-51	18	+/-19
6 to 11 years	495	+/-121	101	+/-75
12 to 14 years	240	+/-108	59	+/-46
15 years	70	+/-53	40	+/-40
16 and 17 years	165	+/-67	57	+/-44
18 to 24 years	616	+/-148	76	+/-51
25 to 34 years	767	+/-158	142	+/-63
35 to 44 years	716	+/-138	264	+/-81
45 to 54 years	915	+/-155	225	+/-72
55 to 64 years	880	+/-113	252	+/-71
65 to 74 years	592	+/-93	266	+/-61
75 years and over	418	+/-86	95	+/-45
Female:	6,186	+/-363	1,682	+/-149
Under 5 years	280	+/-118	48	+/-32
5 years	47	+/-35	15	+/-19
6 to 11 years	477	+/-133	157	+/-84
12 to 14 years	212	+/-109	96	+/-72
15 years	253	+/-77	10	+/-24
16 and 17 years	129	+/-73	44	+/-32
18 to 24 years	513	+/-137	121	+/-47
25 to 34 years	574	+/-119	115	+/-43
35 to 44 years	829	+/-150	234	+/-49
45 to 54 years	878	+/-159	294	+/-77
55 to 64 years	793	+/-127	253	+/-58
65 to 74 years	644	+/-88	171	+/-49
75 years and over	557	+/-102	124	+/-47

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

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

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

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

Explanation of Symbols:

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

	Census Tract 207.01, Marshall County, Indiana
	Margin of Error
Total:	+/-220
Income in the past 12 months below poverty level:	+/-103
Male:	+/-60
Under 5 years	+/-15
5 years	+/-11
6 to 11 years	+/-17
12 to 14 years	+/-11
15 years	+/-11
16 and 17 years	+/-11
18 to 24 years	+/-15
25 to 34 years	+/-13
35 to 44 years	+/-17
45 to 54 years	+/-6
55 to 64 years	+/-19
65 to 74 years	+/-6
75 years and over	+/-11
Female:	+/-49
Under 5 years	+/-11
5 years	+/-11
6 to 11 years	+/-17
12 to 14 years	+/-11
15 years	+/-11
16 and 17 years	+/-11
18 to 24 years	+/-21
25 to 34 years	+/-11
35 to 44 years	+/-17
45 to 54 years	+/-5
55 to 64 years	+/-11
65 to 74 years	+/-14
75 years and over	+/-14
Income in the past 12 months at or above poverty level:	+/-235
Male:	+/-194
Under 5 years	+/-57
5 years	+/-26
6 to 11 years	+/-86
12 to 14 years	+/-25
15 years	+/-34
16 and 17 years	+/-39
18 to 24 years	+/-61
25 to 34 years	+/-59
35 to 44 years	+/-69
45 to 54 years	+/-70
55 to 64 years	+/-67
65 to 74 years	+/-69
75 years and over	+/-39
Female:	+/-168
Under 5 years	+/-40
5 years	+/-18
6 to 11 years	+/-50
12 to 14 years	+/-64
15 years	+/-25
16 and 17 years	+/-38
18 to 24 years	+/-76
25 to 34 years	+/-50
35 to 44 years	+/-58
45 to 54 years	+/-75
55 to 64 years	+/-72

	Census Tract 207.01, Marshall County, Indiana
	Margin of Error
65 to 74 years	+/-34
75 years and over	+/-51

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

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

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

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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.
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.
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6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.



B03002

HISPANIC OR LATINO ORIGIN BY RACE

Universe: Total population

2013-2017 American Community Survey 5-Year Estimates

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

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

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

	Center township, Marshall County, Indiana		Census Tract 207.01, Marshall County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	15,497	+/-48	3,555	+/-229
Not Hispanic or Latino:	12,522	+/-326	3,163	+/-321
White alone	12,083	+/-334	3,123	+/-319
Black or African American alone	85	+/-40	0	+/-11
American Indian and Alaska Native alone	0	+/-18	0	+/-11
Asian alone	151	+/-91	40	+/-57
Native Hawaiian and Other Pacific Islander alone	0	+/-18	0	+/-11
Some other race alone	0	+/-18	0	+/-11
Two or more races:	203	+/-137	0	+/-11
Two races including Some other race	0	+/-18	0	+/-11
Two races excluding Some other race, and three or more races	203	+/-137	0	+/-11
Hispanic or Latino:	2,975	+/-324	392	+/-290
White alone	1,272	+/-471	99	+/-116
Black or African American alone	0	+/-18	0	+/-11
American Indian and Alaska Native alone	57	+/-98	0	+/-11
Asian alone	0	+/-18	0	+/-11
Native Hawaiian and Other Pacific Islander alone	0	+/-18	0	+/-11
Some other race alone	1,552	+/-487	293	+/-275
Two or more races:	94	+/-77	0	+/-11
Two races including Some other race	15	+/-26	0	+/-11
Two races excluding Some other race, and three or more races	79	+/-71	0	+/-11

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

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

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

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

Explanation of Symbols:

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

Categorical Exclusion

Appendix J

Other Information

Bridge Inspection Report

50-00073
KING ROAD
over
YELLOW RIVER



Inspection Date: 10/24/2019

Inspected By: Brandon M. Arnold

Inspection Type(s): Routine

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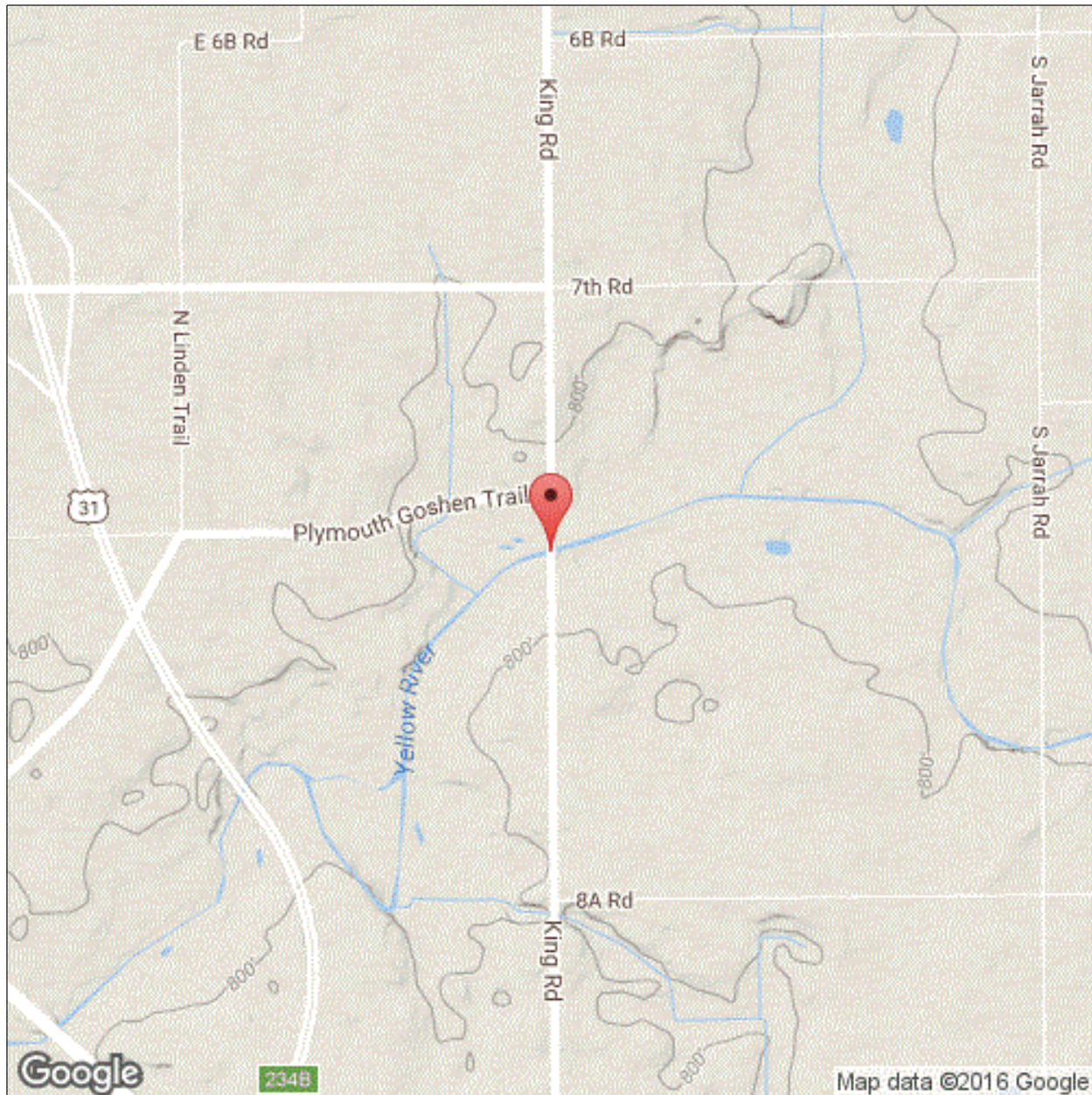
Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



Latitude: 41.36897

Longitude: -86.26146

Inspector: Brandon M. Arnold

Asset Name: 50-00073

Inspection Date: 10/24/2019

Facility Carried: KING ROAD

Bridge Inspection Report

END BENT 5 UNDERCUT WITH EXPOSED PILES. VEGETATION IN GUTTERS, EXCESSIVE DEAD LOAD. HEAVY SEEPAGE AND LEACHING BETWEEN BEAMS. SPAN A BEAMS 2, 3, 4, 5 AND 6 CRACKED AND SPALLED WITH EXPOSED STRANDS; SPAN B BEAMS 1, 3, 4 AND 5 CRACKED AND SPALLED WITH EXPOSED STRANDS; SPAN C BEAMS 3, 4, AND 6 CRACKED AND SPALLED WITH EXPOSED STRANDS; SPAN D ALL BEAMS HAVE CRACKS OR SPALLS WITH EXPOSED STRANDS. SEVERAL STRANDS SEVERED. BENT CAPS CRACKED. HEAVY FLAKING RUST ON PILES AT BENT CAPS AND AT ORDINARY HIGH WATER MARK. COMPLETE RUST THROUGH ON SOME PILES AT TOPS.

REPLACE STRUCTURE IN 2022 DUE TO ADVANCED DETERIORATION AND POOR DECK GEOMETRY. REPLACEMENT BRIDGE CURRENTLY IN DESIGN.

Inspector: Brandon M. Arnold

Asset Name: 50-00073

Inspection Date: 10/24/2019

Facility Carried: KING ROAD

Bridge Inspection Report

IDENTIFICATION

(1) STATE CODE:	185 - Indiana	(12) BASE HIGHWAY NETWORK:	0
(8) STRUCTURE:	5000058	(13A) INVENTORY ROUTE:	
(5 A-B-C-D-E) INV. ROUTE:	1 - 4 - 1 - 00000 - 0	(13B) SUBROUTE NUMBER:	
(2) HIGHWAY AGENCY DISTRICT:	04 - La Porte	(16) LATITUDE:	41.36897
(3) COUNTY CODE:	050 - MARSHALL	(17) LONGITUDE:	-86.26146
(4) PLACE CODE:	00000 - N/A	(98) BORDER	
(6) FEATURES INTERSECTED:	YELLOW RIVER	A) STATE NAME:	
(7) FACILITY CARRIED:	KING ROAD	B) PERCENT	%
(9) LOCATION:	00.10 S OF PLY-GO TRAIL	(99) BORDER BRIDGE STRUCT. NO:	
(11) MILEPOINT:	0000.000		

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:		(45) NUMBER OF SPANS IN MAIN	004
A) KIND OF MATERIAL/DESIGN:	5 - Prestressed concrete	UNIT:	
B) TYPE OF DESIGN/CONSTR:	05 - Box Beam or Girders - Multiple	(46) NUMBER OF APPROACH SPANS:	0000
(44) STRUCTURE TYPE, APPROACH SPANS:		(107) DECK STRUCTURE TYPE:	2 - Concrete Precast Panels
A) KIND OF MATERIAL/DESIGN:	0 - Other	(108) WEARING SURFACE/PROT SYS:	
B) TYPE OF DESIGN/CONSTR:	00 - Other	A) WEARING SURFACE:	6 - Bituminous
		B) DECK MEMBRANE:	0 - None
		C) DECK PROTECTION:	0 - None

AGE OF SERVICE

(27) YEAR BUILT:	1966	(28) LANES:	
(106) YEAR RECONSTRUCTED:	0000	A) ON BRIDGE:	02
(42) TYPE OF SERVICE:		B) UNDER BRIDGE:	00
A) ON BRIDGE:	1 - Highway	(29) AVERAGE DAILY TRAFFIC:	001250
B) UNDER BRIDGE:	5 - Waterway	(30) YEAR OF AVERAGE DAILY TRAFFIC:	2017
		(109) AVERAGE DAILY TRUCK TRAFFIC:	05 %
		(19) BYPASS DETOUR LENGTH:	002 MI

Bridge Inspection Report

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN:	00038.5 FT	(35) STRUCTURE FLARED:	0 - No flare
(49) STRUCTURE LENGTH:	00152.0 FT	(10) INV RTE, MIN VERT CLEARANCE:	99.99 FT
(50) CURB/SIDEWALK WIDTHS:		(47) TOT HORIZ CLEARANCE:	024.3 FT
A) LEFT	01.0 FT	(53) VERT CLEAR OVER BR RDWY:	99.99 FT
B) RIGHT:	01.0 FT	(54) MIN VERTICAL UNDERCLEARANCE:	
(51) BRDG RDWY WIDTH CURB-TO-CURB:	024.3 FT	A) REFERENCE FEATURE:	N
(52) DECK WIDTH, OUT-TO-OUT:	026.3 FT	B) MIN VERT UNDERCLEAR:	00.00 FT
(32) APPROACH ROADWAY	021.0 FT	(55) LATERAL UNDERCLEARANCE RIGHT:	
(33) BRIDGE MEDIAN:	0 - No median	A) REFERENCE FEATURE:	N
(34) SKEW:	20 DEG	B) MIN LATERAL UNDERCLEAR:	000.0 FT
		(56) MIN LATERAL UNDERCLEAR ON LEFT:	000.0 FT

INSPECTIONS

(90) INSPECTION DATE:	10/24/2019	(91) DESIGNATED INSPECTION FREQUENCY:	12 MONTHS
(92) CRITICAL FEATURE INSPECTION:		(93) CRITICAL FEATURE INSPECTION DATE:	
A) FRACTURE CRITICAL REQUIRED/FREQUENCY:	N	A) FRACTURE CRITICAL DATE:	
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY:	N	B) UNDERWATER INSP DATE:	
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY:	N	C) OTHER SPECIAL INSP DATE:	

CONDITION

(58) DECK:	4 - Poor Condition (advanced deterioration)	(60) SUBSTRUCTURE:	4 - Poor Condition (advanced deterioration)
(58.01) WEARING SURFACE:	6 - Satisfactory Condition	(61) CHANNEL/CHANNEL PROTECTION:	7 - Bank protection needs minor repairs
(59) SUPERSTRUCTURE:	4 - Poor Condition (advanced deterioration)	(62) CULVERTS:	N - Not Applicable

CONDITION COMMENTS

(58) DECK: **4 - Poor Condition (advanced deterioration)**

Comments:

POOR-SEEPAGE-LEACHING-SPALLS-CRACKS

Material: 7-17" PRECAST CONCRETE BOX BEAMS

(58.01) WEARING SURFACE: **6 - Satisfactory Condition**

Comments:

CHIP SEALED SUMMER 2019. VEGETATION IN SHOULDERS. TRANSVERSE CRACKS AT PIERS.

Material: 8" CHIP & SEAL

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report

(59) SUPERSTRUCTURE: 4 - Poor Condition (advanced deterioration)

Comments:

POOR-SPALLS-EXPOSED RUSTED SEVERED STRANDS

Material: 7-17" PRESTRESSED CONCRETE BOX BEAMS

(60) SUBSTRUCTURE: 4 - Poor Condition (advanced deterioration)

Comments:

POOR-CRACKS-FLAKING RUST-INTERIOR CONCRETE EXPOSED ON MULTIPLE PILES, PIER 3 WORST

Material: CONCRETE CAPS ON STEEL PILES

(61) CHANNEL/CHANNEL PROTECTION 7 - Bank protection needs minor repairs

Comments:

GOOD-MINOR LOCALIZED SCOUR @ BENT 3

Material: OLD STONE ABUTMENTS-VEGETATION

(62) CULVERTS: N - Not Applicable

Comments:

N/A Material: N/A

LOAD RATING AND POSTING

(31) DESIGN LOAD:	5 - HS 20	(66) INVENTORY RATING:	36
(70) BRIDGE POSTING	5 - Equal to or above legal loads	(65) INVENTORY RATING METHOD:	0 - Field evaluation and documented engineering judgment
(41) STRUCTURE OPEN/POSTED/CLOSED:	A - Open	(66B) INVENTORY RATING (H):	20
(64) OPERATING RATING:	45	(66C) TONS POSTED :	
(63) OPERATING RATING METHOD:	0 - Field evaluation and documented engineering judgment	(66D) DATE POSTED/CLOSED:	

APPRAISAL

SUFFICIENCY RATING:	47.6	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	1	36A) BRIDGE RAILINGS:	0
(67) STRUCTURAL EVALUATION:	4	36B) TRANSITIONS:	0
(68) DECK GEOMETRY:	4	36C) APPROACH GUARDRAIL:	0
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	N	36D) APPROACH GUARDRAIL ENDS:	0
(71) WATERWAY ADEQUACY:	4 - Occasional Overtopping of Deck and Approaches - Significant Delays		
Comments:			
WATERS GO OVER ROAD			
(72) APPROACH ROADWAY ALIGNMENT:	8 - Equal to present desirable criteria		
Comments:			
SATISFACTORY-CRACKS-RAVELING Material: CHIP & SEAL			
(72): VERY GOOD-STRAIGHT-"T" INTERSECTION NORTH			
(113) SCOUR CRITICAL BRIDGES:	5 - Scour within limits of footing or piles		
Comments:			
STABLE - WITHIN LIMITS			

Inspector: Brandon M. Arnold

Asset Name: 50-00073

Inspection Date: 10/24/2019

Facility Carried: KING ROAD

Bridge Inspection Report

CLASSIFICATION

(20) TOLL:	3 - On Free Road	(21) MAINT. RESPONSIBILITY:	02 - County Highway Agency
(22) OWNER:	02 - County Highway Agency	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	08 - Rural - Minor Collector
(37) HISTORICAL SIGNIFICANCE:	5 - Not eligible	(100) STRAHNET HIGHWAY:	Not a STRAHNET route
(101) PARALLEL STRUCTURE:	N - No parallel structure	(102) DIRECTION OF TRAFFIC:	2-way traffic
(103) TEMPORARY STRUCTURE:		(104) HIGHWAY SYSTEM OF INVENTORY ROUTE:	0 - Structure/Route is NOT on NHS
(105) FEDERAL LANDS HIGHWAYS:	0-Not Applicable	(110) DESIGNATED NATIONAL NETWORK:	Inventory route not on network
(112) NBIS BRIDGE LENGTH:	Yes		

NAVIGATION DATA

(38) NAVIGATION CONTROL:	0 - No navigation control on waterway (bridge permit not required)	(39) NAVIGATION VERTICAL CLEAR:	000.0 FT
(111) PIER OR ABUTMENT PROTECTION:		(116) MINIMUM NAVIGATION VERT. CLEARANCE, VERT. LIFT BRIDGE:	FT
		(40) NAV HORIZONTAL CLEARANCE:	0000.0 FT

PROPOSED IMPROVEMENTS

(75A) TYPE OF WORK:	31 - Replacement - Load/Geometry	(95) ROADWAY IMPROVEMENT COST:	\$ 000500
(75B) WORK DONE BY:	1 - Work to be done by contract	(96) TOTAL PROJECT COST:	\$ 001500
(76) LENGTH OF IMPROVEMENT:	000160 FT	(97) YR OF IMPROVEMENT COST EST:	2018
(94) BRIDGE IMPROVEMENT COST:	\$ 001000	(114) FUTURE AVG DAILY TRAFFIC:	001975
		(115) YR OF FUTURE ADT:	2037

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 1

Description South Approach to Structure Looking North



PHOTO 2

Description East Face of Structure - Looking Downstream

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 3

Description Looking at Bent 2 Pile Rust Through



PHOTO 4

Description Beam D2 - Deterioration Hanging Strands

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 5

Description Between Span 1 & 2 Looking East



PHOTO 6

Description Between Span 2 & 3 Looking East

Inspector: Brandon M. Arnold
Inspection Date: 10/24/2019

Asset Name: 50-00073
Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 7

Description End Bent 5 Deterioration due to Socur



PHOTO 8

Description Looking at Beam A3

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 9

Description Looking at Beam A4&5



PHOTO 10

Description Looking at Beam A5,6,&7

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 11

Description Looking at Beam C2 - Spalling



PHOTO 12

Description Looking at Beams A3-4 - Spalls

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 13

Description Looking at Beams B1-3



PHOTO 14

Description Looking at Beams B3-5

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 15

Description Looking at Beams B5-7



PHOTO 16

Description Looking at Beams C1-3

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 17

Description Looking at Beams C3-5



PHOTO 18

Description Looking at Beams C4 & C5 - Spalling

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 19

Description Looking at Beams C5-7



PHOTO 20

Description Looking at Beams D1-3

Inspector: Brandon M. Arnold
Inspection Date: 10/24/2019

Asset Name: 50-00073
Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 21

Description Looking at Beams D3-5



PHOTO 22

Description Looking at Beams D5-7

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name:

50-00073

Facility Carried:

KING ROAD

Bridge Inspection Report



PHOTO 23

Description Looking at Bent 2



PHOTO 24

Description Looking at Bent 3

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 25

Description Looking at Bent 4 - Spalling



PHOTO 26

Description Looking at Bent 5

Inspector: Brandon M. Arnold
Inspection Date: 10/24/2019

Asset Name: 50-00073
Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 27

Description Looking at End Bent 1 from End Bent 5



PHOTO 28

Description Looking at End Bent 1

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name:

50-00073

Facility Carried:

KING ROAD

Bridge Inspection Report



PHOTO 29

Description Looking Downstream



PHOTO 30

Description Looking Upstream

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 31

Description Nest on Bent 2 between Beams A4 and A5



PHOTO 32

Description North Approach Looking Southwest

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name:

50-00073

Facility Carried:

KING ROAD

Bridge Inspection Report



PHOTO 33

Description North Approach to Structure Looking South



PHOTO 34

Description South Approach (West) Downed Utility Locator

Inspector: Brandon M. Arnold
Inspection Date: 10/24/2019

Asset Name: 50-00073
Facility Carried: KING ROAD

Bridge Inspection Report



PHOTO 35

Description South Approach Looking Northeast



PHOTO 36

Description Vegetation on East Shoulder Looking North

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name:

50-00073

Facility Carried:

KING ROAD

Bridge Inspection Report



PHOTO 37

Description Vegetation on West Shoulder Looking North



PHOTO 38

Description West Face of Structure - Looking Upstream

Miscellaneous Asset Data
Asset Management

5000058

Load Rating 2:

Has the dead load or the structural condition of the primary load carrying members changed since the last inspection?

Extended Frequency:

Submittal Date:

Inspector:

INDOT Reviewer:

This bridge has been accepted into the Extended Frequency Program.

Approval Date:

Joints: ** Indicate location, type, and rating of lowest rated joint.*

Comments:

Terminal Joints: **Rating of lowest rated terminal joint.*

Comments:

Concrete Slopewall: **Rating of lowest rated slopewall.*

Comments:

Bearings: ** Indicate type, and rating of lowest rated bearing.*

Comments:

Approach Slabs: ** Indicate if present & condition rating.*

Comments:

Paint: * Indicate if paint present , year painted & condition rating.

Not Rated

Comments:

N/A

Scour Analysis:

Scour Critical:

Scour POA?

NBI 113 Scour Comment:

STABLE - WITHIN LIMITS

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 Birds and/or Nests Visi

BRIDGE Culvert Geometry:

Barrel Length:

Height:

Width:

Inspector: Brandon M. Arnold
Inspection Date: 10/24/2019

Structure Number: 5000058
Facility Carried: KING ROAD

Bridge Inspection Report

Channel Measurement

Date of Channel Measurements:
Distance Measured From:
Depth Measured From:
Number of Measurement Points Taken:

Number of Fixed Objects in Channel:
Water Level:
High Water Mark:
Measurement Type:

Inspector: Brandon M. Arnold

Inspection Date: 10/24/2019

Asset Name: 50-00073

Facility Carried: KING ROAD

Bridge Inspection Report

LOAD RATING - BRADIN

Load Rating Date:

National Bridge Inventory (NBI):

(66B) INVENTORY RATING (H):	20	(31) DESIGN LOAD:	5
(65) INVENTORY RATING METHOD:	0	(70) BRIDGE POSTING:	5
(66) INVENTORY RATING:	36	(41) STRUCTURE OPEN/POSTED/CLOSED:	A
(63) OPERATING RATING METHOD:	0	(66C) TONS POSTED:	
(64) OPERATING RATING:	45	(66D) DATE POSTED/CLOSED:	

Posting Configurations:

Emergency Vehicles:

EV2: LEGAL RF:

EV3: LEGAL RF:

5-Axles:

AASHTO TYPE 3S2: LEGAL RF:

SU5: LEGAL RF:

TOLL ROAD LOADING NO. 1: ROUTINE PERMIT RF:

2-Axles:

H20-44: LEGAL RF:

ALTERNATE MILITARY: LEGAL RF:

6+-Axles:

AASHTO TYPE 3-3: LEGAL RF:

LANE TYPE: LEGAL RF:

3-Axles:

HS20: LEGAL RF:

AASHTO TYPE 3: LEGAL RF:

SU6: LEGAL RF:

SPECIAL TOLL ROAD TRUCK: ROUTINE PERMIT RF:

SU7: LEGAL RF:

4-Axles:

SU4: LEGAL RF:

TOLL ROAD LOADING NO. 2:
ROUTINE PERMIT RF:

MICHIGAN TRAIN TRUCK NO. 5: ROUTINE PERMIT RF:

MICHIGAN TRAIN TRUCK NO. 8: ROUTINE PERMIT RF:

Other Configurations:

H20-44: DESIGN RF:

NRL: LEGAL RF:

SUPERLOAD-11 AXLES: SPECIAL PERMIT RF:

SUPERLOAD-13 AXLES: SPECIAL PERMIT RF:

SUPERLOAD-14 AXLES: SPECIAL PERMIT RF:

SUPERLOAD-19 AXLES (152.5T): SPECIAL PERMIT RF:

SUPERLOAD-19 AXLES (240.045T): SPECIAL PERMIT RF:



File Description Beam D2 -
Deterioration
Hanging
Strands

File Type Category



File Description Between Span
1 & 2 Looking
East

File Type Category



File Description Between Span
2 & 3 Looking
East

File Type Category



File Description East Face of
Structure -
Looking
Downstream

File Type Category



File Description End Bent 5
Deterioration
due to Socur

File Type Category



File Description Looking at
Beam A3

File Type Category



File Description Looking at
Beam A4&5

File Type Category



File Description Looking at
Beam A5,6,&7

File Type Category



File Description Looking at
Beam C2 -
Spalling

File Type Category



File Description Looking at
Beams A3-4 -
Spalls

File Type Category



File Description Looking at
Beams B1-3

File Type Category



File Description Looking at
Beams B3-5

File Type Category



File Description Looking at
Beams B5-7

File Type Category



File Description Looking at
Beams C1-3

File Type Category



File Description Looking at
Beams C3-5

File Type Category



File Description Looking at
Beams C4 &
C5 - Spalling

File Type Category



File Description Looking at
Beams C5-7

File Type Category



File Description Looking at
Beams D1-3

File Type Category



File Description Looking at
Beams D3-5

File Type Category



File Description Looking at
Beams D5-7

File Type Category



File Description Looking at Bent
2 Pile Rust
Through

File Type Category



File Description Looking at Bent
2

File Type Category



File Description Looking at Bent
3

File Type Category



File Description Looking at Bent
4 - Spalling

File Type Category



File Description Looking at Bent
5

File Type Category



File Description Looking at End
Bent 1 from
End Bent 5

File Type Category



File Description Looking at End
Bent 1

File Type Category



File Description Looking
Downstream

File Type Category



File Description Looking
Upstream

File Type Category



File Description Nest on Bent 2
between
Beams A4 and
A5

File Type Category



File Description North Approach
Looking
Southwest

File Type Category



File Description North Approach
to Structure
Looking South

File Type Category



File Description South
Approach
(West) Downed
Utility Locator

File Type Category



File Description South
Approach
Looking
Northeast

File Type Category



File Description South
Approach to
Structure
Looking North

File Type Category



File Description Vegetation on
East Shoulder
Looking North

File Type Category



File Description Vegetation on
West Shoulder
Looking North

File Type Category



File Description West Face of
Structure -
Looking
Upstream

File Type Category

1800401.4	1800401.4	Marion	Krannert Park
1800404	1800404	Marion	Major Taylor Velodrome & Lake Sullivan
1800459	1800459	Marion	Fall Creek Parkway, Fall Creek Corridor Ph.III
1800467	1800467	Marion	Hartman Park/Beech Grove Little League
1800478	1800478	Marion	Oaklondon Play Park
1800505	1800505	Marion	Fall Creek Parkway, Fall Creek Corridor Ph.III
1800541	1800541	Marion	Southwestway Park
1800600	1800600	Marion	Southport Park
1800617	1800617	Marion	Fort Benjamin Harrison Civic Plaza
1800635	1800635	Marion	Leonard Park
1800104	1800104	Marshall	Centennial Park & Plymouth Municipal Pool
1800259	1800259	Marshall	Centennial Park & Plymouth Municipal Pool
1800341	1800341	Marshall	Sunnyside Park
1800357	1800357	Marshall	Centennial Park & Plymouth Municipal Pool
1800359	1800359	Marshall	Packard Woods Park
1800388	1800388	Marshall	Argos Town Park
1800405	1800405P	Marshall	Menominee Wetlands Conservation Area
1800418	1800418	Marshall	Lake Maxinkuckee BeachCulver Park Beach
1800565	1800565	Marshall	Argos Community Park
1800630	1800630	Marshall	Pond Park
1800042	1800042	Martin	West Boggs ParkLakeview Golf Course
1800215	1800215	Martin	West Boggs ParkLakeview Golf Course
1800293	1800293	Martin	Loogootee City Park
1800363	1800363Q	Martin	Martin State Forest
1800637	1800637	Martin	West Boggs Park
1800069	1800069B	Miami	Miami State Recreation Area
1800375	1800375D	Miami	Mississinewa Reservoir
1800413	1800413H	Miami	Miami State Recreation Area (Mississinewa)
1800449	1800449A	Miami	Miami State Recreation Area, Mississinewa Res
1800563	1800563	Miami	Mississinewa Reservoir - Miami SRA
1800026	1800026	Monroe	Fairfax Beach & State Recreation Area, Monroe Res
1800033	1800033	Monroe	Paynetown State Recreation Area, Monroe Reservoir
1800039	1800039	Monroe	Fairfax Beach & State Recreation Area, Monroe Res
1800084	1800084	Monroe	Moore+s Creek State Recreation Area, Monroe Reserv
1800118	1800118E	Monroe	Fairfax SRA
1800129	1800129	Monroe	Karst Farm Park