

APPENDIX F

Water Resources



Waters Report

US 6 at Muck Pocket, 0.84 Mile East of SR 51/I-80/94 Bridge Replacement

**Des. No.: 1900012, Asset ID#: (6)51-45-01943 B, NBI 018870
Lake County, Indiana**

Prepared for:

Indiana Department of Transportation
100 North Senate Avenue
Indianapolis, IN 46204

Prepared by:

Hanson Professional Services Inc.
6510 Telecom Drive, Suite 210
Indianapolis, IN 46278

Field Reconnaissance: May 17, June 14, and September 25, 2021
Prepared Date: February 28, 2022

1.0 Introduction

Hanson Professional Services Inc. (Hanson) was contracted by the Indiana Department of Transportation (INDOT) LaPorte District to perform a wetland delineation and waters investigation for the proposed bridge replacement on US 6, 0.84 mile east of SR 51/I-80/94 in Hobart Township, Lake County, Indiana ((6)51-45-01943 B, NBI 018870). The study area is located on the Portage United States Geological Survey (USGS) 7.5 Minute Quadrangle Map in Section 16, Township 36 North, Range 7 West. The central GPS point for the study area is latitude 41.571116°, longitude -87.239909°. The location and appropriate boundaries of the study area can be seen in the attached maps and photographs (see Figures 1 through 6-3).

Proposed work includes replacement of the existing structure, a cast-in-place concrete slab 16 span bridge, crossing over “Muck Pocket”, as designated in the INDOT bridge inspection reports and past plans for the bridge. This name is used to describe the wetland complex within the bend in Deep River. The existing bridge will be replaced with a cast-in-place concrete slab superstructure on pile bent substructure units. The roadway is currently experiencing overtopping during storms greater than a 10-year flood event. The roadway profile is anticipated to be raised to provide improvements to the hydraulic performance. The raised profile will result in a longer proposed bridged, extending the proposed structure to the north of the existing bridge limits. It will include raising the approach roadway between US 6/SR 51 bridge over Deep River ((6)51-45-01934 C, NBI 018880) and the bridge over Muck Pocket. Longer bridge spans will be provided to minimize the number of substructure units. The project is anticipated to also include new reinforced concrete bridge approaches, bridge railing, and guardrail. There are two uncatalogued small structures (Str.) south (Str. 1) and to the north of the bridge over Muck Pocket (Str. 2). Str. 1 will be a replacement in kind and Str. 2 will be removed. The function of Str. 2 will be replaced with the lengthening of the bridge over Muck Pocket. The need (or deficiency) for this project is due to the existing structure having longitudinal cracking with delamination, spalling, and exposed reinforced steel. There is major deterioration to the deck, super structure, and substructure of the bridge. Local rain events have shown that the structure is hydraulically insufficient. The purpose of this project is to provide a long lasting structurally and hydraulically sufficient crossing of US 6 over Muck Pocket. The length of the bridge over Muck pocket is 289 feet and the length of the study area is approximately 0.23 mile.

Hanson staff visited the site on May 17 and June 14, 2021, to conduct a wetland delineation and waters investigation. Additional investigation was conducted on September 25, 2021, to locate the Str. 2 north of the bridge over Muck Pocket. This wetland delineation was conducted in accordance with the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (U.S. Army Corps of Engineers, 2012).

2.0 Desktop Reconnaissance

Data from the USGS 7.5 minute quadrangle maps (2019), the U.S. Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) *Web Soil Survey* (2019), the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) (USDOI - FWS, 2014), the Indiana Department of Natural Resources – Division of Water (IDNR-DOW) Best Available floodplain dataset (2021), and the USGS National Geospatial Program (2020) National Hydrography Dataset (NHD) were used to provide an indication of areas where waters and wetlands potentially occur.

2.1 USGS Quadrangle Map

The study area is located on the Portage USGS 7.5 Minute Quadrangle Map in Section 16, Township 36 North, Range 7 West. The topographic map depicts one permanent river associated with Deep River, a perennial lake/pond, and a marsh/swamp within the study area. Two wooded marsh/swamps are depicted adjacent to the east and west sides of the study area (see Figure 2).

2.2 National Wetlands Inventory

The NWI was reviewed for the study area. There are two NWI wetlands mapped within the study area. The NWI wetlands are classified as Riverine, Intermittent, Streambed, Seasonally Flooded (R4SBC) and Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded (PFO1C) under the Cowardin Classification System. One NWI wetland polygon is adjacent to the study area. The adjacent NWI wetland is classified as PFO1C (Wetland Subcommittee, 2013).

2.3 Soils

The USDA - NRCS *Web Soil Survey* is generated from USDA-NRCS certified data for Lake County, Indiana. According to the Soil Survey Geographic (SSURGO) Database for Lake County, Indiana, the study area contains soils with nationally listed hydric soils (see Table 1 and Figure 3).

Table 1: Soils

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soils Category	SSURGO Hydric Rating
Plainfield fine sand	PIB	None	Excessively Drained	Predominantly Non-Hydric	10% Hydric
Water	W	N/A	N/A	N/A	N/A
Walkkill silt loam	Wa	Frequent	Very Poorly Drained	Hydric	100% Hydric

2.4 Floodways and Floodplains

The IDNR-DOW Best Available floodplain dataset was reviewed for the study area. The study area is located in a regulatory floodway (Zone AE) (see Figure 4).

2.5 12-Digit Hydrologic Unit Code

The USGS 12-Digit Hydrologic Unit Code (HUC) (Indiana Geological Survey, 2011) mapping was reviewed for the study area. The study area is located entirely within the limits of the Little Calumet River - Deep River Subwatershed 12-Digit HUC (040400010508).

2.6 National Hydrography Dataset Flowlines

One NHD flowline runs through the study area. The flowline is associated with Deep River and is classified as an artificial path with no attributes (See Figure 3).

3.0 Field Reconnaissance

A field reconnaissance was conducted on May 17 and June 14, 2021, by Hanson personnel to determine and identify jurisdictional wetlands and Waters of the United States (WOTUS) or Waters of the State within the study area. The study area includes the existing US 6 corridor and adjacent land ranging from approximately 75 to 140 feet west and 58 to 108 feet east of the centerline of US

6. The study area was determined by applying a 20-foot buffer around the existing right-of-way (ROW) and proposed ROW. A 20-foot buffer was used due to uncertainty of the project limits at the time of field investigation. After the site visit on June 14, 2021, the border of the initial study area was extended to the western and northern bank of Deep River to collect information on the ordinary high-water mark (OHWM). Collector for ArcGIS installed on an iPad equipped with a Bad Elf GPS receiver was used to collect data points and photographs throughout the study area. See Figures 5 through 6-3 for collected data and selected photo locations.

An additional investigation was conducted on September 25, 2021, to locate Str. 2 north of the bridge over Muck Pocket (see Photos 10, 55, 56). The location of the structure inlet and outlet was not located. An area of riprap was located northwest of the bridge over Muck Pocket. It is presumed that this is the structure outlet covered by riprap. The area where the inlet of the structure would be located was covered by dense vegetation. Due to the dense vegetation, the inlet of the structure was not located.

3.1 Stream Features

One stream was identified during the field investigation. The stream, Deep River, has a defined bed and bank and is an USGS-mapped solid (perennial) blue-line river that connects to Little Calumet River, a traditionally navigable waterway (TNW), 2.69 miles west of the study area. Deep River runs from east to west on the north side of the study area and then bends to run from north to south along the west side of the bridge over Muck Pocket through the study area. The study area includes the entire width of Deep River. However, only the eastern and southern banks will be impacted by the proposed work (see Figures 5 through 5-2).

At the time of the investigation, flow was observed in the stream channel. The OHWM was measured outside the influence of the structure at longitude 41.571348°, latitude -87.239948°, approximately 26 feet west of Str. 2. The OHWM depth was 6 feet, and the OHWM width ranged from 95 to 160 feet. The quality of the stream was classified as poor. The water level was low due to drought conditions revealing trash and large items in the river. The water was turbid and there was no visibility to the bed of the stream. The substrate of the stream was silt. The stream feature had a small amount of canopy cover towards the northernmost and southernmost ends of the study area.

The NHD line representing Deep River is classified as an artificial path. Artificial paths are typically used to represent centerlines through open water bodies to facilitate hydrologic modeling. Deep River would be better represented as a stream/river NHD line due to flowing water and the defined bed and bank. At the time of the May 17, 2021, field investigation, Lake County had been in drought conditions classified as “Moderate Drought” from April 27 to May 4, 2021, and “Abnormally Dry” from May 5 to May 17, 2021 (NOAA - NWS, 2020). Deep River had flowing water during the drought conditions that was approximately three feet deep. Due to this observation, classification of Deep River as a perennial river on the USGS quadrangle map is valid.

Approximately 861 linear feet of stream is within the study area (see Table 2, Figures 5 through 5-2). The portion of Deep River flowing east to west is 164 linear feet and the portion flowing north to south is 697 linear feet. The total linear feet within the study area is 861 feet. Based on USGS StreamStats V 4.6.2 (2022), Deep River has an upstream drainage area of 148.15 square miles. Because of its defined bed and bank and connection

to downstream waters, Deep River would likely be considered a jurisdictional WOTUS by the USACE.

Table 2: Stream Summary Table

Name	Photos	Lat/Long	Linear Feet	OHWL Width	OHWL Depth	USGS Blue Line?	Riffles? Pools?	Quality	Substrate	Likely WOTUS?
Deep River	6-8, 25, 44, 49, 50, 52, 53, 58	41.571348°, -87.239948°	861 ft.	160 feet	6 feet	Yes	No	Poor	Silt	Yes

3.2 Wetlands

The study area was surveyed for wetlands using the methods in *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (U.S. Army Corps of Engineers, 2012). Under the delineation procedures in this manual, an area must exhibit characteristic hydrophytic vegetation, hydric soils, and wetland hydrology to be considered a wetland. If a field investigation determines that any of the three parameters are not satisfied, the area usually does not qualify as a wetland. Supporting materials used for this survey were plant lists (USACE NRCS, 2018), plant photo identification apps (Glory Global Group Ltd., 2020), field indicators of hydric soils (Vasilas, Hurt, and Noble, 2010), and data gathered from the desktop reconnaissance.

Five potential wetland sites were investigated during the field visit. All wetlands identified would be classified as Class III wetlands due to the presence of suitable habitat for a rare, threatened, or endangered species within 0.5 mile radius of the study area and the use of the habitat for any stage of its life cycle. The PFO1C wetland on the western bank of the study area was not investigated due to there being no potential impacts to the western bank of Deep River. See Tables 3 and 4 for a summary of the data points and wetlands, respectively.

Wetland A

Wetland A is a depressional feature on the east side of US 6. Wetland A is an emergent wetland that would likely be considered a jurisdictional WOTUS by the USACE due to seasonal flooding from Deep River, which connects to the Little Calumet River, a TNW. Wetland A is considered average quality because of moderate diversity of native species and the hydrologic function it serves the landscape. The area of the wetland was determined by following the tow of slope and change in vegetation. The size of the delineated Wetland A is 0.193 acre.

Data Point 1 (DP-1) – Wetland

DP-1 is located on the east side of US 6 approximately 10 feet east of the bridge over Muck Pocket (see Data Form DP-1, Photos 26 and 27). DP-1 represents a vegetated depression. The vegetation was dominated by reed canary grass (*Phalaris arundinacea*, FACW) and garden yellow-rocket (*Barbarea vulgaris*, FAC). The dominance test determined there was a presence of hydrophytic vegetation. Hydric soil was present due to the hydric soil indicator of a depleted matrix (F3). Hydrologic conditions were present due to the primary wetland hydrology indicators of sediment deposits (B2) and drift deposits (B3). Secondary wetland hydrology indicators present were geomorphic

position (D2) and FAC-Neutral test (D5). Due to the presence of hydrophytic vegetation, hydric soil, and wetland hydrology, DP-1 is considered a wetland point.

Data Point 2 (DP-2) - Upland

DP-2 is located on the east side of US 6 at the northeast corner of the bridge over Muck Pocket (see Data Form DP-2, Photos 28 and 29). DP-2 represents a vegetated convex area along the side of the road. Vegetation was dominated by orchard grass (*Dactylis glomerata*) and reed canary grass (*Phalaris arundinacea*). The dominance test determined there was a lack of hydrophytic vegetation. Hydric soil and wetland hydrology indicators were not present. Due to lack of hydrophytic vegetation, hydric soil, and wetland hydrology, DP-2 is not considered a wetland point.

Wetland B

Wetland B is a depressional feature on the east side of US 6. Wetland B is an emergent wetland that would likely be considered a jurisdictional WOTUS by the USACE due to seasonal flooding from Deep River, which connects to the Little Calumet River, a TNW. Wetland B is considered average quality because of the presence of native and non-native dominant species and the hydrologic function it serves the landscape. The area of the wetland was determined by following the elevation of the tow of slope along the depression, change in vegetation, and open water to the east. The size of the delineated Wetland B is 0.065 acre.

Data Point 3 (DP-3) – Wetland

DP-3 is located east of US 6, approximately 230 feet northeast of the bridge over Muck Pocket (see Data Form DP-3, Photos 30 and 31). DP-3 represents a vegetated depression with saturated soil. The vegetation was dominated by reed canary grass (*Phalaris arundinacea*). The rapid test for hydrophytic vegetation determined there was a presence of hydrophytic vegetation. At the second site visit on June 14, 2021, more plant species were observed since it was later in the growing season but were not documented on a data sheet. These species included broadleaf cattail (*Typha angustifolia*) and broadleaf arrowhead (*Sagittaria latifolia*). Hydric soil was present due to the hydric soil indicator of depleted below a dark surface (A11). Hydrologic conditions were present due to wetland hydrology indicators of a high water table (A2) and saturation (A3). Due to the presence of hydrophytic vegetation, hydric soil, and wetland hydrology, DP-3 is considered a wetland point.

Data Point 4 (DP-4) – Upland

DP-4 is located approximately 236 feet north of the bridge over Muck Pocket, approximately 13 feet from the edge of pavement of US 6 (see Data Form DP-4, Photos 32 and 33). DP-4 represents a vegetated convex roadside. Vegetation was dominated by reed canary grass (*Phalaris arundinacea*) and boxelder (*Acer negundo*). The dominance test determined there was a presence of hydrophytic vegetation. Hydric soil indicators were not present. One secondary wetland hydrology indicator of FAC-Neutral test (D5) was present. Due to lack of hydric soil and wetland hydrology, DP-4 is not considered a wetland point.

Wetland C

Wetland C is a depressional feature on the west side of US 6 between roadway and the adjacent Deep River. Wetland C is an emergent/shrub scrub wetland that would likely be considered a jurisdictional WOTUS by the USACE due to adjacency to Deep River, which

connects to the Little Calumet River, a TNW. Wetland C is considered average quality because of the native and non-native dominant species and the hydrologic function it serves the landscape. The area of the wetland was determined by following the elevation of the tow of slope along the depression, change in vegetation, and the bank of Deep River to the west. The size of the delineated Wetland C is 0.288 acre.

Data Point 5 (DP-5) – Wetland

DP-5 is located west of US 6, approximately 52 feet northwest of the bridge over Muck Pocket (see Data Form DP-5, Photos 34 and 35). DP-5 represents a vegetated depression along the floodplain of Deep River. The vegetation was dominated by reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), and green-head coneflower (*Rudbeckia laciniata*). The dominance test determined there was a presence of hydrophytic vegetation. Hydric soil was present due to the problematic hydric soil indicator of fluvial deposits in a flood plain. DP-5 is located within the floodplain of Deep River, approximately 21 feet from the OHWM. At 24 to 25 inches of the soil profile, there is a reduced matrix. Since DP-5 is within a vegetated bar in a fluvial setting with redox features between layers, it was determined that hydric soils were present. Hydrologic conditions were present due to primary wetland hydrology indicators of water marks (B1), sediment deposits (B2), and drift deposits (B3). Secondary wetland hydrology indicators present are geomorphic position (D2) and FAC-Neutral test (D5) Due to the presence of hydrophytic vegetation, hydric soil, and wetland hydrology, DP-5 is considered a wetland point.

Data Point 6 (DP-6) – Upland

DP-6 is located on the east side of US 6 at the northeast corner of the bridge over Muck Pocket (see Data Form DP-6, 36 and 37). DP-6 represents a vegetated convex roadside. Vegetation was dominated by reed canary grass (*Phalaris arundinacea*). The dominance test determined there was a presence of hydrophytic vegetation. Hydric soil indicators were not present. One secondary wetland hydrology indicator of FAC-Neutral test (D5) was present. Due to lack of hydric soil and wetland hydrology, DP-6 is not considered a wetland point.

Wetland D

Wetland D is a depressional feature on the east side of US 6. Wetland D is a forested wetland that would likely be considered a jurisdictional WOTUS by the USACE due to seasonal flooding from Deep River, which connects to the Little Calumet River, a TNW. Wetland D is considered excellent quality because of the diversity of plant species, canopy cover, hydrologic function it serves the landscape, and quality habitat for a state endangered species. The area of the wetland was determined by following the tow of slope along the depression, change in vegetation, and open water to the north. The size of the delineated Wetland D is 0.017 acre.

Data Point 7 (DP-7) – Wetland

DP-7 is located east of US 6, approximately 88 feet northeast of the bridge over Muck Pocket (see Data Form DP-7, Photos 38 and 39). DP-7 represents a vegetated depression with trees and shrubs. Vegetation was dominated by eastern cottonwood (*Populus deltoides*), white mulberry (*Morus alba*), reed canary grass (*Phalaris arundinacea*), and common reed (*Phragmites australis*). The dominance test determined there was a presence of hydrophytic vegetation. Hydric soil was present due to the hydric soil indicator of depleted below a dark surface (A11). Hydrologic conditions were

present due to the primary wetland hydrology indicators of surface water (A1), high water table (A2), and saturation (A3). Secondary wetland hydrology indicators present were geomorphic position (D2) and FAC-Neutral test (D5). Due to the presence of hydrophytic vegetation, hydric soil, and wetland hydrology, DP-7 is considered a wetland point.

Data Point 8 (DP-8) – Upland

DP-8 is located approximately 46 feet east of US 6 (see Data Form DP-8, Photos 40 to 41). DP-8 represents a convex forested area. Vegetation was dominated by boxelder (*Acer negundo*), eastern cottonwood (*Populus deltoides*), Japanese honeysuckle (*Lonicera japonica*), Virginia creeper (*Parthenocissus quinquefolia*), and common burdock (*Articum minus*). The dominance test determined there was a lack of hydrophytic vegetation. Wetland hydrology was present due to water marks (B1). Hydric soil was not present. Due to the lack of hydrophytic vegetation and hydric soil, DP-8 is not considered a wetland point.

Wetland E

Wetland E is a depressional feature east of US 6, approximately 260 feet northeast of the bridge structure. Wetland E is a forested/shrub scrub wetland that would likely be considered a jurisdictional WOTUS by the USACE due to seasonal flooding from Deep River, which connects to the Little Calumet River, a TNW. Wetland E is considered excellent quality because of the diversity of plant species, canopy cover, hydrologic function it serves the landscape, and quality habitat for a state endangered species. The area of the wetland was determined by following the tow of slope along the depression, change in vegetation, and open water to the south. The size of the delineated Wetland E is 0.060 acre.

Data Point 9 (DP-9) – Wetland

DP-9 is located east of US 6, approximately 236 feet northeast of the bridge over Muck Pocket (see Data Form DP-9, Photos 42 and 43). DP-9 represents a vegetated depression with trees and shrubs. Vegetation was dominated by green ash (*Fraxinus pennsylvanica*), boxelder (*Acer negundo*), silver maple (*Acer saccharinum*), buttonbush (*Cephalanthus occidentalis*), marsh marigold (*Calthus palustris*), and reed canary grass (*Phalaris arundinacea*). The dominance test determined there was a presence of hydrophytic vegetation. Hydric soil was present due to the hydric soil indicator of depleted matrix (F3). Hydrologic conditions were present due to the wetland hydrology indicator of a high water table (A2), and saturation (A3). Due to the presence of hydrophytic vegetation, hydric soil, and wetland hydrology, DP-9 is considered a wetland point.

Data Point 4 (DP-4) – Upland

See DP-4 under Wetland B for details about this upland sample point (see Data Form DP-4, Photos 32 and 33).

Table 3: Data Point Summary Table

Data Point	Associated Wetland	Lat/Long	Vegetation	Soils	Hydrology	Wetland
1	Wetland A	41.570804°, -87.239576°	Yes	Yes	Yes	Yes
2	Wetland A	41.571042°, -87.239537°	No	No	No	No
3	Wetland B	41.571755°, -87.239508°	Yes	Yes	Yes	Yes
4	Wetland B and E	41.571700°, -87.239582°	Yes	No	No	No
5	Wetland C	41.571147°, -87.239933°	Yes	Yes	Yes	Yes
6	Wetland C	41.571292°, -87.239768°	Yes	No	No	No
7	Wetland D	41.571258°, -87.239420°	Yes	Yes	Yes	Yes
8	Wetland D	41.570745°, -87.239428°	No	No	Yes	No
9	Wetland E	41.571690°, -87.239277°	Yes	Yes	Yes	Yes

Table 4: Wetland Summary Table

Wetland Name	Photos	Lat/Long	Type	Total Area (acres)	Quality	Likely Water of the U.S.?
Wetland A	1, 3, 4, 17, 26, 57	41.570840°, -87.239519°	PEM1C	0.193 acre	Average	Yes
Wetland B	14, 18, 30, 56, 57	41.571707°, -87.239479°	PEM1C	0.065 acre	Average	Yes
Wetland C	6, 19-21, 34, 53, 54, 58	41.571018°, -87.239873°	PEM1C/ PSS1C	0.288 acre	Average	Yes
Wetland D	22, 23, 38, 57	41.571222°, -87.239382°	PFO1C	0.017 acre	Excellent	Yes
Wetland E	13, 14, 24, 42, 57	41.571763°, -87.239338°	PFO1C/ PSS1C	0.060 acre	Excellent	Yes

3.3 Ditch Features

Three roadside ditches (RSDs) were observed throughout the study area (see Table 5 and Figures 5 through 5-2). RSD 1 was observed south of the bridge and drains north to the inlet of the small structure. RSD 2 is at the north end of the bridge over Muck Pocket on the west side of the structure. RSD 2 flows west and drains runoff from US 6 to Deep River. RSD 3 is at the north end of the study area on the west side of the bridge over Deep River. RSD 3 flows north and drains runoff from US 6 to Deep River. The RSDs lacked an OHWM and did not have a defined bed and bank; therefore, they would likely be considered non-jurisdictional by the USACE.

Table 5: Ditch Summary Table

Name	Photos	Description	Length	Flow Direction	Flow Observed
RSD 1	48	Vegetated	27 feet	North	No
RSD 2	9	Riprap	19 feet	West	No
RSD 3	51	Gravel and riprap	48 feet	North	No

3.4 Open Water

Two areas of open water were identified during the field investigation (see Table 6 and Figures 5 through 5-2).

Open Water 1

At the time of the investigation, there was open water present 84 feet northeast of the bridge structure, designated as Open Water 1. Open Water 1 would likely be considered a jurisdictional WOTUS by the USACE due to seasonal flooding from Deep River, which connects to the Little Calumet River, a TNW. Open Water 1 was surrounded by trees, tall vegetation, and shrubs. Vegetation observed along the boundaries with Wetlands A, B, D and E included reed canary grass (*Phalaris arundinacea*), common reed (*Phragmites australis*), broadleaf arrowhead (*Sagittaria latifolia*), and pale yellow iris (*Iris pseudacorus*). The water contained algae and fallen trees. The quality was considered excellent due to the diversity of plant species, hydrologic function within the landscape, and quality habitat for a state endangered species. Open Water 1 would be classified as Palustrine, Aquatic Bed – Floating Vascular/Unconsolidated Bottom, Semipermanently Flooded (PAB4/UBF) under the Cowardin Classification System. The delineated acreage of Open Water 1 is 0.172 acre.

Open Water 2

At the time of investigation, Lake County had been in drought conditions classified as “Moderate Drought” from April 27 to May 4, 2021, and “Abnormally Dry” from May 5 to May 17, 2021 (NOAA -NWS, 2020). Due to these conditions and water marks on the spans, it was determined that the area under the bridge would have standing water under normal conditions. This area is classified as open water, designated as Open Water 2. Open Water 2 would likely be considered a jurisdictional WOTUS by the USACE due to its significant nexus to Deep River, which connects to the Little Calumet River, a TNW. The area under the bridge had pools of standing water and saturated soil. No vegetation was present under the bridge. The area of Open Water 2 was determined by the lack of vegetation and the spans of the bridge. The quality was considered poor due to the lack of vegetation and silty substrate. Open Water 2 would be classified as Palustrine, Unconsolidated Bottom, Mud, Intermittently Exposed (PUB3G) under the Cowardin Classification System (Wetlands Subcommittee, 2013). The delineated acreage of Open Water 2 is 0.141 acre.

Table 6: Open Water Summary Table

Name	Photos	Lat/Long	Total Area (acres)	Quality	Likely Water of the U.S.?
Open Water 1	11-14, 18, 24, 57	41.571477°, -87.239409°	0.172 acre	Excellent	Yes
Open Water 2	15, 16	41.570710°, -87.239702°	0.141 acre	Poor	Yes

4.0 Conclusions

Field observations revealed that the study area contained one perennial stream, five wetlands, and two open water sources. They were identified as Deep River, Wetlands A through E, Open Water 1, and Open Water 2. Three RSDs were observed but would likely be considered non-jurisdictional by the USACE. The waterways and wetlands are likely WOTUS that would fall under jurisdiction of the USACE. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of

jurisdictional waters is ultimately made by the USACE. This report is our best judgement on the guidelines set forth by the USACE.

5.0 Acknowledgement

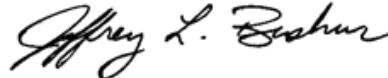
This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Determination Manual*, the appropriate regional supplement, the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

Payton Fischer



Environmental Specialist
Hanson Professional Services Inc.

Jeffrey Bushur



Environmental Assessment Discipline Manger
Hanson Professional Services Inc.

Tamra Reece



Environmental Scientist
Hanson Professional Services Inc.

6.0 Supporting Documentation

Maps:

- Figure 1 – Project Location Map
- Figure 2 – USGS Topographic Map
- Figure 3 – USGS NHD, NWI and Soil Survey Map
- Figure 4 – IDNR Floodplain Map
- Figures 5 to 5-2 – Field Identified Resource Maps
- Figures 6 to 6-3 – Photo Location Maps

StreamStats Report

Photos 1-57

Wetland Determination Forms

7.0 References

Environmental Laboratory. (1987). *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Corps of Engineers, Waterways Experiment Station.

Glory Global Group Ltd. (2020). PictureThis – Plant Identifier (3.3.1) [Mobile App] App Store. <https://apps.apple.com/us/app/picturethis-plant-identifier/id1252497129>

Indiana Department of Natural Resources, Division of Water. (2022). FloodHazard_BestAvai_DNR_Water. [Data file]. Retrieved from <https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/the-indiana-best-available-floodplain-mapping/>

- Indiana Geological Survey. (2011). WATERSHEDS_HUC12_2009_USDA_IN: Twelve-digit Subwatershed Boundaries for Indiana (United States Department of Agriculture, 1:24,000 Polygon Shapefile) [Data file]. Retrieved from https://maps.indiana.edu/previewMaps/Hydrology/Watersheds_HUC12_2009.html
- National Oceanic and Atmospheric Administration – National Weather Service (NOAA-NWS). (n.d.). Climate Prediction Center. Retrieved June 1, 2021 from <https://www.cpc.ncep.noaa.gov/products/Drought/>
- U.S. Army Corps of Engineers (USACE). (May 30, 2007). *US Army Corp of Engineers Jurisdictional Determination Form Instructional Guidebook*. Retrieved May 20, 2021 from <https://usace.contentdm.oclc.org/utis/getfile/collection/p16021coll11/id/2310>
- U.S. Army Corps of Engineers (USACE). (2012). *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)*. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Corps of Engineers, Engineer Research and Development Center.
- U.S. Army Corps of Engineers (USACE). (2018). *NWPL – National Wetland Plant List*. Retrieved May 18, 2021 from http://wetland-plants.usace.army.mil/nwpl_static/index.html
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). (2019, July 31). Web Soil Survey. Retrieved May 6, 2021 from <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- U.S. Geological Survey (USGS). (n.d.). Stream Stats V 4.6.2. Retrieved February 15, 2022, from <https://streamstats.usgs.gov/ss/>
- U.S. Geological Survey (USGS). (2019). topoView Portage quadrangle, Lake County, Indiana. Retrieved May 28, 2021 from <https://ngmdb.usgs.gov/topoview/>
- U.S. Geological Survey (USGS), National Geospatial Program. (2020). NHD 20200615 for Indiana State or Territory FileGDB 10.1 Model Version 2.2.1 [Data set]. U.S. Geological Survey. Retrieved from <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products>
- U.S. Department of the Interior – Fish and Wildlife Service (USDOI-FWS). (2014). WETLANDS_NWI_USFWS_IN: Wetlands and Deepwater Habitats of the National Wetlands Inventory (NWI) for Indiana (U.S. Fish & Wildlife Service, Polygon Shapefile) [Data set]. Indiana Geological Survey. Retrieved from https://maps.indiana.edu/previewMaps/Hydrology/Wetlands_NWI.html
- Vasilas, L. M., Hurt, G. W., & Noble, C. V. (2010). Field indicators of hydric soils in the United States. *United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with the National Technical Committee for Hydric Soils, Washington, DC.*
- Wetlands Subcommittee (2013). Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Federal Geographic Data Committee, Reston, VA.



Source: Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS, Woodport Inc.

Figure 1 Project Location

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

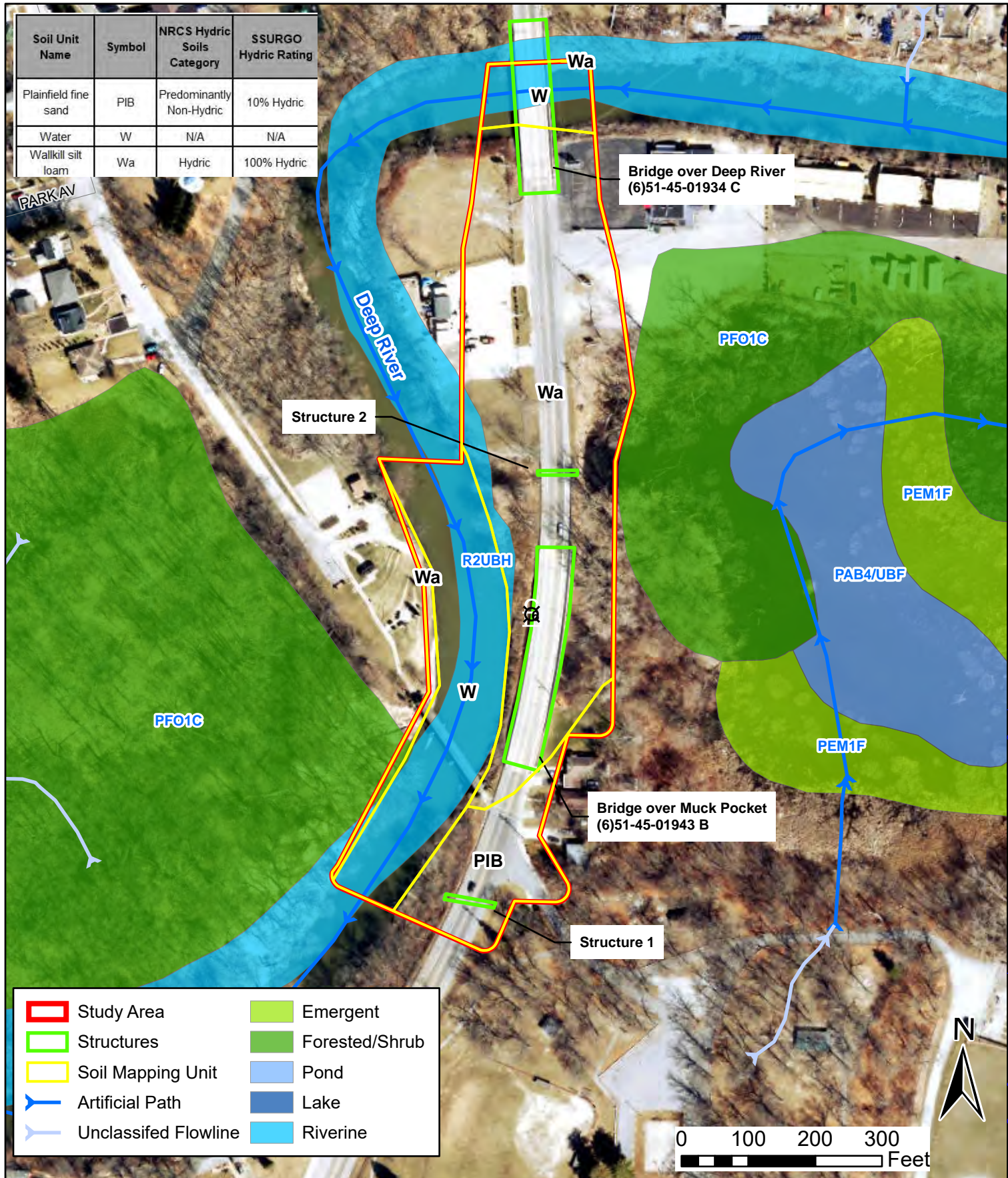
Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204




Des. No. 1900012

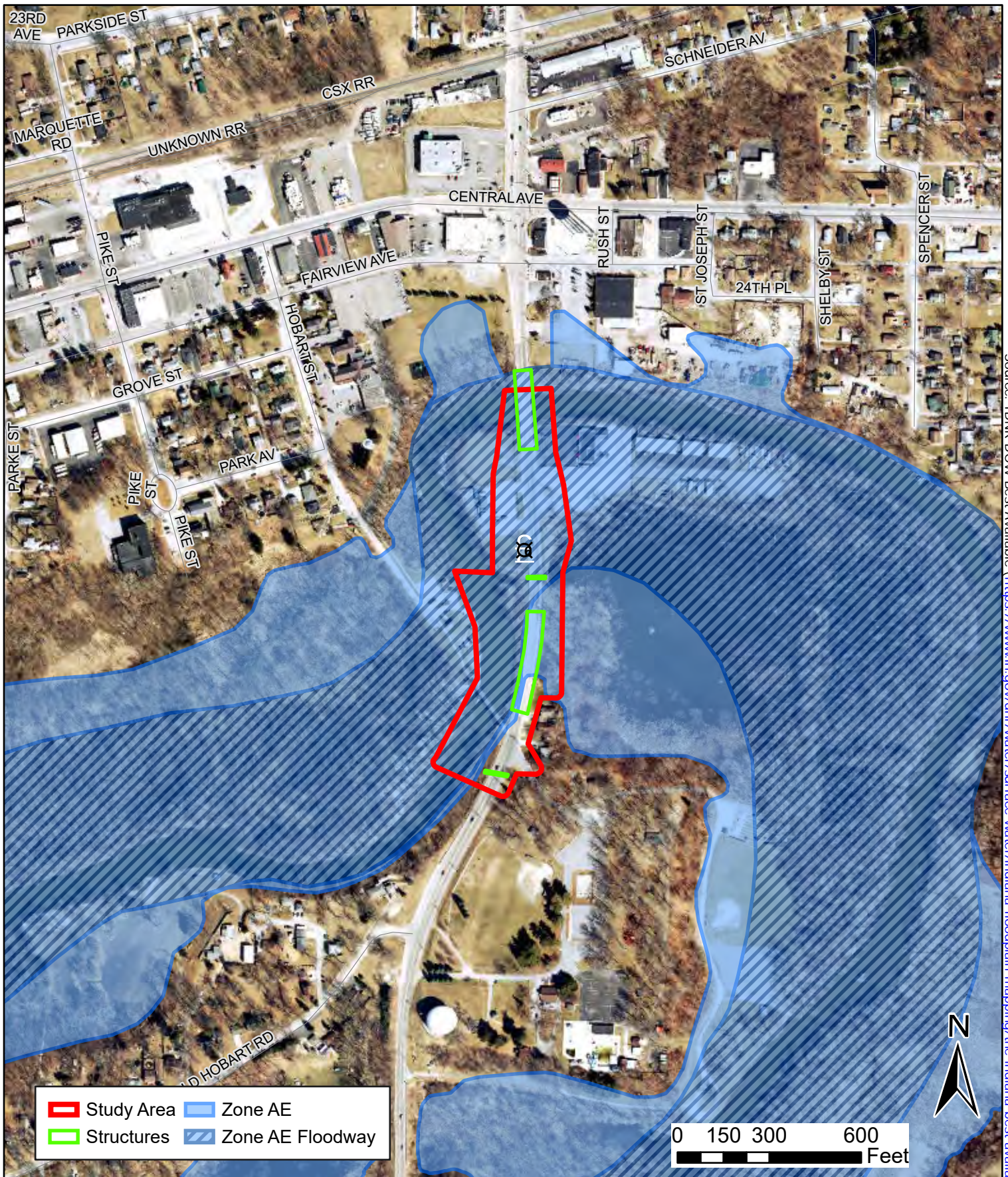
Created: 2/16/2022

Soil Unit Name	Symbol	NRCS Hydric Soils Category	SSURGO Hydric Rating
Plainfield fine sand	PIB	Predominantly Non-Hydric	10% Hydric
Water	W	N/A	N/A
Walkkill silt loam	Wa	Hydric	100% Hydric



Source: Indiana Map (www.indianamap.org), USGS - NRCS Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>)

 HANSON Hanson Professional Services Inc.	Figure 3 NHD, NWI, and Soil Survey	Indiana Department of Transportation 100 North Senate Avenue Indianapolis, IN 46204
	Waters Report US 6 Bridge Project at Muck Pocket Lake County, Indiana	
	Des. No. 1900012 Created: 2/16/2022	



Source: IDNR-DOW Best Available (<https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/the-indiana-best-available-floodplain-mapping/>)

Figure 4 IDNR Floodplain Map

Waters Report

US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Des. No. 1900012

Created: 2/25/2022

**Indiana Department
 of Transportation**
 100 North Senate Avenue
 Indianapolis, IN 46204





Figure 5 Field Identified Resources Reference

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Des. No. 1900012

Created: 2/16/2022

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204

HANSON
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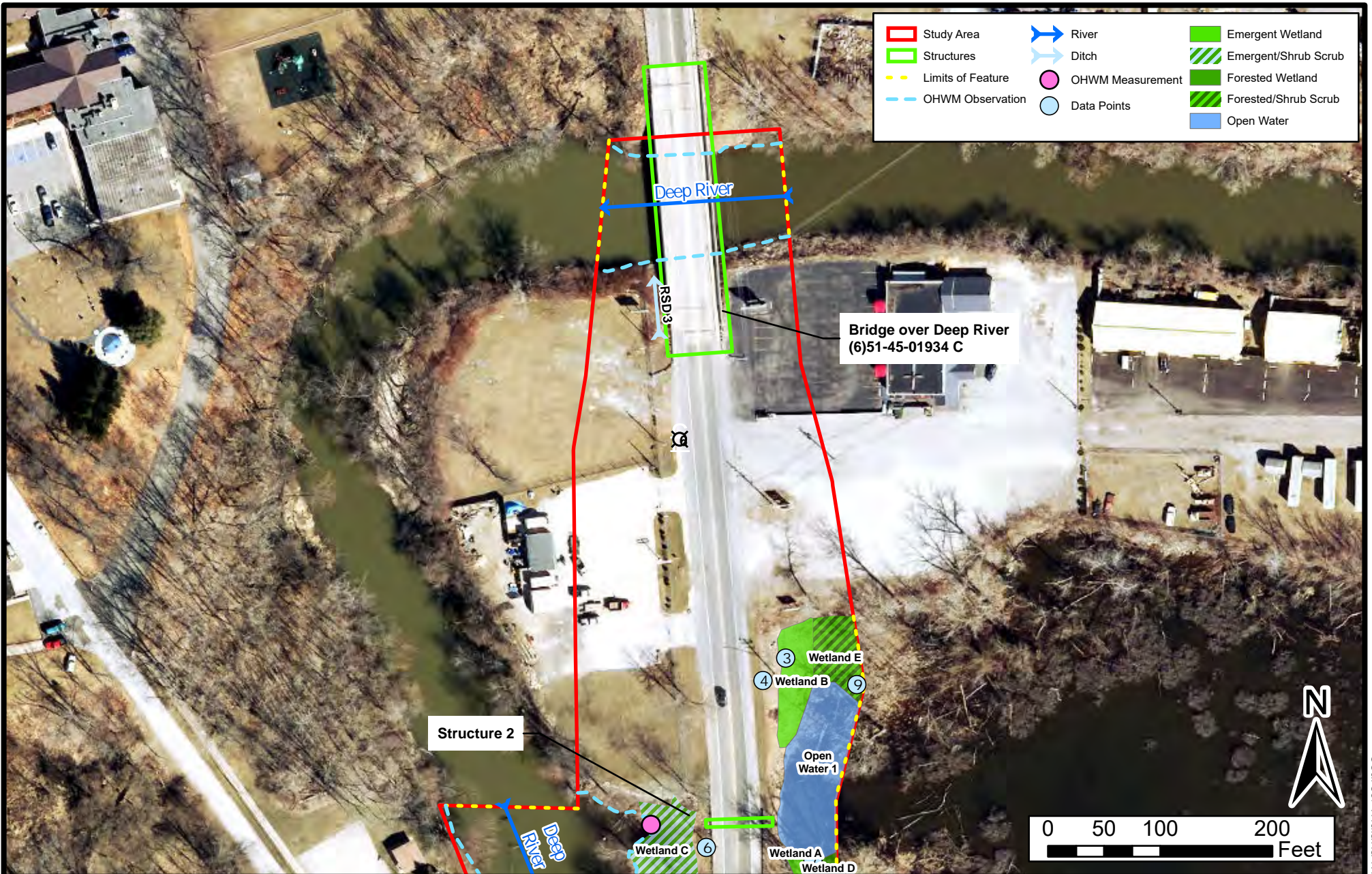


Figure 5-1 Field Identified Resources

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204

 **HANSON**
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Des. No. 1900012

Created: 2/16/2022

Source: Indiana Map (www.indianamap.org)

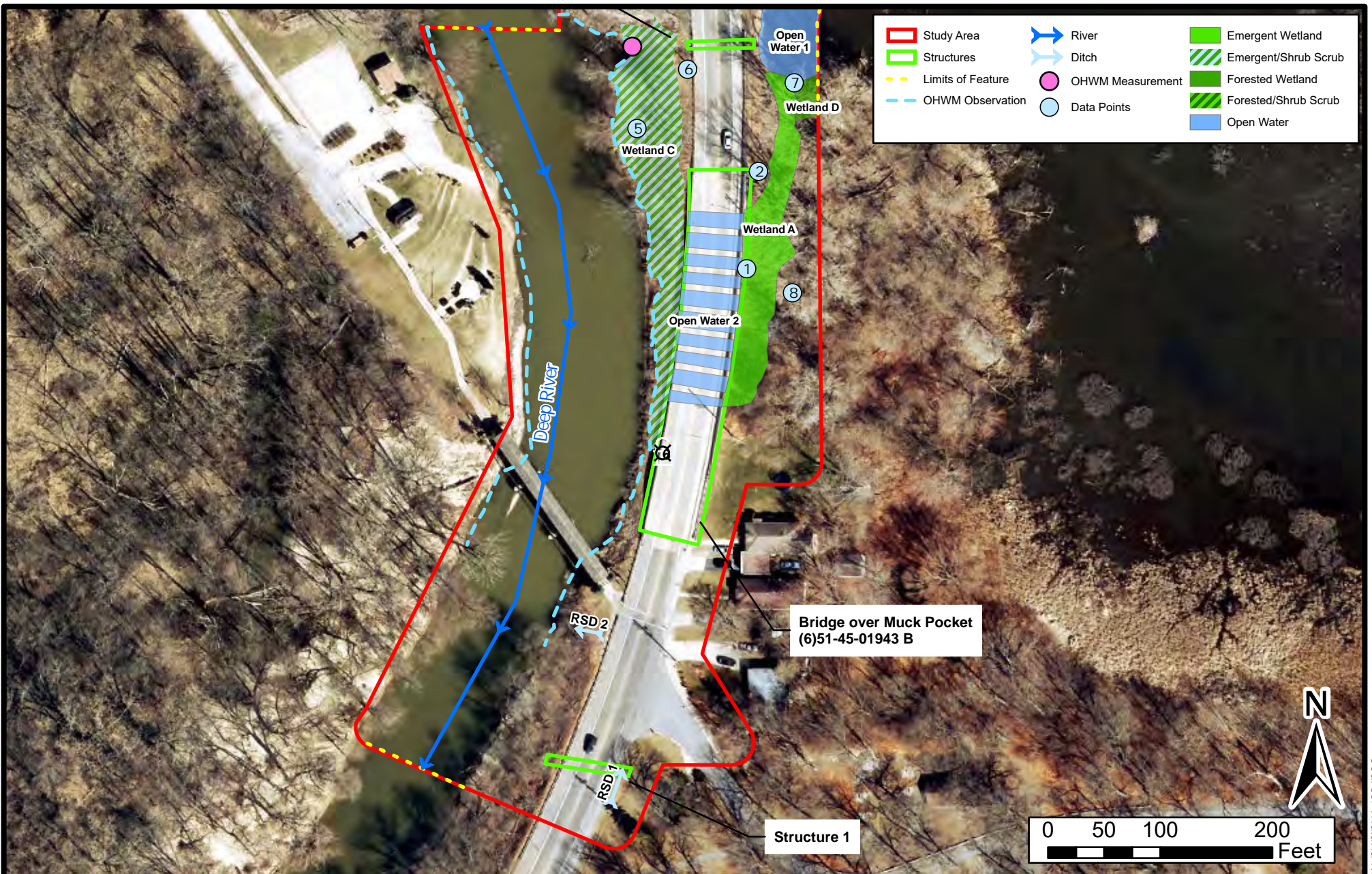


Figure 5-2 Field Identified Resources

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Des. No. 1900012

Created: 2/16/2022

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204





Figure 6 Photo Location Reference

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Des. No. 1900012

Created: 2/16/2022

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204



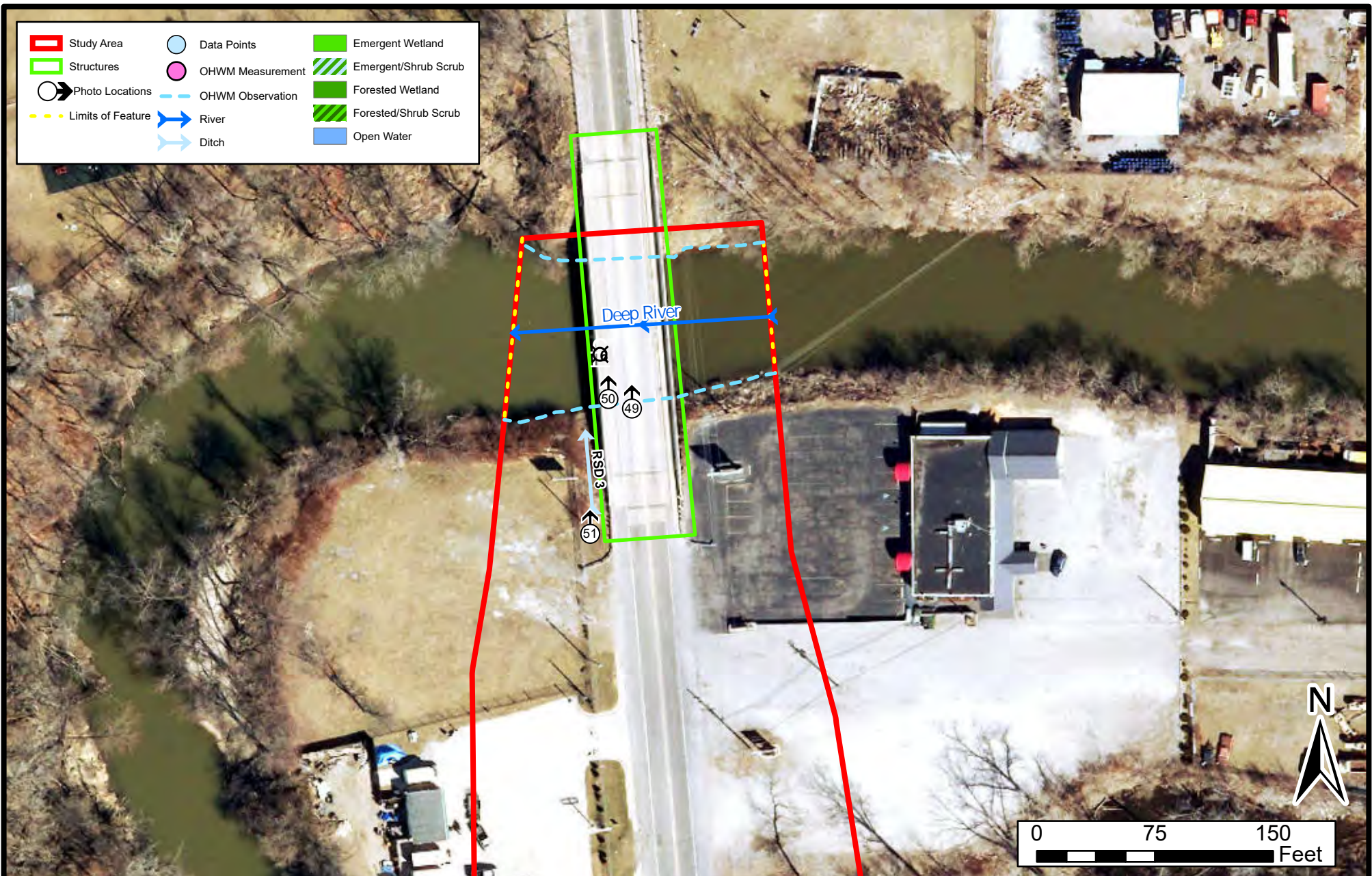


Figure 6-1 Photo Locations

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204

 **HANSON**
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Des. No. 1900012

Created: 2/25/2022

Source: Indiana Map (www.indianamap.org)

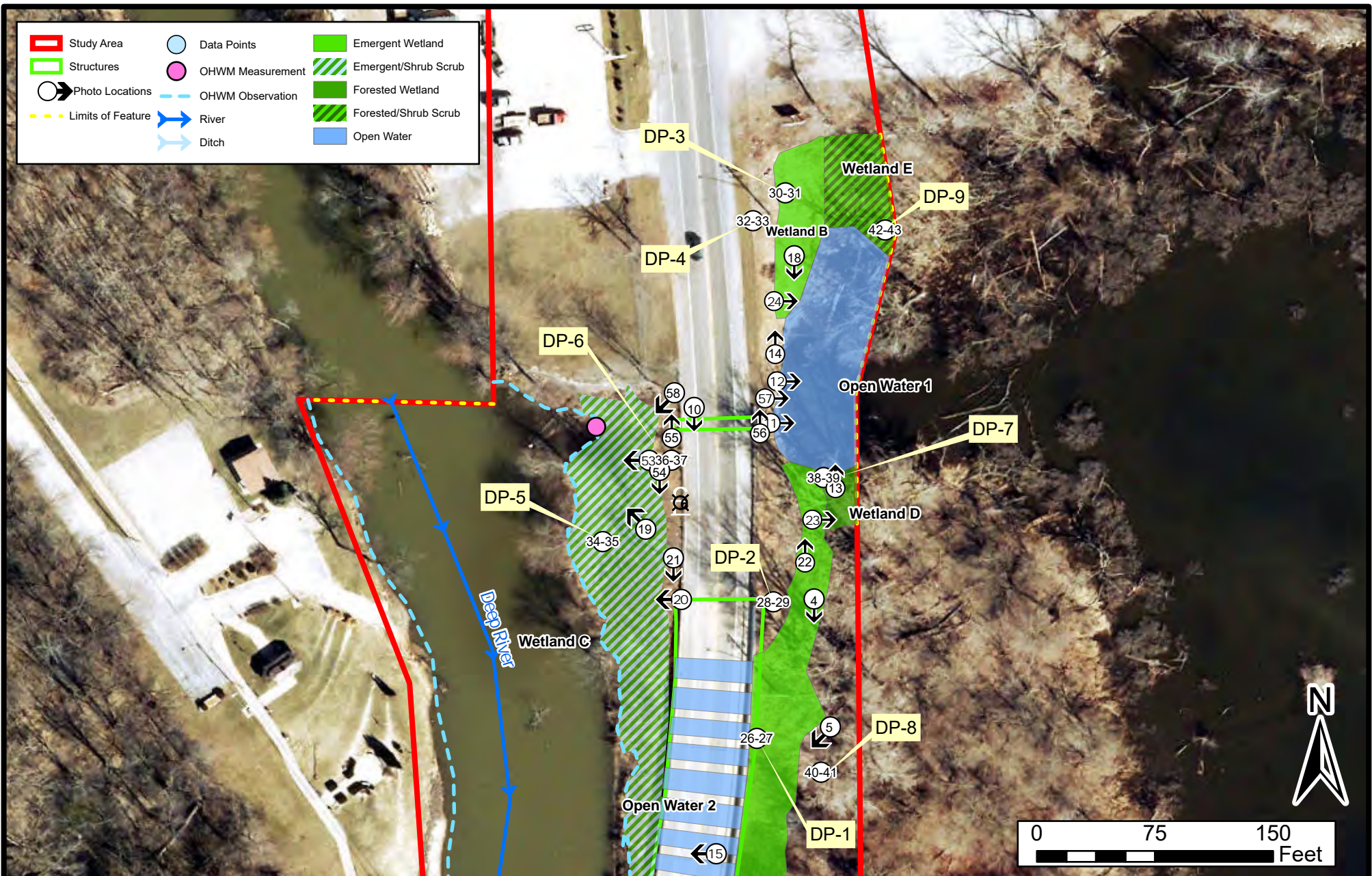


Figure 6-2 Photo Locations

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204



Des. No. 1900012

Created: 2/25/2022

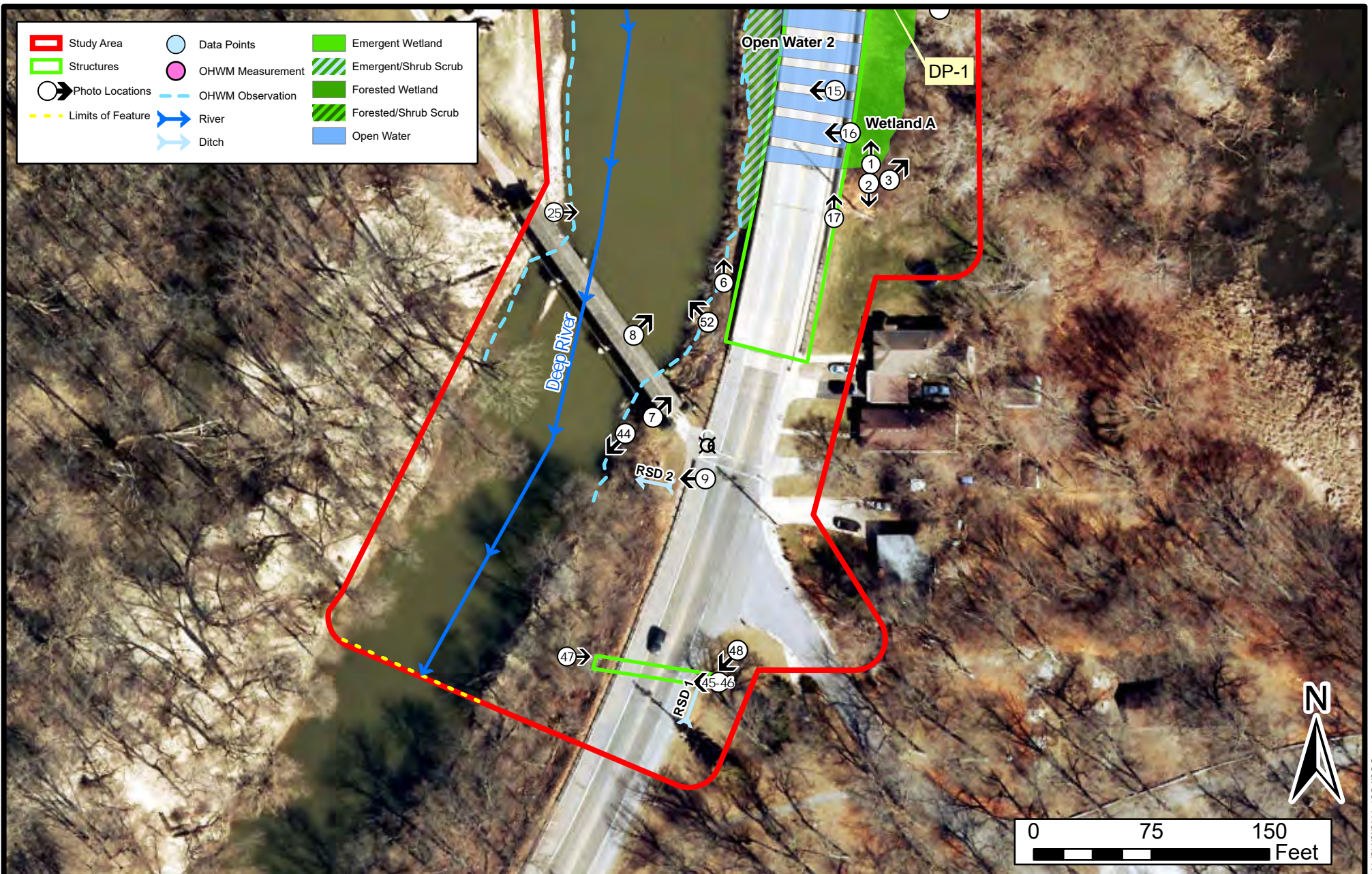


Figure 6-3 Photo Locations

Waters Report
 US 6 Bridge Project at Muck Pocket
 Lake County, Indiana

Indiana Department of Transportation
 100 North Senate Avenue
 Indianapolis, IN 46204

HANSON
 Hanson Professional Services Inc.

Des. No. 1900012

Created: 2/25/2022

StreamStats Report Us 6 Bridge Replacement at Muck Pocket, Des. 1900012

Region ID: IN
 Workspace ID: IN20220215195802966000
 Clicked Point (Latitude, Longitude): 41.56982, -87.24042
 Time: 2022-02-15 14:58:28 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	148.146	square miles

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.6.2

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2



Photo 1. East side of bridge over Muck Pocket ((6)51-45-01943 B) and Wetland A, viewing north, 5/17/2021



Photo 2. East side of bridge over Muck Pocket ((6)51-45-01943 B) and houses on south side, viewing south, 5/17/2021



Photo 3. Forested area and Wetland A east of bridge over Muck Pocket, viewing northeast, 5/17/2021



Photo 4. East side of bridge over Muck Pocket ((6)51-45-01943 B) with Wetland A, viewing south, 5/17/2021



Photo 5. Eastern side of the bridge over Muck Pocket ((6)51-45-01943 B), viewing southwest, 5/17/2021



Photo 6. West side of bridge over Muck Pocket ((6)51-45-01943 B) along Deep River with south end of Wetland C, viewing north, 5/17/2021



Photo 7. Bank of Deep River on west side of bridge over Muck Pocket ((6)51-45-01943 B), viewing northeast, 5/17/2021



Photo 8. West side of bridge over Muck Pocket ((6)51-45-01943 B) and US 6 from covered bridge, viewing northeast, 6/14/2021



Photo 9. RSD 2 on southwest side of the bridge over Muck Pocket, viewing west, 5/17/2021



Photo 10. Presumed location of Str. 2 outlet on northwest side of the bridge over Muck Pocket, viewing south, 5/17/2021



Photo 11. Open Water 1 east of bridge over Muck Pocket, viewing east, 5/17/2021



Photo 12. Open Water 1 east of bridge over Muck Pocket, viewing east, 5/17/2021



Photo 13. Open Water 1 facing Wetland E, viewing north, 6/14/2021



Photo 14. Open Water 1 and Wetlands B and E east of bridge over Muck Pocket, viewing north, 5/17/2021



Photo 15. Open Water 2 under bridge over Muck Pocket ((6)51-45-01943 B) with standing water, viewing west, 5/17/2021



Photo 16. Open Water 2 under bridge over Muck Pocket ((6)51-45-01943 B) with standing water, viewing west, 5/17/2021



Photo 17. Wetland A east of bridge over Muck Pocket ((6)51-45-01943 B), viewing north, 5/17/2021



Photo 18. Wetland B along Open Water 1, viewing south, 5/17/2021



Photo 19. Wetland C emergent area, viewing northwest, 5/17/2021



Photo 20. Wetland C shrub scrub area, viewing west, 5/17/2021



Photo 21. West side of bridge over Muck Pocket ((6)51-45-01943 B) and Wetland C, viewing south, 5/17/2021



Photo 22. Wetland D south of Open Water 1, viewing north, 5/17/2021



Photo 23. Wetland D vegetation, viewing east, 6/14/2021



Photo 24. Transition zone between Wetland E and Open Water 1, viewing east, 6/14/2021



Photo 25. Eastern bank of Deep River, viewing east, 6/14/2021



Photo 26. Wetland DP-1 reference for Wetland A, 5/17/2021



Photo 27. Wetland DP-1 soil profile for Wetland A, 5/17/2021



Photo 28. Upland DP-2 reference for Wetland A, 5/17/2021



Photo 29. Upland DP-2 soil profile for Wetland A, 5/17/2021



Photo 30. Wetland DP-3 reference for Wetland B, 5/17/2021



Photo 31. Wetland DP-3 soil profile for Wetland B with high water table, 5/17/2021



Photo 32. Upland DP-4 reference for Wetlands B and E, 6/14/2021



Photo 33. Upland DP-4 for Wetlands B and E, 6/14/2021



Photo 34. Wetland DP-5 reference for Wetland C, 5/17/2021



Photo 35. Wetland DP-5 soil profile for Wetland C, 5/17/2021



Photo 36. Upland DP-6 reference for Wetland C, 5/17/2021



Photo 37. Upland DP-6 soil profile for Wetland C, 5/17/2021



Photo 38. Wetland DP-7 reference for Wetland D, 6/14/2021



Photo 39. Wetland DP-7 soil profile for Wetland D, 6/14/2021



Photo 40. Upland DP-8 reference for Wetland D, 5/17/2021



Photo 41. Upland DP-8 soil profile for Wetland E, 5/17/2021



Photo 42. Wetland DP-9 reference for Wetland E, 6/14/2021



Photo 43. Wetland DP-9 soil profile for Wetland E, 6/14/2021



Photo 44. OWHM measurement along eastern bank of Deep River, viewing southwest, 5/17/2021



Photo 45. Inlet of Str. 1 south of bridge over Muck Pocket, viewing west, 6/14/2021



Photo 46. Viewing through inlet of Str. 1, viewing west, 6/14/2021



Photo 47. Outlet of Str. 1 west of US 6, viewing east, 6/14/2021



Photo 48. RSD 1 with Str. 1 south of bridge over Muck Pocket, viewing southwest, 5/17/2021



Photo 49. Below bridge over Deep River ((6)51-45-01934 C), viewing north, 6/14/2021



Photo 50. Below bridge over Deep River ((6)51-45-01934 C), viewing north, 6/14/2021



Photo 51. RSD 3 on west side of bridge over Deep River ((6)51-45-01934 C), viewing north, 5/17/2021



Photo 52. OHWM of Deep River, viewing northwest, 5/17/2021



Photo 53. Northern portion of Wetland C adjacent to Deep River, viewing west, 9/25/2021



Photo 54. Shrub area of Wetland C, viewing south, 9/25/2021



Photo 55. Presumed outlet of Str. 2 north of bridge over Muck Pocket, viewing north, 9/25/2021



Photo 56. Presumed area of Str. 2 inlet covered by dense vegetation with Wetland B, viewing north, 9/25/2021



Photo 57. Panoramic view of wetland complex east of bridge over Muck Pocket, viewing east, 9/25/2021



Photo 58. Panoramic view of Wetland C and Deep River west of bridge over Muck Pocket, viewing southwest, 9/25/2021

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 2/25/2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Payton Fischer, 6510 Telecom Drive, Suite 210, Indianapolis, IN 46278

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

US 6 Bridge Replacement over Muck Pocket
Des. No. 1900012

Proposed work includes replacement of the existing a cast-in-place concrete slab 16 span bridge, crossing over Muck Pocket. Replacement will be with a cast-in-place concrete slab superstructure on pile bent substructure units. The roadway profile will be raised to improve hydraulic performance. It will include raising the approach roadway between US 6/SR 51 bridges over Deep River and Muck Pocket. The project will include reinforced concrete bridge approaches, bridge railing, and guardrail. The need (or deficiency) for this project is due to the existing structure having longitudinal cracking, spalling, and exposed reinforced steel. The purpose of this project is to provide a long lasting structurally and hydraulically sufficient crossing of US 6 over Muck Pocket.



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

State: **IN** County/parish/borough: **Lake County** City: **Lake Station**

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

Lat.: 41.571116° Long.: -87.239909°

Universal Transverse Mercator: **UTM Zone 16N**

Name of nearest waterbody: **Deep River**

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

Office (Desk) Determination. Date:

Field Determination. Date(s):

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)
Deep River	41.570348°	-87.239948°	861 linear feet, 3.16 acres	non-wetland waters	Section 404
Wetland A	41.570840°	-87.239519°	0.193 acre	wetlands	Section 404
Wetland B	41.571707°	-87.239479°	0.065 acre	wetlands	Section 404
Wetland C	41.571018°	-87.239873°	0.288 acre	wetlands	Section 404
Wetland D	41.571222°	-87.239382°	0.017 acre	wetlands	Section 404
Wetland E	41.571763°	-87.239338°	0.060 acre	wetlands	Section 404

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)
Open Water 1	41.571477°	-87.239409°	0.172 acre	non-wetland waters	Section 404
Open Water 2	41.570710°	-87.239702°	0.141 acre	non-wetland waters	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “pre-construction notification” (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant’s acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there “*may be*” waters of the U.S. and/or that there “*may be*” navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:


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

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

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: _____.
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____.
- Data sheets prepared by the Corps: _____.
- Corps navigable waters' study: _____.
- U.S. Geological Survey Hydrologic Atlas: _____.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000, Portage.
- Natural Resources Conservation Service Soil Survey. Citation: SSURGO Lake County, IN.
- National wetlands inventory map(s). Cite name: Wetland Mapper, HUC-12, 040400010508.
- State/local wetland inventory map(s): _____.
- FEMA/FIRM maps: _____.
- 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): Ortho 2018
or Other (Name & Date): Site Visit Photos, May 17, June 14, and Sept. 25, 2021
- Previous determination(s). File no. and date of response letter: _____.
- Other information (please specify): IDNR-DOW Best Available floodplain dataset for Lake Co., IN.

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


Payton Fischer

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.



- Point of Interest
- Base Flood Elevation Point
- Flood Elevation Points**
 - STUDIED STREAM
- Rivers and Streams at least 1 square mile**
- Drainage Area (sq. miles)**
 - 100 - 500
- FEMA Zone AE Floodway; FEMA Administrative Floodway
- FEMA Zone AE
- Additional Floodplain Area; DNR .2 Percent Flood Hazard

Point of Interest Coordinates (WGS84)
 Long: -87.2397364442
 Lat: 41.5708784282

The information provided below is based on the point of interest shown in the map above.

County: **Lake**

Approximate Ground Elevation: **599.0 feet (NAVD88)**

Stream Name:
Deep River

Base Flood Elevation: **600.0 feet (NAVD88)**

Drainage Area: **Not available**

Best Available Flood Hazard Zone: **FEMA Zone AE**

National Flood Hazard Zone: **FEMA Zone AE**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **yes-**

Floodplain Administrator: **Dina Cortez, Building Department Administrator**

Community Jurisdiction: **City Of Lake Station, City proper**

Phone: **(219) 850-1330**

Email: **lsbuildingdept@gmail.com**

US Army Corps of Engineers District: **Chicago**

Date Generated: 8/2/2022

APPENDIX G

Air Quality

**Northwestern Indiana Regional Planning Commission
2022-2026 Transportation Improvement Program**

INDOT																		
TIP ID	WORK TYPE	PROJECT TITLE	LEAD AGENCY	FED FUND	FED	STATE	LOC	PE	RW	CN	CE	2022	2023	2024	2025	2026	TOTAL YEAR	AQ Exempt
2000852	District Bridge Project (Rehabilitation)	Bridge Deck Replacement, I 94 over Bleck Road	INDOT	NHPP Interstate	\$5,920,796	\$1,187,866	\$0	\$900,000	\$0	\$6,208,662	\$0	\$100,000	\$30,000	\$6,578,662	\$0	\$0	\$7,108,662	Exempt
1296364	Bridge Painting at SR 49	Bridge Painting, Bridge over Amtrak, 0.33 miles N of I-94	INDOT		\$0	\$3,109,812	\$0	\$294,740	\$100,000	\$2,715,072	\$0	\$2,982,072	\$0	\$0	\$0	\$0	\$3,109,812	Non-Exempt
1700296	Bridge Painting at I 94	Bridge Painting, EBL over US 20, Willow Creek & CSX RR	INDOT	NHPP Interstate	\$6,781,310	\$10,848	\$0	\$673,480	\$0	\$6,118,678	\$0	\$6,683,678	\$0	\$0	\$0	\$0	\$6,792,158	Non-Exempt
1800628	Bridge Painting	Bridge Painting, US 20, Bridge Painting @ CSX RR	INDOT	NHPP Non Interstate	\$61,760	\$632,337	\$0	\$77,200	\$0	\$616,897	\$0	\$616,897	\$0	\$0	\$0	\$0	\$694,097	Exempt
2001039	District Bridge Project (Rehabilitation)	Bridge Painting, Bridge Painting, I 94 over I-94 EB/WB	INDOT		\$0	\$195,200	\$0	\$25,200	\$0	\$140,000	\$30,000	\$170,000	\$0	\$0	\$0	\$0	\$195,200	Exempt
1901401	District Bridge Project (Rehabilitation)	Bridge Painting, SR 2, SR 49 NB at SR 2 EB/WB	INDOT		\$0	\$1,108,000	\$0	\$160,000	\$0	\$948,000	\$0	\$0	\$0	\$80,000	\$978,000	\$0	\$1,108,000	Exempt
2001572	Bridge rehabilitation	Bridge Rehabilitation Or Repair, I-65 NB over 15th Ave	INDOT	NHPP Interstate	\$270,000	\$30,000	\$0	\$50,000	\$0	\$250,000	\$0	\$300,000	\$0	\$0	\$0	\$0	\$300,000	Exempt
1703000	Pedestrian bridge removal	Bridge Removal; SR 912 Pedestrian Walk @ RR Yard service road	INDOT	NHPP Non Interstate	\$443,137	\$110,784	\$0	\$93,200	\$40,000	\$420,721	\$0	\$90,000	\$420,721	\$0	\$0	\$0	\$553,921	Exempt
1900012	District Bridge Project	Bridge Replacement, Concrete, US 6 at Muck Pocket	INDOT		\$0	\$4,287,589	\$0	\$795,000	\$0	\$3,492,589	\$0	\$0	\$15,000	\$3,787,589	\$0	\$0	\$4,287,589	Exempt
1900009	District Bridge Project	Bridge Replacement, Concrete, US 20 at Kennedy Ave, IHB RR	INDOT		\$0	\$4,589,364	\$0	\$735,000	\$0	\$3,854,364	\$0	\$0	\$0	\$25,000	\$4,144,364	\$0	\$4,589,364	Exempt
1701446	Bridge Replacement	Bridge Replacement, SR 2 over Hutton Ditch	INDOT		\$0	\$2,520,313	\$0	\$0	\$0	\$2,520,313	\$0	\$2,520,313	\$0	\$0	\$0	\$0	\$2,520,313	Exempt



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-Executive Office
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

April 26, 2022

Mr. Jermaine R. Hannon, Division Administrator
FHWA Indiana Division
575 North Pennsylvania St., Room 254
Indianapolis, IN 46204

Ms. Kelley Brookins, Regional Administrator
FTA Region 5
200 West Adams St.
Suite 320
Chicago, IL 60606-5253

Dear Mr. Hannon /Ms. Brookins:

The Indiana Department of Transportation is pleased to submit its Draft FY 2022-2026 Statewide Transportation Improvement Program (STIP) for review and comment by your offices.

Included in the final submitted document is a listing of the state’s expansion/preservation and local small urban and rural and rural transit projects. The following Metropolitan Planning Organization TIP’s will be included in the FY 2022-2026 STIP by reference, pending FHWA approval in May 2022.

Area Plan Commission of Tippecanoe County (APCTC)	FY 2022-2026
• <i>Version 3/10/2022</i>	
Bloomington-Monroe County Metropolitan Planning Organization (BMCMPPO)	FY 2022-2026
• <i>Version 3/11/2022</i>	
Columbus Area Metropolitan Planning Organization (CAMPO)	FY 2022-2026
• <i>Version 3/22/2021</i>	
Delaware-Muncie Metropolitan Plan Commission (DMMPC)	FY 2022-2025
• <i>Version 12/15/2021</i>	
Evansville Metropolitan Planning Organization (EMPO)	FY 2022-2026
• <i>Version 3/10/2022</i>	
Kokomo-Howard County Governmental Coordinating Council (KHCGCC)	FY 2022-2026
• <i>Version 3/10/2022</i>	
Kentuckiana Regional Planning and Development Agency (KIPDA)	FY 2020-2025
• <i>Version 3/29/2022</i>	
Indianapolis Metropolitan Planning Organization (IMPO)	FY 2022-2025
• <i>Version 8/18/2021</i>	
Michiana Area Council of Governments (MACOG)	FY 2022-2026
• <i>Version 3/09/2022</i>	

Madison County Council of Governments (MCCOG)	FY 2022-2026
• <i>Version 7/13/2021</i>	
Northeastern Indiana Regional Coordinating Council (NIRCC)	FY 2022-2026
• <i>Version 3/28/2022</i>	
Northwestern Indiana Regional Planning Commission (NIRPC)	FY 2022-2026
• <i>Version 3/17/2022</i>	
Ohio-Kentucky-Indiana Regional Council of Governments (OKI)	FY 2020-2023
• <i>Version 03/10/2022</i>	
Terre Haute Area Metropolitan Planning Organization (THAMPO)	FY 2020-2024
• <i>Version 08/26/2021</i>	

In addition, INDOT has expanded our public involvement process by taking advantage of virtual meeting techniques and allowing accessibility to online documents, materials, virtual meeting registration, recorded virtual meetings, and comment forms. INDOT also leveraged our planning partner contacts (MPOs, RPOs, LTAP), social media, and notifications sent to local libraries, housing authorities, senior aging centers, and local newspapers across the state.

We greatly appreciate FHWA/FTA support in the development of the STIP 2022-2026 and look forward to working together to achieve our mutual goals. Should you have any questions pertaining to this amendment, please contact Michael McNeil, STIP Specialist at 317-232-0223 or at mmcneil@indot.in.gov.

Sincerely,



Michael Smith, Commissioner
Indiana Department of Transportation

cc: (w/enclosure): FTA
Michelle Allen, FHWA
Jeffrey Brooks, INDOT
Kristin Brier, INDOT
Kathy Eaton-McKalip, INDOT
Louis Feagans, INDOT
Roy Nunnally, INDOT
Larry Buckel, INDOT
Jay Mitchell, INDOT
Jason Casteel, INDOT
Michael McNeil, INDOT



Federal Transit Administration
Region V
200 West Adams St., Suite 320
Chicago, IL 60606-5253

U.S. Department
of Transportation

Federal Highway Administration
Indiana Division
575 N. Pennsylvania St., Rm 254
Indianapolis, IN 46204-1576

June 17, 2022

Mr. Michael Smith
Commissioner
Indiana Department of Transportation
100 N Senate Ave. N955
Indianapolis, IN 46204

SUBJECT: Indiana FY2022-2026 STIP Approval and Associated Federal Planning Finding

Dear Mr. Smith:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the FY2022-2026 Indiana Statewide Transportation Improvement Program (INSTIP), which was submitted by the INDOT request letter dated April 27, 2022.

Based on our review of the information provided, certifications of the Statewide and Metropolitan transportation planning processes for and within the state of Indiana, and our participation in those transportation planning processes (including planning certification reviews conducted in Transportation Management Areas), FHWA and FTA are jointly approving the FY2022-2026 STIP, including the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIPs) directly incorporated into the STIP, subject to the corrective actions identified in the attached Federal Planning Finding (FPF) report. FHWA and FTA consider the projects in the 5th year for informational purposes only, and our approval does not exceed four years per 23 CFR 450.220(c).

FHWA and FTA are required under 23 CFR 450.220(b) to document and issue an FPF in conjunction with the approval of the FY2022-2026 STIP. At a minimum, the FPF verifies that the development of the STIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements. FHWA and FTA find that the Indiana FY2022-2026 STIP substantially meets the transportation planning requirements and are approving the STIP subject to the corrective actions outlined in the FPF. This approval is effective June 17, 2022, and is given with the understanding that an eligibility determination of individual projects for funding must be met, and INDOT must ensure the satisfaction of all administrative and statutory requirements, as well as address the corrective actions outlined in the attached report. FHWA and FTA will continue to partner with INDOT to ensure the previously developed action plan (attached) is implemented to address the corrective actions. If progress is not made in addressing the corrective actions, future amendments to the FY2022-2026 STIP, or adoption of the FY2024-2028 STIP, may not be approved by USDOT.

If you have questions or need additional information concerning our approval and the FPF, please contact Ms. Michelle Allen of the FHWA Indiana Division at (317) 226-7344, or by email at michelle.allen@dot.gov, or Mr. Jason Ciavarella of the FTA Region 5 Office at (312) 353-1653, or by email at jason.ciavarella@dot.gov.

Sincerely,

**KELLEY
BROOKINS** Digitally signed by
KELLEY BROOKINS
Date: 2022.06.13
10:08:34 -05'00'

Kelley Brookins
Regional Administrator
FTA Region V

Sincerely,

**JERMAINE
R HANNON** Digitally signed by
JERMAINE R
HANNON
Date: 2022.06.13
15:57:46 -04'00'

Jermaine R. Hannon
Division Administrator
FHWA Indiana Division

cc: (transmitted by e-mail)
Louis Feagans, INDOT
Roy Nunnally, INDOT
Karen Hicks, INDOT

Attachments have been removed for the purposes of this NEPA document.

APPENDIX H

Public Involvement



Certified MBE, State of Indiana; City of Indianapolis

INDOT Certified DBE

Job #20SU080

NOTICE OF SURVEY

January 11, 2021

RE: PROJECT: S. Randolph Street
Bridge Improvement Project
Lake Station, Indiana

Dear Property Owner:

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

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

The survey work will include mapping the location of features such as buildings, trees, fences, and drives, and obtaining ground elevations. This work is necessary for the proper planning and design of the Bridge Improvement Project. Please be assured of our sincere desire to cause you as little inconvenience as possible during the survey. If any problems do occur, please contact our field crew or contact me at the phone number or address shown below.

We do appreciate your input regarding any issues that this project may encounter during the design phase. Included with this notice is a short questionnaire that you can fill out and return to us in the enclosed self-addressed stamped envelope. Thank you, in advance, for your participation in this process.

Sincerely,

SJCA P.C.

Christopher H. Phillips, PLS
ChrisP@SJCAinc.com



SURVEY QUESTIONNAIRE

January 11, 2021

RE: PROJECT: S. Randolph Street
Bridge Improvement Project
Lake Station, Indiana

Name of person completing questionnaire: _____

Have you received the Notice of Survey letter? (yes or no): _____

If different from the letter, the correct occupant's name and address should be:

Name: _____

Address: _____

If you have any special requests (instructions to close gates, beware of dog, etc.), please list here:

Please describe any areas where you feel there may be stormwater problems (e.g. flooding, clogged pipes, standing water, etc.)

If the property utilizes water wells and/or septic systems, please describe their location: _____

Please describe any facilities that are underground and not visible: _____

Any other issues we should be aware of? _____

APPENDIX I

Additional Studies

Inspector: Cristin Burlage
 Inspection Date: 11/05/2020

Asset Name: (6)51-45-01943 B
 Facility Carried: US 6

Bridge Inspection Report

IDENTIFICATION

(1) STATE CODE:	185 - Indiana	(12) BASE HIGHWAY NETWORK:	1
(8) STRUCTURE:	018870	(13A) INVENTORY ROUTE:	0000000001
(5 A-B-C-D-E) INV. ROUTE:	1 - 2 - 1 - 00006 - 0	(13B) SUBROUTE NUMBER:	01
(2) HIGHWAY AGENCY DISTRICT:	04 - La Porte	(16) LATITUDE:	41.57052
(3) COUNTY CODE:	045 - LAKE	(17) LONGITUDE:	-87.23974
(4) PLACE CODE:	41535 - LAKE STATION	(98) BORDER	
(6) FEATURES INTERSECTED:	MUCK POCKET	A) STATE NAME:	
(7) FACILITY CARRIED:	US 6	B) PERCENT	%
(9) LOCATION:	00.84 E SR 51/I-80/94	(99) BORDER BRIDGE STRUCT. NO:	
(11) MILEPOINT:	0015.840		

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN:		(45) NUMBER OF SPANS IN MAIN UNIT:	016
A) KIND OF MATERIAL/DESIGN:	2 - Concrete continuous	(46) NUMBER OF APPROACH SPANS:	0000
B) TYPE OF DESIGN/CONSTR:	01 - Slab	(107) DECK STRUCTURE TYPE:	1 - Concrete Cast-in-Place
(44) STRUCTURE TYPE, APPROACH SPANS:		(108) WEARING SURFACE/PROT SYS:	
A) KIND OF MATERIAL/DESIGN:	0 - Other	A) WEARING SURFACE:	3 - Latex Concrete or similar additive
B) TYPE OF DESIGN/CONSTR:	00 - Other	B) DECK MEMBRANE:	0 - None
		C) DECK PROTECTION:	1 - Epoxy Coated Reinforcing

AGE OF SERVICE

(27) YEAR BUILT:	1941	(28) LANES:	
(106) YEAR RECONSTRUCTED:	2003	A) ON BRIDGE:	02
(42) TYPE OF SERVICE:		B) UNDER BRIDGE:	00
A) ON BRIDGE:	5 - Highway-pedestrian	(29) AVERAGE DAILY TRAFFIC:	016223
B) UNDER BRIDGE:	5 - Waterway	(30) YEAR OF AVERAGE DAILY TRAFFIC:	2004
		(109) AVERAGE DAILY TRUCK TRAFFIC:	05 %
		(19) BYPASS DETOUR LENGTH:	001 MI

Inspector: Cristin Burlage
 Inspection Date: 11/05/2020

Asset Name: (6)51-45-01943 B
 Facility Carried: US 6

Bridge Inspection Report

GEOMETRIC DATA

(48) LENGTH OF MAX SPAN: 0019.7 FT	(35) STRUCTURE FLARED: 0 - No flare
(49) STRUCTURE LENGTH: 00289.0 FT	(10) INV RTE, MIN VERT CLEARANCE: 99.99 FT
(50) CURB/SIDEWALK WIDTHS:	(47) TOT HORIZ CLEARANCE: 039.0 FT
A) LEFT 00.0 FT	(53) VERT CLEAR OVER BR RDWY: 99.99 FT
B) RIGHT: 05.0 FT	(54) MIN VERTICAL UNDERCLEARANCE:
(51) BRDG RDWY WIDTH CURB-TO-CURB: 039.0 FT	A) REFERENCE FEATURE: N
(52) DECK WIDTH, OUT-TO-OUT: 047.0 FT	B) MIN VERT UNDERCLEAR: 0 FT
(32) APPROACH ROADWAY 040.0 FT	(55) LATERAL UNDERCLEARANCE RIGHT:
(33) BRIDGE MEDIAN: 0 - No median	A) REFERENCE FEATURE: N
(34) SKEW: 00 DEG	B) MIN LATERAL UNDERCLEAR: 000.0 FT
	(56) MIN LATERAL UNDERCLEAR ON LEFT: 00.0 FT

INSPECTIONS

(90) INSPECTION DATE: 11/05/2020	(91) DESIGNATED INSPECTION FREQUENCY: 24 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: 5 - Fair Condition (minor section loss)	(60) SUBSTRUCTURE: 5 - Fair Condition (minor section loss)
(58.01) WEARING SURFACE: 6 - Satisfactory Condition	(61) CHANNEL/CHANNEL PROTECTION: 7 - Bank protection needs minor repairs
(59) SUPERSTRUCTURE: 5 - Fair Condition (minor section loss)	(62) CULVERTS: N - Not Applicable

CONDITION COMMENTS

(58) DECK: 5 - Fair Condition (minor section loss)
 Comments:
 All spans underside have longitudinal cracking. Spans G, H, I, J, K, N, O, & P have delamination, spalling with exposed rebar to varying degrees/extent that follows along and around the longitudinal construction seam to the west end.

(58.01) WEARING SURFACE: 6 - Satisfactory Condition
 Comments:
 Longitudinal cracking in the wearing surface and some wear in the wheel paths.

(59) SUPERSTRUCTURE: 5 - Fair Condition (minor section loss)
 Comments:
 See deck comments.

Inspector: Cristin Burlage
Inspection Date: 11/05/2020

Asset Name: (6)51-45-01943 B
Facility Carried: US 6

Bridge Inspection Report

(60) SUBSTRUCTURE: 5 - Fair Condition (minor section loss)

Comments:

Pier 13 cap has heavy spalling with exposed rebar on North side, some less severe spalling on the South side. Pier 11 cap has some spalling and Abutment 17 is undermined on the West end.

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

Comments:

No defined channel. The ground under the bridge is muddy with invasive weeds growing around the sides of the structure and some small brush.

(62) CULVERTS: N - Not Applicable

Comments:

LOAD RATING AND POSTING

(31) DESIGN LOAD:	5 - HS 20	(66) INVENTORY RATING:	35
(70) BRIDGE POSTING	5 - Equal to or above legal loads	(65) INVENTORY RATING METHOD:	1 - Load Factor (LF)
(41) STRUCTURE OPEN/POSTED/CLOSED:	A - Open	(66B) INVENTORY RATING (H):	19
(64) OPERATING RATING:	58	(66C) TONS POSTED :	
(63) OPERATING RATING METHOD:	1 - Load Factor (LF)	(66D) DATE POSTED/CLOSED:	

APPRAISAL

SUFFICIENCY RATING:	85.0	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	0	36A) BRIDGE RAILINGS:	1
(67) STRUCTURAL EVALUATION:	5	36B) TRANSITIONS:	1
(68) DECK GEOMETRY:	5	36C) APPROACH GUARDRAIL:	1
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	N	36D) APPROACH GUARDRAIL ENDS:	1

(71) WATERWAY ADEQUACY: 7 - Slight Chance of Overtopping Bridge

Comments:

(72) APPROACH ROADWAY ALIGNMENT: 8 - Equal to present desirable criteria

Comments:

Speed reduction not necessary for traffic to safely travel across structure.

(113) SCOUR CRITICAL BRIDGES: 8 - Stable for scour conditions

Comments:

Widened with Steel Shells, 1984

This bridge should be considered as LOW Risk for Vulnerability for Scour. This based on all substructure units set on piles, and the because this is basically an overflow structure that only has flow under it on rare occasions.

There is a minor amount of Revetment Rip Rap on what would be the downstream wing/slope areas.

- The 1941 Flow Line elv. =
- The 1980 Flow Line elv. =
- The 2003 Flow Line elv. =

Inspector: Cristin Burlage
 Inspection Date: 11/05/2020

Asset Name: (6)51-45-01943 B
 Facility Carried: US 6

Bridge Inspection Report

CLASSIFICATION

(20) TOLL:	3 - On Free Road	(21) MAINT. RESPONSIBILITY:	01 - State Highway Agency
(22) OWNER:	01 - State Highway Agency	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	12 - Urban - Principal Arterial - Other Freeway or Expressway
(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:	1 - Structure/Route is on NHS
(105) FEDERAL LANDS HIGHWAYS:	0-Not Applicable	(110) DESIGNATED NATIONAL NETWORK:	Inventory route on National Truck 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:		(95) ROADWAY IMPROVEMENT COST:	\$ 000000
(75B) WORK DONE BY:		(96) TOTAL PROJECT COST:	\$ 000000
(76) LENGTH OF IMPROVEMENT:	00000.0 FT	(97) YR OF IMPROVEMENT COST EST:	
(94) BRIDGE IMPROVEMENT COST:	\$ 000000	(114) FUTURE AVG DAILY TRAFFIC:	022859
		(115) YR OF FUTURE ADT:	2030

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

Not Rated

Comments:

Endangered Species: * If yes, add one photo to the dropdown field

Bats: seen or heard under structure? *

N - No evidence of bats

Birds/swallows/nests seen? Empty nests present? *

N - No Birds and/or Nests Visi

BRIDGE Culvert Geometry:

Barrel Length:

Height:

Width:

LOAD RATING - BRADIN

Load Rating Date: 07-MAR-08

National Bridge Inventory (NBI):

(66B) INVENTORY RATING (H):	19	(31) DESIGN LOAD:	5
(65) INVENTORY RATING METHOD:	1	(70) BRIDGE POSTING:	5
(66) INVENTORY RATING:	35	(41) STRUCTURE OPEN/POSTED/CLOSED:	A
(63) OPERATING RATING METHOD:	1	(66C) TONS POSTED:	
(64) OPERATING RATING:	58	(66D) DATE POSTED/CLOSED:	

Posting Configurations:

Emergency Vehicles:

EV2: LEGAL RF:	1.586
EV3: LEGAL RF:	1.145

5-Axles:

AASHTO TYPE 3S2: LEGAL RF:	2.29
SU5: LEGAL RF:	1.866

TOLL ROAD LOADING NO. 1: ROUTINE PERMIT RF:

2-Axles:

H20-44: LEGAL RF:	1.66
ALTERNATE MILITARY: LEGAL RF:	1.479

6+-Axles:

AASHTO TYPE 3-3: LEGAL RF:	2.535
----------------------------	-------

LANE TYPE: LEGAL RF:

3-Axles:

HS20: LEGAL RF:	1.63
AASHTO TYPE 3: LEGAL RF:	2.088

SU6: LEGAL RF:	1.805
----------------	-------

SPECIAL TOLL ROAD TRUCK: ROUTINE PERMIT RF:

SU7: LEGAL RF:	1.865
----------------	-------

4-Axles:

SU4: LEGAL RF:	1.866
----------------	-------

MICHIGAN TRAIN TRUCK NO. 5: ROUTINE PERMIT RF:

TOLL ROAD LOADING NO. 2:
ROUTINE PERMIT RF:

MICHIGAN TRAIN TRUCK NO. 8: ROUTINE PERMIT RF:

Other Configurations:

H20-44: DESIGN RF:	.994
NRL: LEGAL RF:	1.805

SUPERLOAD-11 AXLES: SPECIAL PERMIT RF:	1.263
--	-------

SUPERLOAD-13 AXLES: SPECIAL PERMIT RF:	1.45
--	------

SUPERLOAD-14 AXLES: SPECIAL PERMIT RF:	1.084
--	-------

SUPERLOAD-19 AXLES (152.5T): SPECIAL PERMIT RF:	1.611
---	-------

SUPERLOAD-19 AXLES (240.045T): SPECIAL PERMIT RF:	1.267
---	-------

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

ProjectNumber	SubProjectCode	County	Property
1800005	1800005	Lake	Dowling Park
1800011	1800011	Lake	Tolleston Park
1800012	1800012	Lake	Washington Park
1800040	1800040	Lake	Homestead Park
1800055	1800055	Lake	Sheppard Memorial Park
1800059	1800059	Lake	Cheever Park
1800062	1800062	Lake	Leroy Township Park
1800063	1800063	Lake	Markley Memorial ParkEllendale Park
1800071	1800071	Lake	Cheever Park
1800087	1800087	Lake	Sheppard Memorial Park
1800102	1800102	Lake	Grand Boulevard Lake Recreation Area
1800108	1800108	Lake	Riverview Park
1800137	1800137	Lake	Northgate Park
1800150	1800150	Lake	Meadows Park
1800168	1800168	Lake	Sunnyside Park
1800170	1800170	Lake	Howe Park
1800189	1800189	Lake	Dowling Park
1800193	1800193	Lake	Harrison Park
1800194	1800194	Lake	Martin Luther King Jr. Park (Formerly Maywood Park
1800199	1800199	Lake	Ridgeway Park
1800202	1800202	Lake	Hatcher Park
1800206	1800206	Lake	Meadows Park
1800226	1800226	Lake	Hoosier Prairie Nature Preserve
1800227	1800227	Lake	Liberty Park
1800231	1800231	Lake	Pheasant Hills Community Park & Cherry Hill Tot-Lot
1800237	1800237	Lake	Wolf Lake Park (N & S)
1800239	1800239	Lake	Bluebird Park
1800253	1800253	Lake	Centennial Park
1800272	1800272	Lake	Wolf Lake Park (N & S)
1800273	1800273	Lake	Grand Kankakee Marsh County Park
1800302	1800302	Lake	Munster Community Park

1800329	1800329	Lake	Jackson Park
1800369	1800369H	Lake	Harrison Park
1800369	1800369D	Lake	Lemon Lake County Park
1800377	1800377	Lake	Main Square Park
1800386	1800386	Lake	Gibson Woods Nature Preserve & Tolleston Ridges Nature Preserve
1800405	1800405G	Lake	Clark and Pine Dune Swale Nature Preserve
1800414	1800414	Lake	Wolf Lake Park (N & S)
1800417	1800417	Lake	Centennial (Dan Rabin) Plaza & Trail
1800424	1800424	Lake	Lake Etta County Park
1800455	1800455	Lake	Deep River - Woods Mill County Park
1800464	1800464	Lake	Festival Park & Lakefront Park
1800473	1800473	Lake	Oak Ridge Prairie Co. Park
1800488	1800488	Lake	Marquette Park
1800489	1800489	Lake	Festival Park & Lakefront Park
1800522	1800522	Lake	Pavese Park
1800523	1800523	Lake	Lakewood Park
1800523.5	1800523.5	Lake	River Drive Park
1800528	1800528	Lake	Lowell Sports Park
1800533	1800533	Lake	Hobart City Ball Park
1800555	1800555	Lake	Scherwood Golf Course
1800580	1800580	Lake	Oak Ridge Park
1800586	1800586	Lake	Teibel Nature Park
1800586.1	1800586.1	Lake	Teibel Nature Park
1800590	1800590	Lake	Deep River County Park
1800622	1800622	Lake	Fireman's Park
1800636	1800636	Lake	Parrish Avenue Park

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

Figure 1.

	COC	AC
	Hobart Township, Lake County Indiana	Census Tract 418, Lake County Indiana
Minority Populations (ACS 2020, 5-Year Estimate)		
Total Population: Total	38,029	6,096
Total Population: Not Hispanic or Latino	30,600	4,698
Total Population: Not Hispanic or Latino; White Alone	26,869	4,309
Total Population: Not Hispanic or Latino; Black or African American alone	2,047	362
Total Population: Not Hispanic or Latino; American Indian and Alaska Native alone	79	14
Total Population: Not Hispanic or Latino; Asian alone	452	-
Total Population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	-	-
Total Population: Not Hispanic or Latino; Some other race alone	11	17
Total Population: Not Hispanic or Latino; Two or more races	1,147	13
Total Population: Hispanic or Latino	7,429	1,398
Total Population: Hispanic or Latino; White alone	3,880	716
Total Population: Hispanic or Latino; Black or African American alone	70	-
Total Population: Hispanic or Latino; American Indian and Alaska Native alone	29	-
Total Population: Hispanic or Latino; Asian alone	-	-
Total Population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	-	-
Total Population: Hispanic or Latino; Some other race alone	557	339
Total Population: Hispanic or Latino; Two or more races	527	220
Number Non-White/Minority	11,160	1,787
Percent Non-White/Minority	29.3%	29.3%
125-Percent of COC	36.7%	AC < 125% COC
Potential Minority EJ Impact		No
Low-Income (ACS 2020, 5-Year Estimate)		
Population where poverty status is determined: Total	37,503	6,045
Population where poverty status is determined: Income in the past 12 mo. below poverty level	5,836	670
Percent Low-Income	15.6%	11.1%
125-Percent of COC	19.5%	AC < 125% COC
Potential Low-Income EJ Impact?		No

American Community Survey
B03002 | HISPANIC OR LATINO ORIGIN BY RACE
 2020: ACS 5-Year Estimates Detailed Tables | Universe: Total population

Notes | Geos | Years | Topics | Surveys | Codes | Hide | Transpose | Margin of Error | Restore | Excel | CSV | ZIP | Share | Print | Map

Label	Hobart township, Lake County, Indiana		Census Tract 418, Lake County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	38,029	±271	6,096	±683
▼ Not Hispanic or Latino:	30,600	±959	4,698	±728
White alone	26,869	±1,168	4,309	±674
Black or African American alone	2,047	±771	362	±367
American Indian and Alaska Native alone	79	±94	14	±22
Asian alone	452	±255	0	±17
Native Hawaiian and Other Pacific Islander alone	0	±26	0	±17
Some other race alone	6	±11	0	±17
▼ Two or more races:	1,147	±338	13	±23
Two races including Some other race	115	±87	0	±17
Two races excluding Some other race, and three or more races	1,032	±321	13	±23
▼ Hispanic or Latino:	7,429	±954	1,398	±365
White alone	3,880	±787	713	±286
Black or African American alone	70	±97	0	±17
American Indian and Alaska Native alone	29	±34	0	±17
Asian alone	0	±26	0	±17
Native Hawaiian and Other Pacific Islander alone	0	±26	0	±17
Some other race alone	2,088	±557	383	±339
▼ Two or more races:	1,362	±527	302	±220
Two races including Some other race	902	±398	289	±216
Two races excluding Some other race, and three or more races	460	±286	13	±20

Photo 1: U.S. Census Data ASC Minority Populations (2020, 5-year estimate) for AC (Census Tract 418) and COC (Hobart Township, Lake County, Indiana)

American Community Survey
B17001 POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
 2020 ACS 5-Year Estimates Detailed Tables | Universe: Population for whom poverty status is determined

Notes Geos Years Topics Surveys Codes 123 Hide Transpose Margin of Error Restore Excel CSV ZIP Share Print Map

	Hobart township, Lake County, Indiana		Census Tract 418, Lake County, Indiana	
Label	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	37,503	±367	6,045	±688
▼ Income in the past 12 months below poverty level:	5,836	±1,086	670	±264
▼ Male:	2,997	±614	439	±218
Under 5 years	141	±80	0	±17
5 years	29	±44	0	±17
6 to 11 years	356	±154	38	±38
12 to 14 years	296	±176	0	±17
15 years	51	±39	20	±30
16 and 17 years	154	±117	19	±29
18 to 24 years	489	±204	48	±49
25 to 34 years	313	±121	110	±101
35 to 44 years	430	±173	29	±33
45 to 54 years	188	±110	97	±86
55 to 64 years	372	±125	39	±44
65 to 74 years	131	±85	16	±24
75 years and over	47	±45	23	±33
▼ Female:	2,839	±575	231	±97
Under 5 years	176	±100	0	±17
5 years	47	±64	0	±17
6 to 11 years	327	±158	0	±17
12 to 14 years	99	±81	0	±17
15 years	0	±26	0	±17
16 and 17 years	54	±45	0	±17
18 to 24 years	298	±137	6	±10
25 to 34 years	487	±137	31	±38
35 to 44 years	476	±190	95	±65
45 to 54 years	381	±203	11	±18
55 to 64 years	293	±163	35	±38
65 to 74 years	106	±49	34	±33
75 years and over	95	±56	19	±27

Photo 2: U.S. Census Data ASC Low-Income (2020, 5-year estimate) for AC (Census Tract 418) and COC (Hobart Township, Lake County, Indiana)

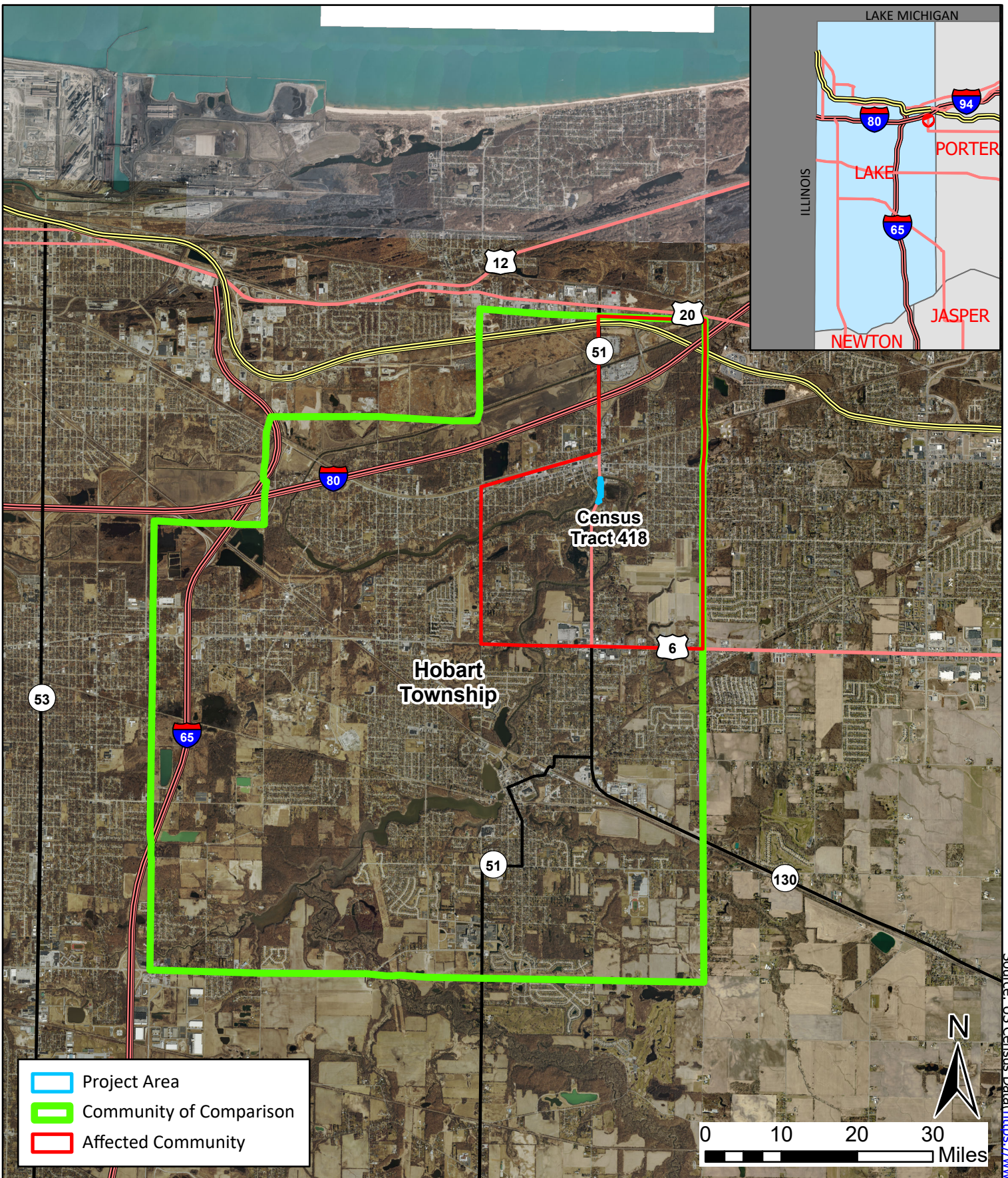


Figure 1 Affected Community

EJ Analysis

**US 6 Bridge Replacement Project
Lake County, Indiana**

Des. No. 1900012

Created: 6/20/2022



**Indiana Department
of Transportation**
100 North Senate Avenue
Indianapolis, IN 46204

Source: US Census Data (<https://www.census.gov/data.html>)