

Water Resource Map
 U.S. 31 Limited Access Corridor Study
 Des. No. 1900096
 Hamilton and Tipton County, Indiana



Des. No. 1901797: Data not included in this report. Please see pages: A1836-A2061

Wetland NAI extends north into survey area of Des. No. 1901797

Wetland NAI

Wetland SAV

UNT to Bennett Ditch

Bennett Ditch (First Crossing)

266TH ST

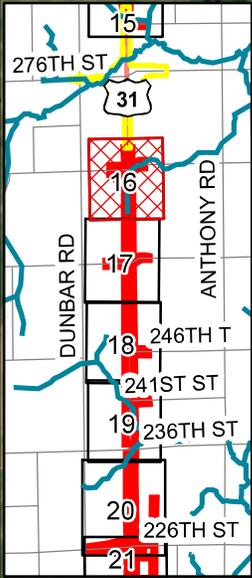
Bennett Ditch (Second Crossing)

31

SAW1
SAW2

*Wetland SAW

NAJ4
NAJ3

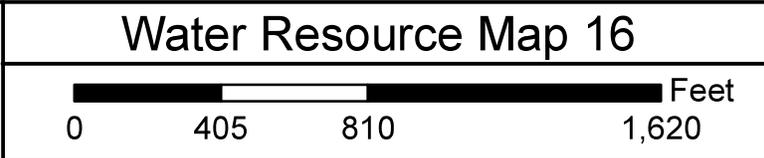


Legend

- | | | | |
|--|---------------------------|--|---------------------------|
| | Extent Location | | Field Delineated Stream |
| | Active Extent | | OHWM Measurement |
| | Survey Area (Des 1900096) | | Delineated Wetland |
| | Survey Area (Des 1901797) | | Wetland Data Point |
| | USGS Blueline Stream | | Likely Waters of the U.S. |
| | | | Lake |

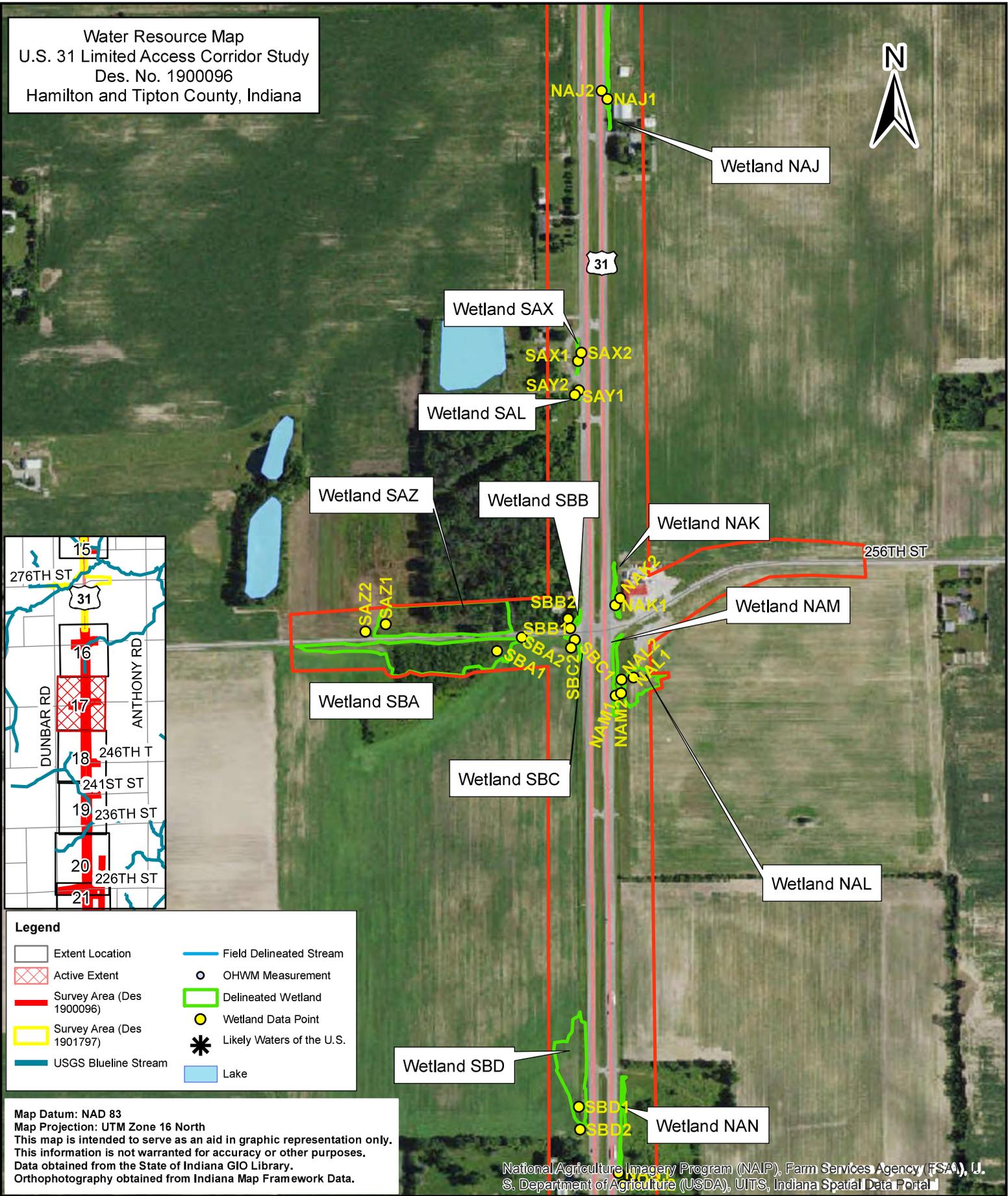
Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
 This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes. Data obtained from the State of Indiana GIO Library. Orthophotography obtained from Indiana Map Framework Data.

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



Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: August 31, 2020

Water Resource Map
 U.S. 31 Limited Access Corridor Study
 Des. No. 1900096
 Hamilton and Tipton County, Indiana



Legend

Extent Location	Field Delineated Stream
Active Extent	OHWM Measurement
Survey Area (Des 1900096)	Delineated Wetland
Survey Area (Des 1901797)	Wetland Data Point
USGS Blueline Stream	Likely Waters of the U.S.
Lake	

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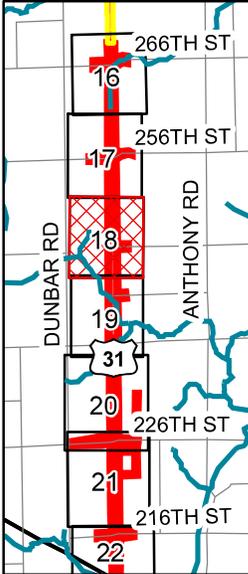
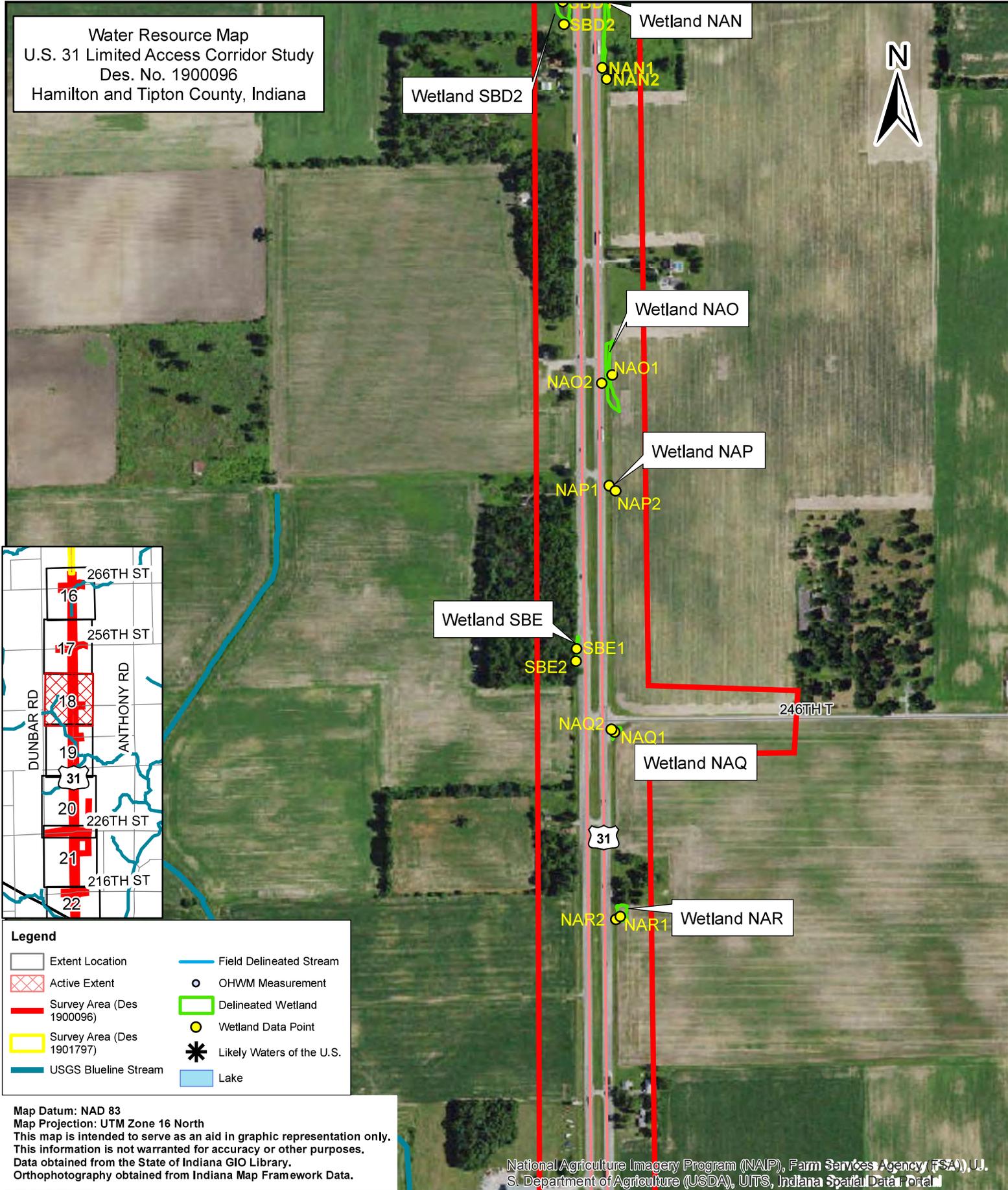


Water Resource Map 17

0 400 800 1,600 Feet

Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: August 31, 2020

Water Resource Map
 U.S. 31 Limited Access Corridor Study
 Des. No. 1900096
 Hamilton and Tipton County, Indiana



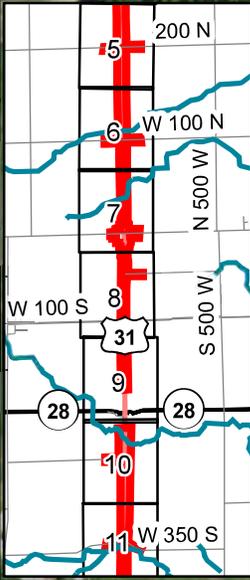
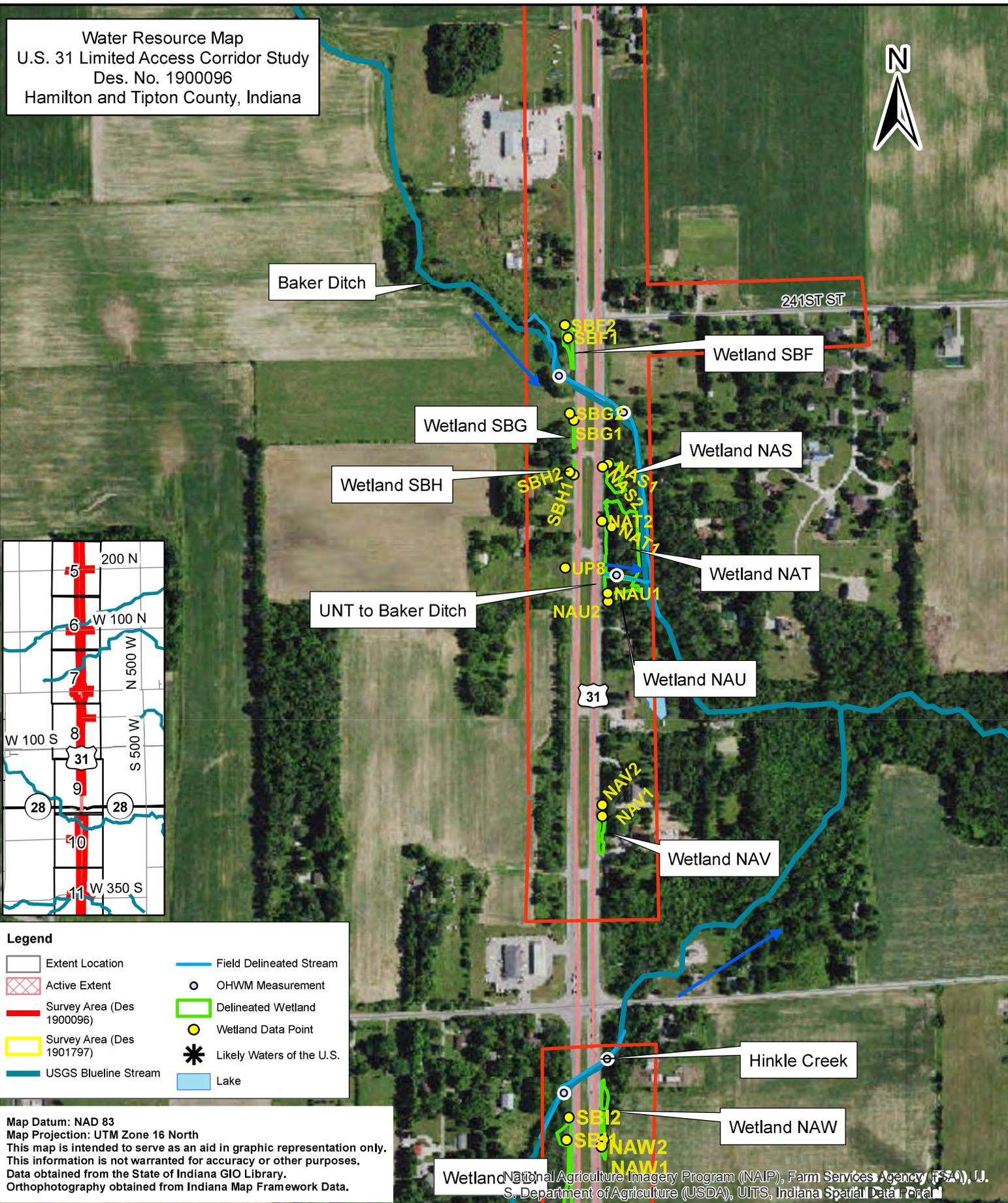
Legend	
	Extent Location
	Active Extent
	Survey Area (Des 1900096)
	Survey Area (Des 1901797)
	USGS Blueline Stream
	Field Delineated Stream
	OHWM Measurement
	Delineated Wetland
	Wetland Data Point
	Likely Waters of the U.S.
	Lake

Map Datum: NAD 83
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National Agriculture Imagery Program (NAIP), Farm Service Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

	<h2>Water Resource Map 18</h2>	Location: U.S. 31 Township: Adams & Jackson County: Hamilton Date: August 31, 2020

Water Resource Map
 U.S. 31 Limited Access Corridor Study
 Des. No. 1900096
 Hamilton and Tipton County, Indiana



Legend

Extent Location	Field Delineated Stream
Active Extent	OHWM Measurement
Survey Area (Des 1900096)	Delineated Wetland
Survey Area (Des 1901797)	Wetland Data Point
USGS Blueline Stream	Likely Waters of the U.S.
Lake	

Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
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National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

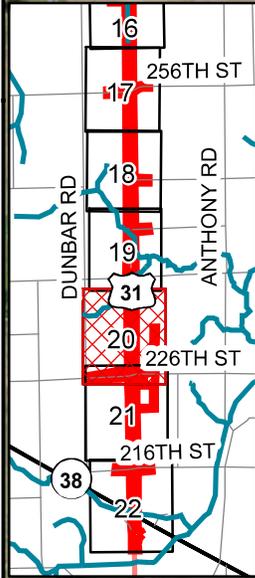
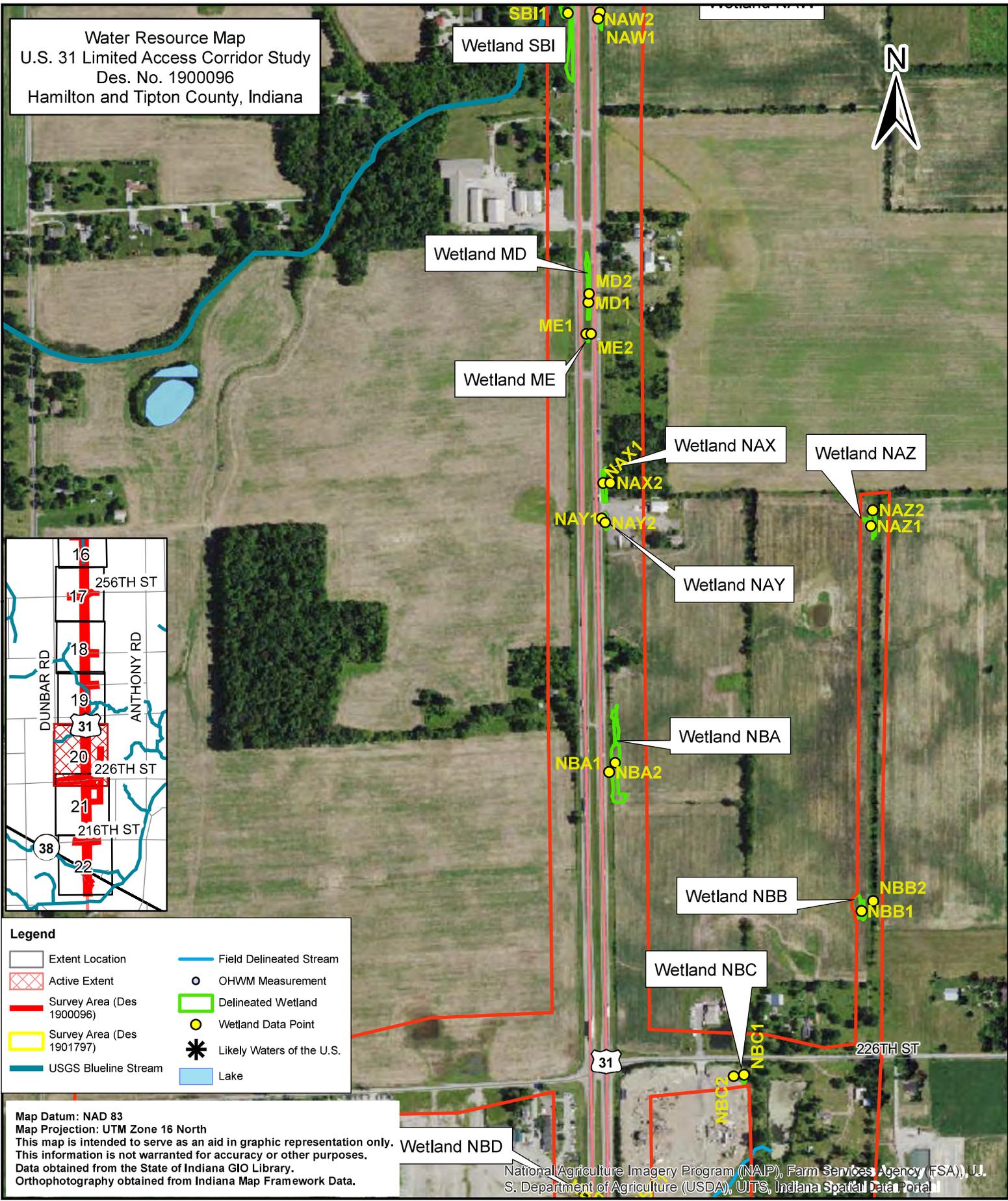


Water Resource Map 19

0 387.5 775 1,550 Feet

Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: August 31, 2020

Water Resource Map
 U.S. 31 Limited Access Corridor Study
 Des. No. 1900096
 Hamilton and Tipton County, Indiana

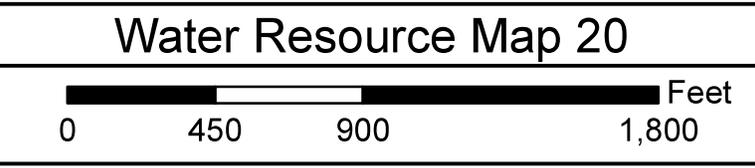


Legend

Extent Location	Field Delineated Stream
Active Extent	OHWM Measurement
Survey Area (Des 1900096)	Delineated Wetland
Survey Area (Des 1901797)	Wetland Data Point
USGS Blue line Stream	Likely Waters of the U.S.
Lake	

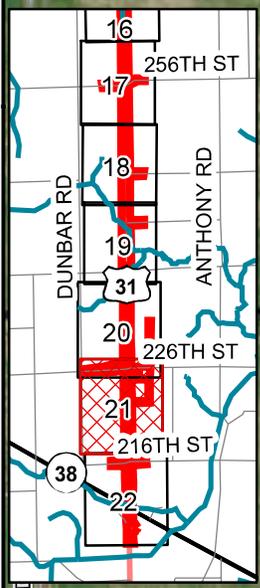
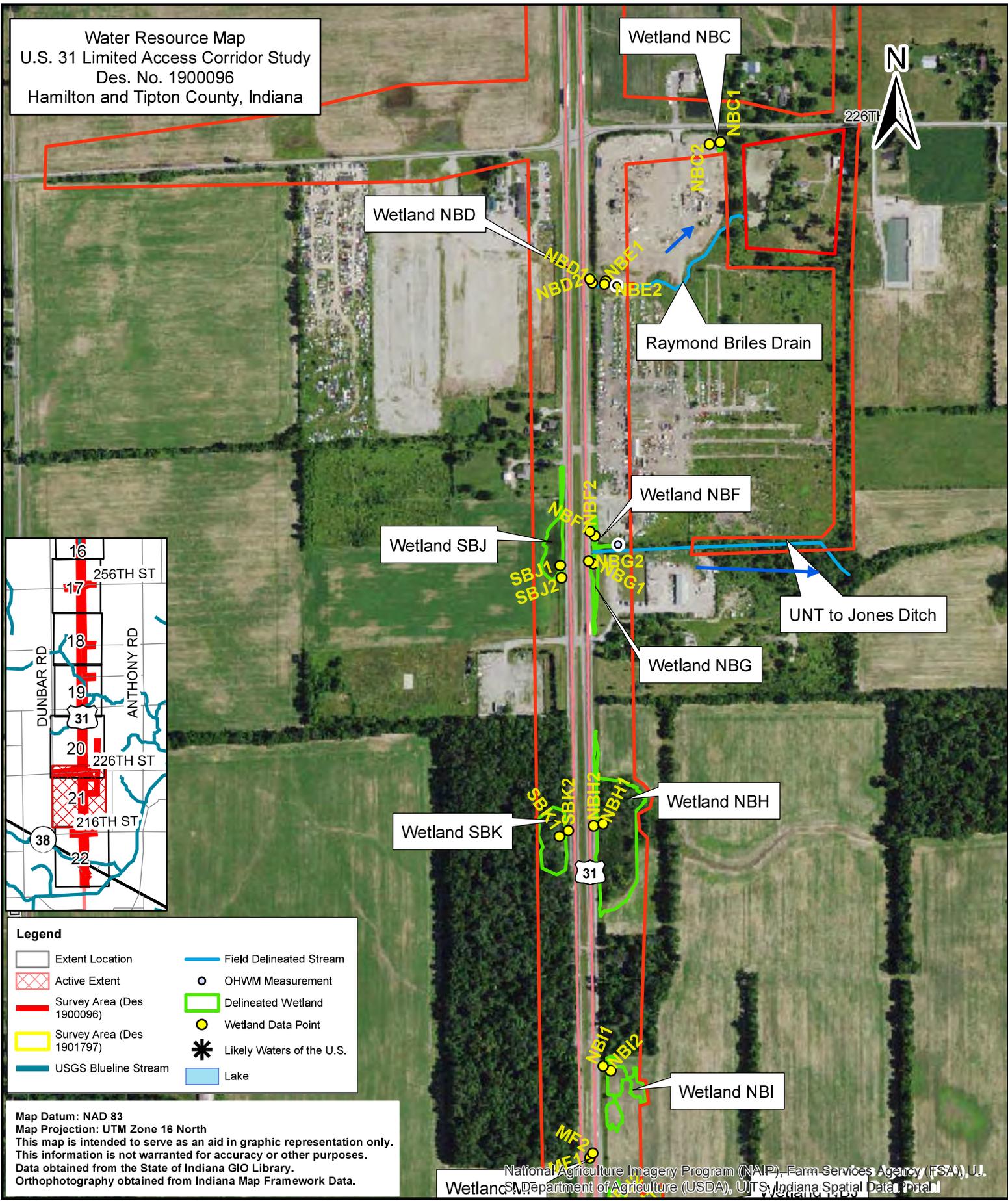
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National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: August 31, 2020

Water Resource Map
 U.S. 31 Limited Access Corridor Study
 Des. No. 1900096
 Hamilton and Tipton County, Indiana

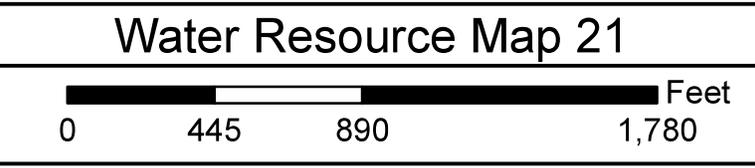


Legend

Extent Location	Field Delineated Stream
Active Extent	OHWM Measurement
Survey Area (Des 1900096)	Delineated Wetland
Survey Area (Des 1901797)	Wetland Data Point
USGS Blueline Stream	Likely Waters of the U.S.
Lake	

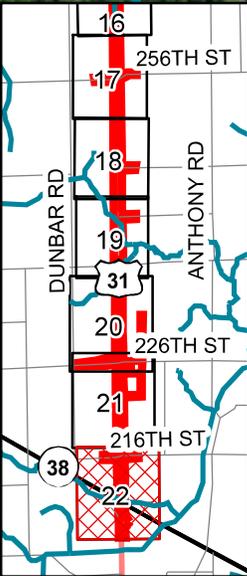
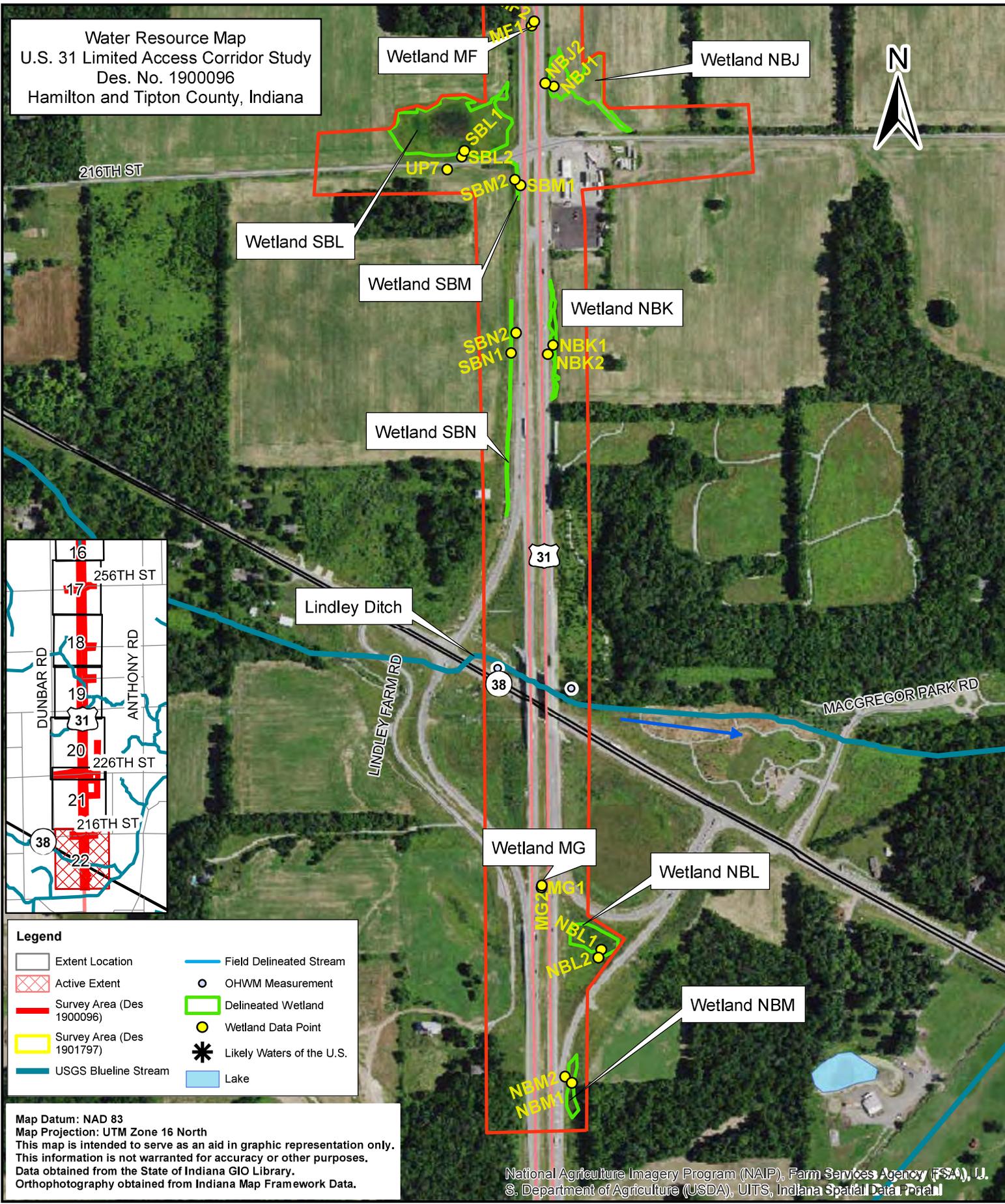
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National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), U.S. Indiana Spatial Data Portal



Location: U.S. 31
 Township: Adams, Jackson & Washington
 County: Hamilton
 Date: August 31, 2020

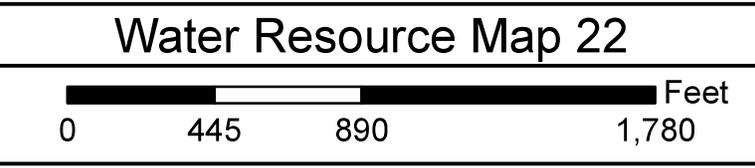
Water Resource Map
 U.S. 31 Limited Access Corridor Study
 Des. No. 1900096
 Hamilton and Tipton County, Indiana



Legend	
	Extent Location
	Active Extent
	Survey Area (Des 1900096)
	Survey Area (Des 1901797)
	USGS BlueLine Stream
	Field Delineated Stream
	OHWM Measurement
	Delineated Wetland
	Wetland Data Point
	Likely Waters of the U.S.
	Lake

Map Datum: NAD 83
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National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



Location: U.S. 31
 Township: Washington
 County: Hamilton
 Date: August 31, 2020

**Waters of the U.S. Determination
 US 31 and 276th Street Intersection Improvement Project
 Hamilton County, Indiana
 Des. No. 1901797**

Juliana Clayton
 Approved 1.13.21

Prepared by: Julie Evans, RQAW Corporation
 Completed Date: January 8, 2021

Dates of Waters Field Investigation:

A field investigation was conducted on June 23-24, and September 22, 2020 by HNTB Corporation to evaluate the presence of Waters of the United States for the proposed US 31 and 276th Street Intersection Improvement Project in Hamilton County, Indiana. RQAW corporation has completed the report based on the data gathered by HNTB Corporation. Additional wetland data (Wetlands NZ-NAA, NAE-NAG, and SAU) was gathered by RQAW corporation on August 19, September 10, and October 23, 2020 as part of the US 31 Limited Access Corridor Study (Des No. 1900096).

Location:

Intersection of US 31 and 276th Street
 Sections 7, 12, 13, & 18, Township 20 North, Ranges 3 & 4 East
 Arcadia and Sheridan U.S. Geological Survey (USGS) Quadrangles
 Hamilton County, Indiana
 Latitude: 40.1895° N
 Longitude: -86.12815° W

National Wetlands Inventory (NWI) Wetlands:

According to the U.S. Fish and Wildlife (USFWS) National Wetlands Inventory (NWI) data available through IndianaMap (<http://www.indianamap.org/>), there are 4 mapped palustrine forested broad leaved deciduous temporarily flooded (PFO1A) NWI polygons, 1 mapped riverine upper perennial unconsolidated bottom permanently flooded (R2UBH) NWI polygon, and 2 mapped riverine intermittent streambed seasonally flooded (R4SBC) NWI polygons within the survey area. A map showing a half mile radius with the NWI layer turned on is provided in the attachments (page A14).

Soils:

According to the Soil Survey Geographic (SSURGO) Database for Hamilton County, Indiana, the survey area contains soil areas with nationally listed hydric soils.

<u>Map Abbreviation</u>	<u>Soil Name</u>	<u>Hydric Component Range</u>	<u>Classification</u>
Br	Brookston silty clay loam, 0 to 2 percent slopes	66-99%	Hydric
CrA	Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	1-32%	Hydric
FnB2	Fox loam, 2 to 6 percent slopes, eroded	1-32%	Hydric
MmB2	Miami silt loam, 2 to 6 percent slopes, eroded	1-32%	Hydric
MoC3	Miami clay loam, 6 to 12 percent slopes, severely eroded	0%	Not Hydric
OcB2	Ockley silt loam, 2 to 6 percent slopes, eroded	1-32%	Hydric
Or	Orthents	0%	Not Hydric
Pn	Patton silty clay loam, 0 to 2 percent slopes	66-99%	Hydric
Sh	Shoals silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	1-32%	Hydric
Sx	Sloan silty clay loam, sandy substratum	100%	Hydric

<u>Map Abbreviation</u>	<u>Soil Name</u>	<u>Hydric Component Range</u>	<u>Classification</u>
Wh	Whitaker loam	1-32%	Hydric

12 Digit HUC:

Teter Branch-Little Cicero Creek HUC 051202010607

Attachments:

Project Location Maps.....	A1 – A3
Natural Resources Conservation Service (NRCS) Soil Survey Maps & Soils Report.....	A4 – A9
StreamStats, NWI Map, DFIRM Maps & Water Resources Maps.....	A10 – A24
Photograph Location Maps and Photographs.....	A25 – A150
Wetland Determination Forms.....	A151 – A213

Project Description:

The proposed project (Des. No. 1901797) is a part of a larger limited access corridor project (to occur sometime in the future) to extend the limited access highway between the segment of U.S. 31 between State Road 38 and State Road 931 that have already been converted to limited-access highway (Des No. 1900096). The proposed project would involve improving the intersection of US 31 and 276th Street. The need for the project derives from the high rate of accidents near intersections along this stretch of U.S. 31. Based on 2014-2016 traffic data, Hamilton County sees an average of 5.96 accidents per mile, per year and Tipton County has an average of 6.83 accidents per mile, per year. A 2017 study of the U.S. 31 corridor by CHA Consulting found the majority of crashes on U.S. 31 occurred within 1,000 feet of an intersection. According to the INDOT Engineering Report dated September 2020, four alternatives are considered. In addition to the “No Build Alternatives”, three alternatives are under consideration: Alternative 1 is a Parclo-A (Two Quadrant), Alternative 2 is a Diamond with Roundabouts, and Alternative 3 is a Traditional Diamond. Alternative 2, Diamond with Roundabouts, predicts the fewest amount of crashes in the corridor.

Streams:

According to the hydrology data available through IndianaMap (<http://www.indianamap.org/>) and the Arcadia and Sheridan USGS topographic maps (1:24,000 scale), Little Cicero Creek is a perennial blue-line stream mapped within the survey area. During the field investigation, the presence of Little Cicero Creek was verified. Two unnamed tributaries (UNT)s to Little Cicero Creek were also observed during the field investigation. The USGS National Hydrography Dataset (NHD) shows 15 perennial stream lines, 1 intermittent stream lines, 3 connector lines, and 2 canal/ditch lines withing the survey area.

Little Cicero Creek is a perennial blue line stream that flows east under US 31 into the White River. According to the USFWS Wetland Mapper Website (<https://www.fws.gov/wetlands/data/Mapper.html>) Little Cicero Creek is classified under the Cowardin Wetland Classification System, as R2UBH. According to the USGS StreamStats Report, Little Cicero Creek has a drainage area of 8.364 square mile and has a gradient of 7.19 feet per mile. The ordinary high water mark (OHWM) of Little Cicero Creek measured 20.6 feet wide and 1.9 feet in depth. The OHWM measurements were taken outside the influence of the structure to the extent practicable. This stream exhibited average quality due to overhanging vegetation, average sinuosity, and the presence of riffles and pools. The substrate was sand, silt and gravel. At its crossing under 276th Street, Little Cicero Creek is a legal drain (Little Cicero Creek Drain). Approximately 2428 linear feet (1.14 acre) of Little Cicero Creek is within the survey area. This stream would likely be considered a *Waters of the United States*, because it contributes perennial overland flow into the White River, which is a Traditionally Navigable Waterway (TNW).

UNT 1 to Little Cicero Creek (UNT 1) is a mapped intermittent blueline stream. The stream flows along the south side of Dunbar Road through several small structures and east into Little Cicero Creek. According to the USFWS Wetland Mapper Website (<https://www.fws.gov/wetlands/data/Mapper.html>), UNT 1 is classified under the Cowardin Wetland Classification System, as R4SBC. Stream data was not available on StreamStats; therefore, it is assumed the upstream drainage area of the stream is less than 0.01 square mile. The OHWM of UNT 1 measured 5.6 feet wide and 1 feet in depth. The OHWM measurements were taken outside the influence of the structure to the extent practicable. This stream exhibited poor quality due to a lack of overhanging vegetation, the presence of riffles and pools, and no sinuosity. The substrate was silt. The stream is also classified as a legal drain (Mary Parks Drain). Approximately 2100 linear feet (0.27 acre) of UNT 1 is within the survey area. This stream would likely be considered a Waters of the United States, because it contributes intermittent overland flow via Little Cicero Creek, into the White River, which is a TNW.

UNT 2 to Little Cicero Creek (UNT 2) is a mapped intermittent blueline stream. The stream flows east under US 31 into Little Cicero Creek via a corrugated metal pipe. According to the USFWS Wetland Mapper Website (<https://www.fws.gov/wetlands/data/Mapper.html>), UNT 2 is classified under the Cowardin Wetland Classification System, as R4SBC. UNT 2 flows southeast under US 31. According to the USGS StreamStats Report, Little Cicero Creek has a drainage area of 8.364 square mile and has a gradient of 14.8 feet per mile. The OHWM of UNT 2 measured 3.8 feet wide and 0.66 feet in depth. The OHWM measurements were taken outside the influence of the structure to the extent practicable. This stream exhibited poor quality due to a lack of overhanging vegetation, the presence of riffles and pools, and no sinuosity. The substrate was silt. The stream is also classified as a legal drain (Arm 1 of Jacob Ehman Drain). Approximately 434 linear feet (0.037 acre) of UNT 2 is within the survey area. This stream would likely be considered a *Waters of the United States*, because it contributes intermittent overland flow via Little Cicero Creek, into the White River, which is a TNW.

Wetlands:

Twelve wetlands (Wetlands A-G, NZ, NAA, NAG, NAE, and SAU) were identified within the survey area during the field investigation and are discussed below.

Wetland A is a palustrine emergent (PEM) wetland. Wetland A is confined within the roadside depression. Wetland A is located just south of 276th Street, near UNT 1. Wetland A is 0.022 acre in size. Wetland A is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland A would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the Indiana Department of Environmental Management (IDEM). Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP 4 and DP 5) were taken to determine the boundaries of Wetland A. A discussion of data points 4 and 5 is provided below.

Data point 4 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point 4 was clear weed (*Pilea pumila*) and common wood sedge (*Carex blanda*). Clear weed (*Pilea pumila*) is a facultative wetland (FACW) plant, and common wood sedge (*Carex blanda*) is a facultative (FAC) plant. This data point exhibited one hydric soil indicator (Redox Dark Surface F6). This data point exhibited two primary wetland hydrology indicators (Surface Water A1 and Saturation A3).

Data point 5 did not exhibit all three criteria to be considered within a wetland. The dominant vegetation observed at data point 5 was reed canary grass (*Phalaris arundinacea*) which is a FACW species. This data point did not exhibit hydric soil or wetland hydrology and would not have been considered within a wetland.

Wetland B is a palustrine emergent (PEM) wetland. Wetland B is confined within the Little Cicero Creek’s floodplain. Wetland B is located just north of the intersection of 276th Street and US 31. Wetland B is 0.033 acre in size. Wetland B is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland B would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway

and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP 6 and DP 7) were taken to determine the boundaries of Wetland B. A discussion of data points 6 and 7 is provided below.

Data point 6 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point 6 was broad leaved cattail (*Typha latifolia*) and soft stem bulrush (*Schoenoplectus tabernaemontani*). Both broad leaved cattail (*Typha latifolia*) and soft stem bulrush (*Schoenoplectus tabernaemontani*) are obligate (OBL) plant species. This data point exhibited one hydric soil indicator (Redox Dark Surface F6). This data point exhibited two primary wetland hydrology indicators (Surface Water A1 and Saturation A3).

Data point 7 did not exhibit all three criteria to be considered within a wetland. The dominant vegetation observed at data point 7 was prickly lettuce (*Lactuca serriola*) which is a facultative upland (FACU) species. This data point did not exhibit hydric soil or wetland hydrology and would not have been considered within a wetland.

Wetland C is a palustrine emergent (PEM) wetland. Wetland C is confined within a roadside depression. Wetland C is located at the southern end of the investigation area and extends beyond it; it is bisected by a farm entrance. Wetland C is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland C would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the Indiana Department of Environmental Management (IDEM). Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP 8 and DP 9) were taken to determine the boundaries of Wetland C. A discussion of data points 8 and 9 is provided below.

Data point 8 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point 8 was Torrey’s rush (*Juncus torreyi*), reed canary grass (*Phalaris arundinacea*), and broad leaved cattail (*Typha latifolia*). Both Torrey’s rush (*Juncus torreyi*) and reed canary grass (*Phalaris arundinacea*) are FACW plant species. Broad leaved cattail (*Typha latifolia*) is an OBL plant species. This data point exhibited three hydric soil indicators: Depleted Below Dark Surface (A11), Depleted Matrix (F3) and Redox Dark Surface (F6). This data point exhibited one primary wetland hydrology indicator (Surface Water A1).

Data point 9 did not exhibit all three criteria to be considered within a wetland. The dominant vegetation observed at data point 9 was tall fescue (*Schedonorus arundinaceus*) which is a FACU species. This data point did not exhibit hydric soil or wetland hydrology and would not have been considered within a wetland.

Wetland D is a palustrine emergent (PEM) wetland. Wetland D is confined within the roadside depression. Wetland D is located south of the intersection with 276th Street and US 31. Wetland D is 0.034acre in size. Wetland D is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland D would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP 10 and DP 11) were taken to determine the boundaries of Wetland D. A discussion of data points 10 and 11 is provided below.

Data point 10 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point 10 was Torrey’s rush (*Juncus torreyi*) and reed canary grass (*Phalaris arundinacea*). Torrey’s rush (*Juncus torreyi*) and reed canary grass (*Phalaris arundinacea*) are FACW plant species. This data point exhibited two hydric soil indicators: Depleted Below Dark Surface (A11) and Depleted Matrix (F3). This data point exhibited two primary wetland hydrology indicators (High Water Table and Saturation A3).

Data point 11 did not exhibit all three criteria to be considered within a wetland. The dominant vegetation observed at data point 11 was tall fescue (*Schedonorus arundinaceus*), red fescue (*Festuca rubra*), and sweetscented joe pye weed (*Eutrochium purpureum*). Tall fescue (*Schedonorus arundinaceus*), red fescue (*Festuca rubra*) are both FACU species. Sweetscented joe pye weed (*Eutrochium purpureum*) is a FAC species. This data point did not exhibit hydric soil or wetland hydrology and would not have been considered within a wetland.

Wetland E is a palustrine emergent (PEM) wetland. Wetland E is confined within the roadside depression. Wetland E is located just north of Wetland F. Wetland E is 0.010 acre in size. Wetland E is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland E would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP 12 and DP 13) were taken to determine the boundaries of Wetland E. A discussion of data points 12 and 13 is provided below.

Data point 12 did not exhibit all three criteria to be considered within a wetland, meeting two out of the three criteria to be considered within a wetland. The vegetation criterion was met because the dominant vegetation was reed canary grass (*Phalaris arundinacea*) a FACW species. The wetland hydrology criterion was met because one two secondary indicators (Drainage Patterns B10 and FAC-Neutral Test D5) were observed. However, the data point did not meet the hydric soil criterion because the soil profile displayed a Munsell color of 10 YR 3/2 from 0-10 inches and 10 YR 3/1 from 10-20 inches.

Data point 13 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point 13 was narrow leaved cattail (*Typha angustifolia*) an OBL plant species. This data point exhibited one hydric soil indicator: Loamy Gleyed Matrix (F2). This data point exhibited one primary wetland hydrology indicator (Surface Water A1).

Wetland F is a palustrine emergent (PEM) wetland. Wetland F is within Little Cicero Creek’s floodplain. Wetland F is located north of Little Cicero Creek, on the east side of US 31. Wetland F is 0.023 acre in size. Wetland F is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. However, there is a drainage connection between Wetland F and Little Cicero Creek (See Photo Orientation Map 8 and Water Resource Map 3).

Wetland F would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP 14 and DP 15) were taken to determine the boundaries of Wetland F. A discussion of data points 14 and 15 is provided below.

Data point 14 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point 14 was reed canary grass (*Phalaris arundinacea*), a FACW species. This data point exhibited one hydric soil indicator: Redox Dark Surface (F6). This data point exhibited two primary wetland hydrology indicators (Surface Water A1 and Saturation A3).

Data point 15 did not exhibit all three criteria to be considered within a wetland, meeting two out of the three criteria to be considered within a wetland. The vegetation criterion was met because the dominant vegetation was reed canary grass (*Phalaris arundinacea*) a FACW species. Data point 15 did not meet hydric soil or wetland hydrology indicators.

Wetland G is a palustrine emergent (PEM) wetland. Wetland G is confined within a roadside depression. Wetland G is located just north of Wetland E. Wetland G is 0.050 acre in size. Wetland G is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland G would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP 16 and DP 17) were taken to determine the boundaries of Wetland G. A discussion of data points 17 and 18 is provided below.

Data point 17 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point 14 was Torrey's rush (*Juncus torreyi*), fox sedge (*Carex vulpinoidea*), and tall fescue (*Schedonorus arundinaceus*). Torrey's rush (*Juncus torreyi*) and fox sedge (*Carex vulpinoidea*) are FACW species. tall fescue (*Schedonorus arundinaceus*) is a FACU species. This data point exhibited one hydric soil indicator: Depleted Below Dark Surface (A11). This data point exhibited three secondary wetland hydrology indicators (Drainage Patterns B10, Geomorphic Position D2, FAC-Neutral Test D5).

Data point 18 did not exhibit all three criteria to be considered within a wetland, because it did not meet the hydric vegetation criteria, hydric soil, or hydrology indicators. The vegetation criterion was not met because the dominant vegetation was tall fescue (*Schedonorus arundinaceus*) a FACU plant.

Wetland NZ is a palustrine emergent (PEM) wetland. Wetland NZ is adjacent to UNT 3. Wetland NZ is 0.02 acre in size. Wetland NZ is adjacent to UNT 2, a likely Waters of the United States. Therefore, Wetland NZ would likely be considered a Waters of the United States. Two data points (DP NZ1 and DP NZ2) were taken to determine the boundaries of Wetland NZ. A discussion of data points NZ1 and NZ2 is provided below.

Data point NZ1 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point NZ1 was reed canary grass (*Phalaris arundinacea*) a FACW species. This data point exhibited two primary wetland hydrology indicators (Surface Water A1, and Saturation A3). There was a restrictive layer (riprap) that prevented a soil profile from being taken. The data point was taken in Brookston silty clay loam, a hydric soil. Since the point met all wetland hydrology, wetland vegetation, and is listed in a mapped hydric soil, the data point would likely be considered within a wetland.

Data point NZ 2 did not exhibit all three criteria to be considered within a wetland, because it did not meet the hydric vegetation criteria, hydric soil, or hydrology indicators. The vegetation criterion was not met because the dominant vegetation was red fescue (*Festuca rubra*) and smooth brome (*Bromus inermis*) which are both a FACU plants.

Wetland NAA is a palustrine emergent (PEM) wetland. Wetland NAA is confined within a roadside ditch, south of the intersection of US 31 and 281st Street. Wetland NAA is 0.02 acre in size. Wetland NAA is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland NAA would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an "exempt isolated wetland." Two data points (DP NAA 1 and DP NAA2) were taken to determine the boundaries of Wetland NAA. A discussion of data points NAA 1 and NAA 2 is provided below.

Data point NAA1 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point NAA 1 was barnyard grass (*Echinochloa crus-galli*) a FACW species. This data point exhibited three primary wetland hydrology indicators (High Water Table A2, Saturation A3, and Algal Mat or Crust B4) The data point exhibited one hydric soil indicator: Depleted Matrix (F3).

Data point NAA 2 did not exhibit all three criteria to be considered within a wetland, because it did not meet the hydric vegetation criteria, hydric soil, or hydrology indicators. The vegetation criterion was not met because the dominant vegetation was tall fescue (*Schedonorus arundinaceus*) and Indian grass (*Sorghastrum nutans*) which are both a FACU species.

Wetland NAE is a palustrine emergent (PEM) wetland. Wetland NAE is confined within a roadside ditch, north of the intersection of US 31 and 276th Street. Wetland NAE is 0.1 acre in size. Wetland NAE is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland NAE would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an "exempt isolated wetland." Two data

points (DP NAE 1 and DP NAE 2) were taken to determine the boundaries of Wetland NAA. A discussion of data points NAE 1 and NAE 2 is provided below.

Data point NAE 1 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point NAE 1 was barnyard grass (*Echinochloa crus-galli*) a FACW species. This data point exhibited three primary wetland hydrology indicators (Surface Water A1, High Water Table A2, and Saturation A3) The data point exhibited one hydric soil indicator: Depleted Matrix (F3).

Data point NAE 2 did not exhibit all three criteria to be considered within a wetland, because it did not meet the hydric vegetation criteria, hydric soil, or hydrology indicators. The vegetation criterion was not met because the prevalence index (P.I.) value was 3.6, which exceeds the maximum P.I. value (3.0). The dominant vegetation was tall fescue (*Schedonorus arundinaceus*) a FACU species and Kentucky bluegrass (*Poa pratensis*) a FAC species.

Wetland NAG is a palustrine emergent (PEM) wetland. Wetland NAG is in a roadside depression south of Wetland D, Wetland NAG is 0.007 acre in size and has formed around Roadside Erosional Feature No. 2. Wetland NAG is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland NAG would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP NAG 1 and DP NAG 2) were taken to determine the boundaries of Wetland NAG. A discussion of data points NAG 1 and NAG 2 is provided below.

Data point NAG 1 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point NAG 1 was reed canary grass (*Phalaris arundinacea*), a FACW species. This data point exhibited one primary wetland hydrology indicator (Saturation A3) The data point exhibited one hydric soil indicator: Redox Dark Surface (F6).

Data point NAG 2 did not exhibit all three criteria to be considered within a wetland, because it did not meet the hydric vegetation criteria, hydric soil, or hydrology indicators. The vegetation criterion was not met because the prevalence index (P.I.) value was 3.73, which exceeds the maximum P.I. value (3.0). The dominant vegetation was tall fescue (*Schedonorus arundinaceus*) a FACU species and Kentucky bluegrass (*Poa pratensis*) a FAC species.

Wetland SAU is a palustrine emergent (PEM) wetland. Wetland NAG is in a roadside ditch west of Wetland C, Wetland NAG is 0.013 acre in size. Wetland SAU is not directly abutting a water of the U.S. and is not within an area inundated by flooding water in a typical year. Therefore, it is not likely a water of the U.S. but may be considered a water of the State. Wetland SAU would likely be classified as a Class I wetland because at least 50% of the wetland has been disturbed by the roadway and has low biodiversity; it would likely be under the jurisdiction of the IDEM. Therefore, it is potentially an “exempt isolated wetland.” Two data points (DP SAU 1 and DP SAU 2) were taken to determine the boundaries of Wetland SAU. A discussion of data points SAU 1 and SAU 2 is provided below.

Data point SAU 1 exhibited all three criteria to be considered within a wetland. The dominant vegetation observed at data point NAG 1 was softstem bullrush (*Schoenoplectus tabernaemontani*), an OBL species and big bluestem (*Andropogon gerardii*) a FAC species. This data point exhibited one primary wetland hydrology indicator (Saturation A3). The data point exhibited one hydric soil indicator: Redox Dark Surface (F6).

Data point SAU 2 did not exhibit all three criteria to be considered within a wetland, because it did not meet the hydric vegetation criteria or hydrology indicators. The vegetation criterion was not met because the prevalence index (P.I.) value was greater than 3.0. Vegetation passed the dominance test (66.7% of species are FAC or wetter), but did not pass the P.I. The P.I. was 3.5, which exceeds the maximum P.I. value (3.0). The dominant vegetation was tall fescue (*Schedonorus arundinaceus*), a FACU species, Kentucky bluegrass (*Poa pratensis*), a FAC species, and big bluestem (*Andropogon gerardii*), a FAC species. It also did not meet any hydric soil indicators.

Upland Data Points:

Six upland data points (DPs 1-3,19-21) were taken to confirm the absence of wetlands at various locations within the project area and are discussed below.

DP 1 is located south of Little Cicero Creek, west of US 31. The area did not meet all three indicators because it lacked hydric soils and wetland hydrology. The dominant vegetation was reed canary grass (*Phalaris arundinacea*), a FACW plant species. DP 1 was taken to verify that the area, mapped as a NWI polygon, was not a wetland (Photo Orientation Map No. 7).

DP 2 is located west of Wetland B, within a mapped NWI polygon. The area did not meet all three criteria to be considered within a wetland because it lacked hydric soils. The dominant vegetation at DP 2 was reed canary grass (*Phalaris arundinacea*), a FACW plant species. DP 2 met the wetland hydrology criterion because two secondary indicators (Drainage Patterns B10 and FAC-Neutral Test D5) were observed. The Little Cicero Creek floodplain is a flat, broad, homogenous area. The entire area was walked and DP2 is representative of the wooded floodplain area west of US 31. DP 2 was taken to show typical soil, vegetation, and hydrological conditions within the entire area mapped as a NWI polygon, and verify that the area was not a wetland (Photo Orientation Map No. 7).

DP 3 is located southwest of Wetland A. The area did not meet all three criteria to be considered within a wetland because it lacked hydric soils. The dominant vegetation at DP 3 was reed canary grass (*Phalaris arundinacea*), a FACW plant species. DP 3 met the hydrology criterion because two primary indicators were observed (Surface Water A1 and High Water Table A2). DP 3 was taken to verify that the area, mapped as a NWI polygon, was not a wetland.

DP 16 is located within a farmed field northeast of Wetland F. DP 16 did not exhibit all three criteria to be considered within a wetland, because it did not meet the hydric soil or hydric vegetation criteria. The vegetation criterion was not met because the dominant vegetation was soybean (*Glycine max*) an upland (UPL) plant. Data point 16 met the wetland hydrology criterion because two primary indicators were met (Surface Water A1 and Water-Stained Leaves B9).

DP 19 is located west of US 31, just north of Little Cicero Creek. The area did not meet all three criteria to be considered within a wetland because it lacked hydric soils. The dominant vegetation at DP 3 was giant ragweed (*Ambrosia trifida*) and creeping jenny (*Lysimachia nummularia*). Giant ragweed (*Ambrosia trifida*) is a FAC plant species and creeping jenny (*Lysimachia nummularia*) is a FACW plant species. DP 19 met the hydrology criterion because secondary primary indicators were observed (Geomorphic Position D2 and FAC-Neutral Test D5). DP 19 was taken to verify that the area, mapped near a NWI polygon, was not a wetland.

DP 20 is located north of UNT 1 and west of Little Cicero Creek. The area did not meet all three criteria to be considered within a wetland because it lacked hydric soils. The dominant vegetation at DP 20 was careless weed (*Amaranthus palmeri*) and barnyard grass (*Echinochloa crus-gali*). careless weed (*Amaranthus palmeri*) is a FACU plant species and barnyard grass (*Echinochloa crus-gali*) is a FACW plant species. DP 20 met the hydrology criterion because one primary indicator was observed (Algal Mat or Crust B4). DP 20 was taken to verify that the adjacent agricultural field was not a farmed wetland.

DP 21 is located west of Wetland F in Little Cicero Creek's Floodplain. The area did not meet all three criteria to be considered within a wetland because it lacked hydric soils. The dominant vegetation at DP 21 was reed canary grass (*Phalaris arundinacea*), a FACW plant species. DP 21 met the hydrology criterion because two secondary indicators were observed (Geomorphic Position D2 and FAC-Neutral Test D5). DP 3 was taken to verify that the area, mapped as a NWI polygon, was not a wetland.

Open Water:

No open water features are located within the survey area.

Roadside Ditches (RSDs):

Two roadside ditches were identified within the survey area, a discussion of these features follows below.

RSD 1 is located on the northwest side of the bridge carrying US 31 over Little Cicero Creek. RSD 1 did not exhibit OHWM characteristics and is not a captured stream. Therefore, this roadside ditch is not likely to be considered a *Waters of the United States*.

RSD 2 is located on the southwest side of the bridge carrying US 31 over Little Cicero Creek. RSD 1 did not exhibit OHWM characteristics and is not a captured stream. Therefore, this roadside ditch is not likely to be considered a *Waters of the United States*.

Roadside Erosional Features:

Two roadside erosional features (REF)s were identified within the survey area. A discussion of the roadside erosional features 1-2 is provided below.

REF 1 is located west of Wetland E. The feature formed due to sheet flow off of US 31.

REF 2 is located south of Wetland D. The feature formed as part of sheet flow from the adjacent agricultural field (east of the feature). Water flows under US 31.

**Table 1: Stream Summary
US 31 and 276th Street Intersection Improvement Project
Des. No. 1901797
Hamilton County, Indiana**

Stream Name	Photos	Lat/Long	OHWM Width (feet)	OHWM Depth (feet)	USGS Blue-line?	Quality	Riffles/ Pools?	Substrate	Likely Water of U.S.?
Little Cicero Creek	50,76,79, 80, 96-98, 100, 102, 108-111, 123,124	40.190565 °N, -86.130117 °W	20.6	1.9	Yes-- Perennial	Average	No	sand, silt, and gravel	Yes
UNT 1	58-66	40.189172 °N, -86.133083 °W	5.6	1	Yes-- Intermittent	Poor	No	Silt	Yes
UNT 2	137, 138, 144-146	40.198404 °N, -86.128083 °W	3.8	0.66	Yes-- Intermittent	Poor	No	Silt	Yes

Table 2: Wetland Summary
US 31 and 276th Street Intersection Improvement Project
Des. No. 1901797
Hamilton County, Indiana

Wetland Name	Photos	Lat/Long	Type	Wetland Quality	Total Area (acres)	Likely Water of U.S.?
Wetland A	55-57, 163,164	40.189004° N -86.133418° W	PEM	Poor	0.022	No
Wetland B	58, 59, 167, 168	40.190091° N -86.128336° W	PEM	Poor	0.033	No
Wetland C	26-30, 171, 172	40.178664 ° N -86.127730° W	PEM	Poor	0.212	No
Wetland D	13-16, 175, 176	40.188779° N -86.127803° W	PEM	Poor	0.034	No
Wetland E	129, 131, 181, 182	40.193650° N -86.127761 ° W	PEM	Poor	0.010	No
Wetland F	120,121, 183, 184	40.192195 ° N -86.127730 ° W	PEM	Poor	0.023	No
Wetland G	134, 135, 189, 190	40.192314 ° N -86.127376 ° W	PEM	Poor	0.050	No
Wetland NZ	198-202	40.19831 ° N -86.12781 ° W	PEM	Poor	0.02	Yes
Wetland NAA	203-210	40.19711 ° N -86.12776 ° W	PEM	Poor	0.02	No
Wetland NAE	213-217	40.1898 ° N -86.12775 ° W	PEM	Poor	0.1	No
Wetland NAG	218-222	40.18803 ° N -86.12777 ° W	PEM	Poor	0.007	No
Wetland SAU	223-228	40.17884 ° N -86.12826 ° W	PEM	Poor	0.013	No

Table 3: Data Point Summary
US 31 and 276th Street Intersection Improvement Project
Des. No. 1901797
Hamilton County, Indiana

Data Point	Vegetation?	Hydric Soil?	Wetland Hydrology?	Wetland?
DP 1	Yes	No	No	No
DP 2	Yes	No	Yes	No
DP 3	Yes	No	Yes	No
DP 4	Yes	Yes	Yes	Yes
DP 5	Yes	No	No	No
DP 6	Yes	Yes	Yes	Yes
DP 7	No	No	No	No
DP 8	Yes	Yes	Yes	Yes
DP 9	No	No	No	No
DP 10	Yes	Yes	Yes	Yes
DP 11	No	No	No	No
DP 12	Yes	No	Yes	No
DP 13	Yes	Yes	Yes	Yes
DP 14	Yes	Yes	Yes	Yes
DP 15	Yes	No	No	No
DP 16	No	No	Yes	No
DP 17	Yes	Yes	Yes	Yes
DP 18	No	No	No	No
DP 19	Yes	No	Yes	No
DP 20	No	No	Yes	No
DP 21	Yes	No	Yes	No
DP AZ 1	Yes	Yes	Yes	Yes
DP AZ 2	No	No	No	No
DP NAA 1	Yes	Yes	Yes	Yes
DP NAA 2	No	No	No	No
DP NAE 1	Yes	Yes	Yes	Yes
DP NAE 2	No	No	No	No
DP NAG 1	Yes	Yes	Yes	Yes
DP NAG 2	No	No	No	No
DP SAU 1	Yes	Yes	Yes	Yes
DP SAU 2	No	Yes	No	No

Conclusions:

A field investigation was conducted on June 23-June 24 and September 22, 2020 by HNTB Corporation and by RQAW Corporation on August 19, September 10, and October 23, 2020 to evaluate the presence of Waters of the United States for the proposed US 31 and 276th Street Intersection Improvement Project in Hamilton County, Indiana. Field observations identified one perennial stream (Little Cicero Creek) and two intermittent streams (UNT 1 and UNT 2 to Little Cicero Creek). Little Cicero Creek contributes perennial surface flow to the White River, a TNW, and would be likely considered a *Waters of the United States*. UNT 1 and UNT 2 contribute intermittent surface flow (via Little Cicero Creek) to the White River and would likely be considered a *Waters of the United States*.

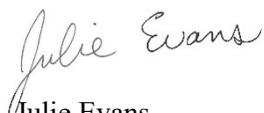
Twelve PEM wetlands were delineated (Wetlands A-G, NZ, NAA, NAE, NAG, and SAU). Wetland NZ would likely be considered a *Waters of the United States* since it abuts UNT 2, a likely WOUS. Wetlands A-G, and Wetlands NAA, NAE, NAG, and SAU would likely be considered Class 1 isolated and may be exempt under 327 IAC 17-1-3 (7).

Every effort should be taken to avoid and minimize impacts to these waterways. If impacts are necessary, then mitigation may be required. The INDOT Ecology and Waterway Permitting Section should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgement based on the guidelines set forth by the Corps.

Acknowledgement:

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

Prepared by:



1/08/2021

Julie Evans
Environmental Scientist
RQAW | Environmental Department
jevans@rqaw.com

Project Location Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Investigation Area

Legend
 Survey Area



Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
 This map is intended to serve as an aid in graphic representation only.
 This information is not warranted for accuracy or other purposes.
 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.

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

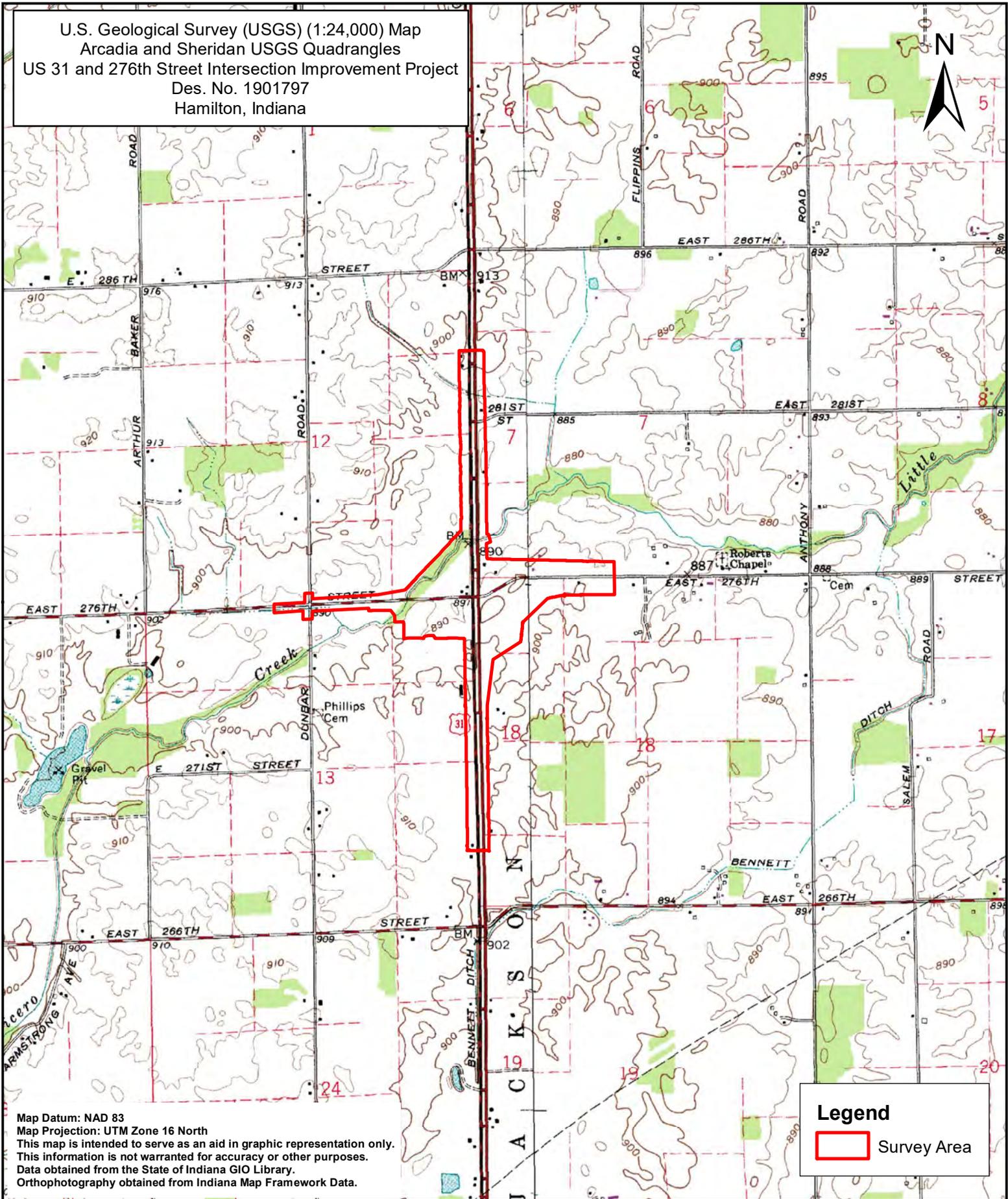


Project Location Map



Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020

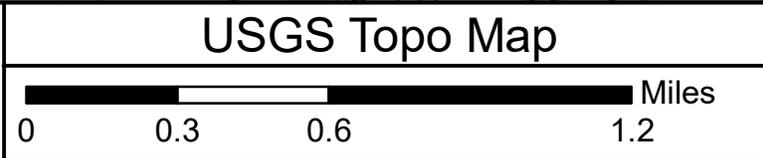
U.S. Geological Survey (USGS) (1:24,000) Map
 Arcadia and Sheridan USGS Quadrangles
 US 31 and 276th Street Intersection Improvement Project
 Des. No. 1901797
 Hamilton, Indiana



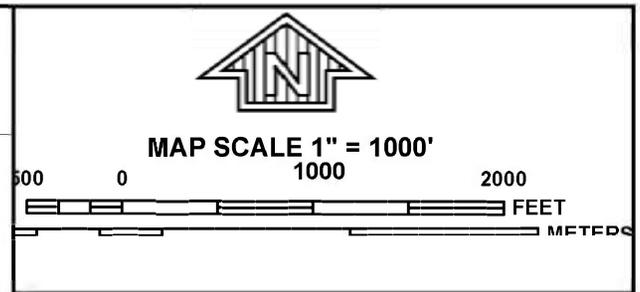
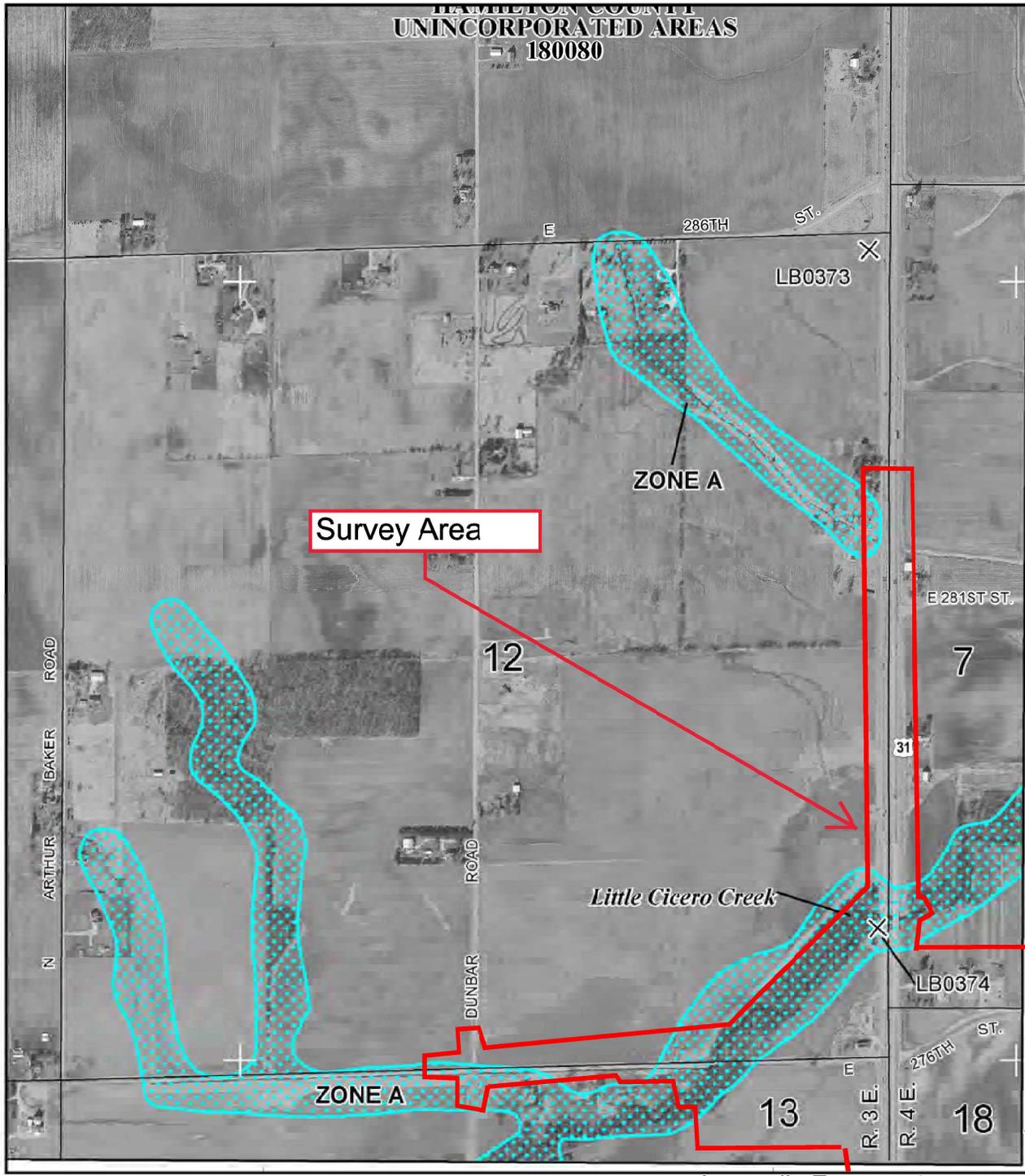
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 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.

Legend

 Survey Area



Location: U.S. 31
 Township: Adams and Jackson
 County: Hamilton
 Date: October 20, 2020



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0010G

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

PANEL 10 OF 300
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HAMILTON COUNTY	180080	0010	G

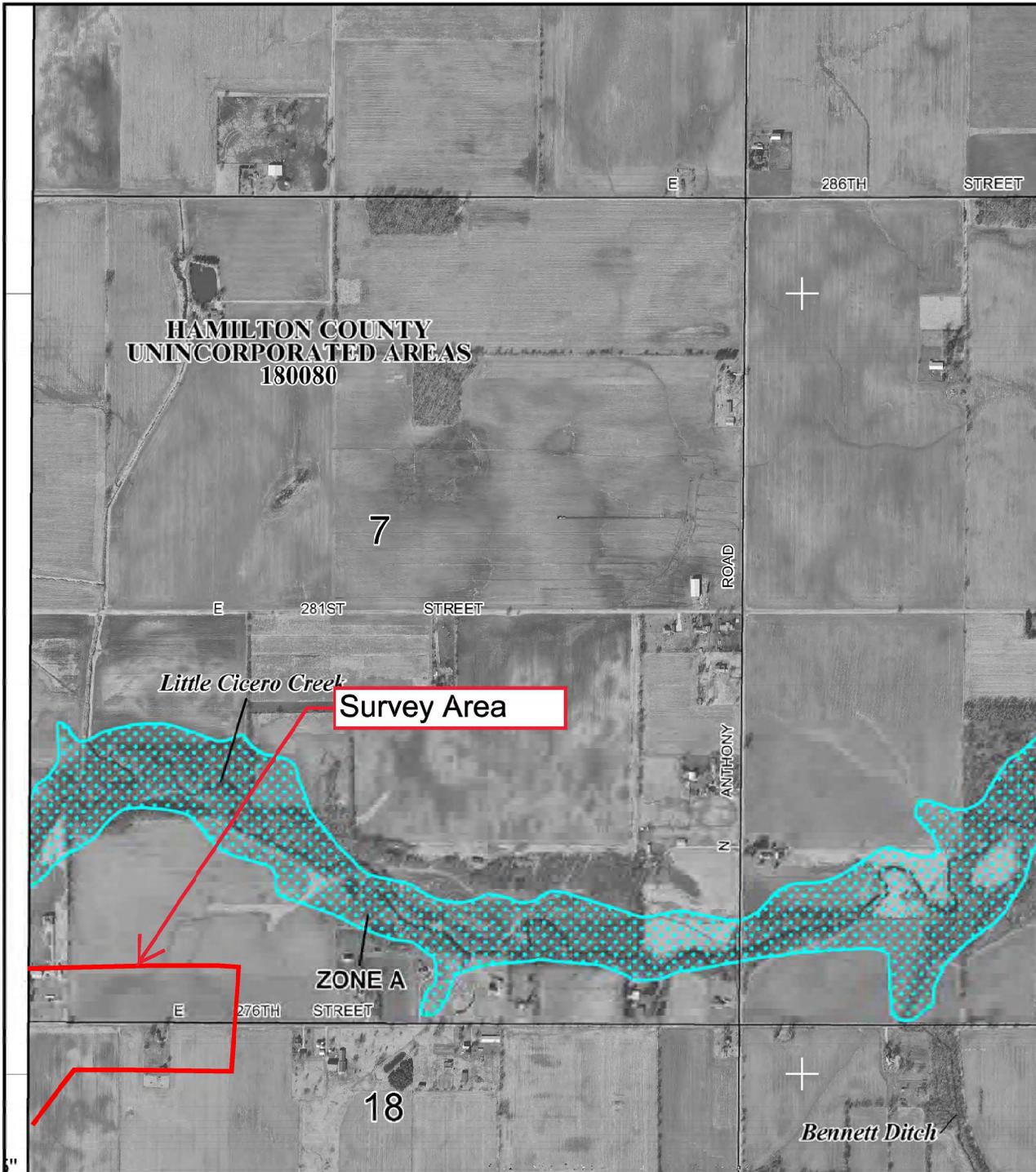
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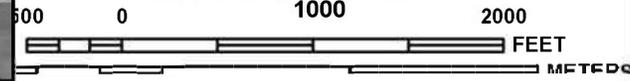
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MAP REVISED
NOVEMBER 19, 2014

Federal Emergency Management Agency

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MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM
NFIP

PANEL 0030G

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

PANEL 30 OF 300
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HAMILTON COUNTY	180080	0030	G

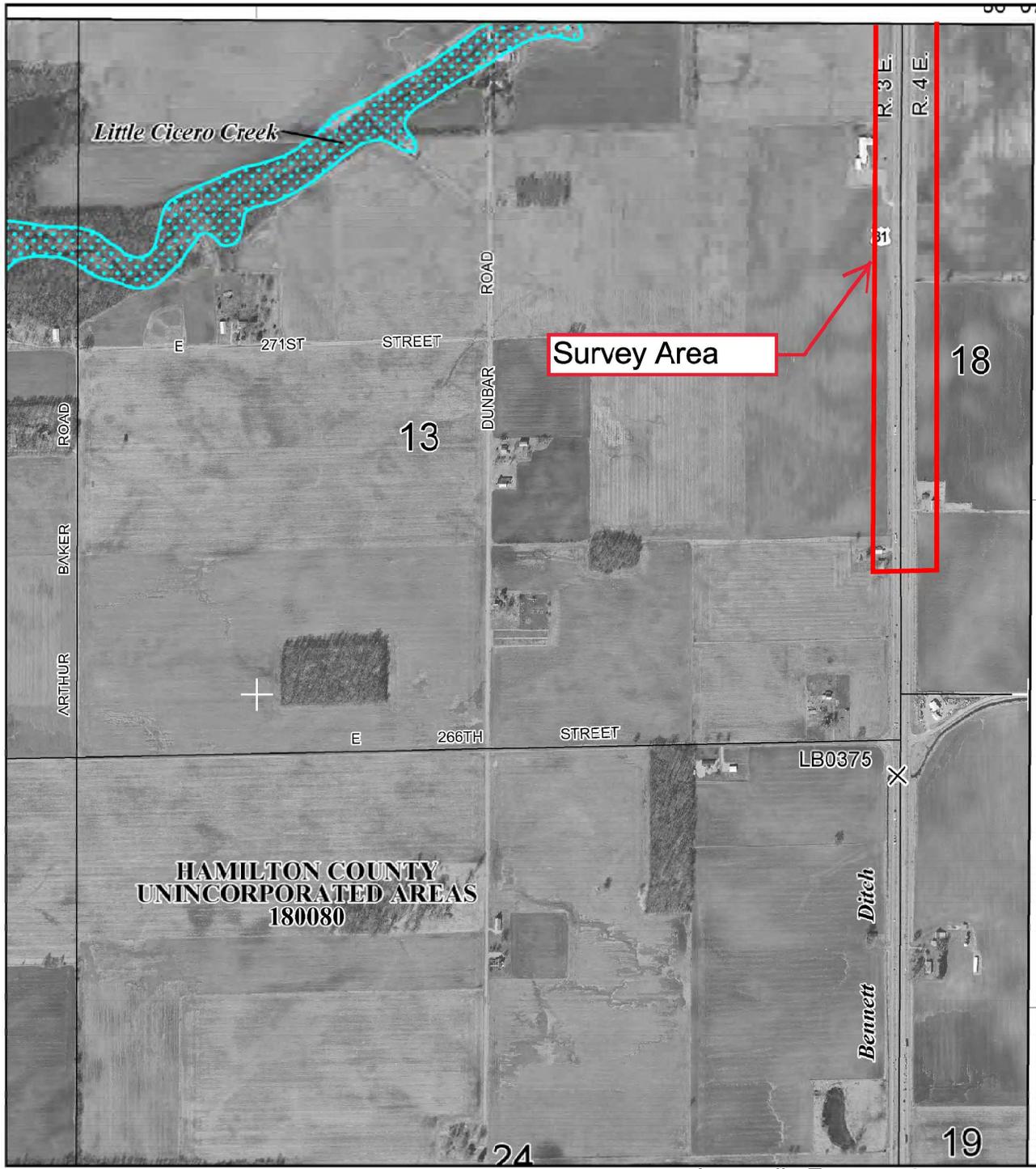
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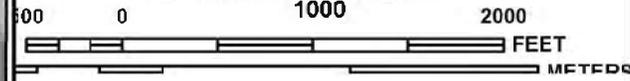
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MAP REVISED
NOVEMBER 19, 2014

Federal Emergency Management Agency

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MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0020G

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

PANEL 20 OF 300
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HAMILTON COUNTY	180080	0020	G

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MAP NUMBER
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MAP REVISED
NOVEMBER 19, 2014

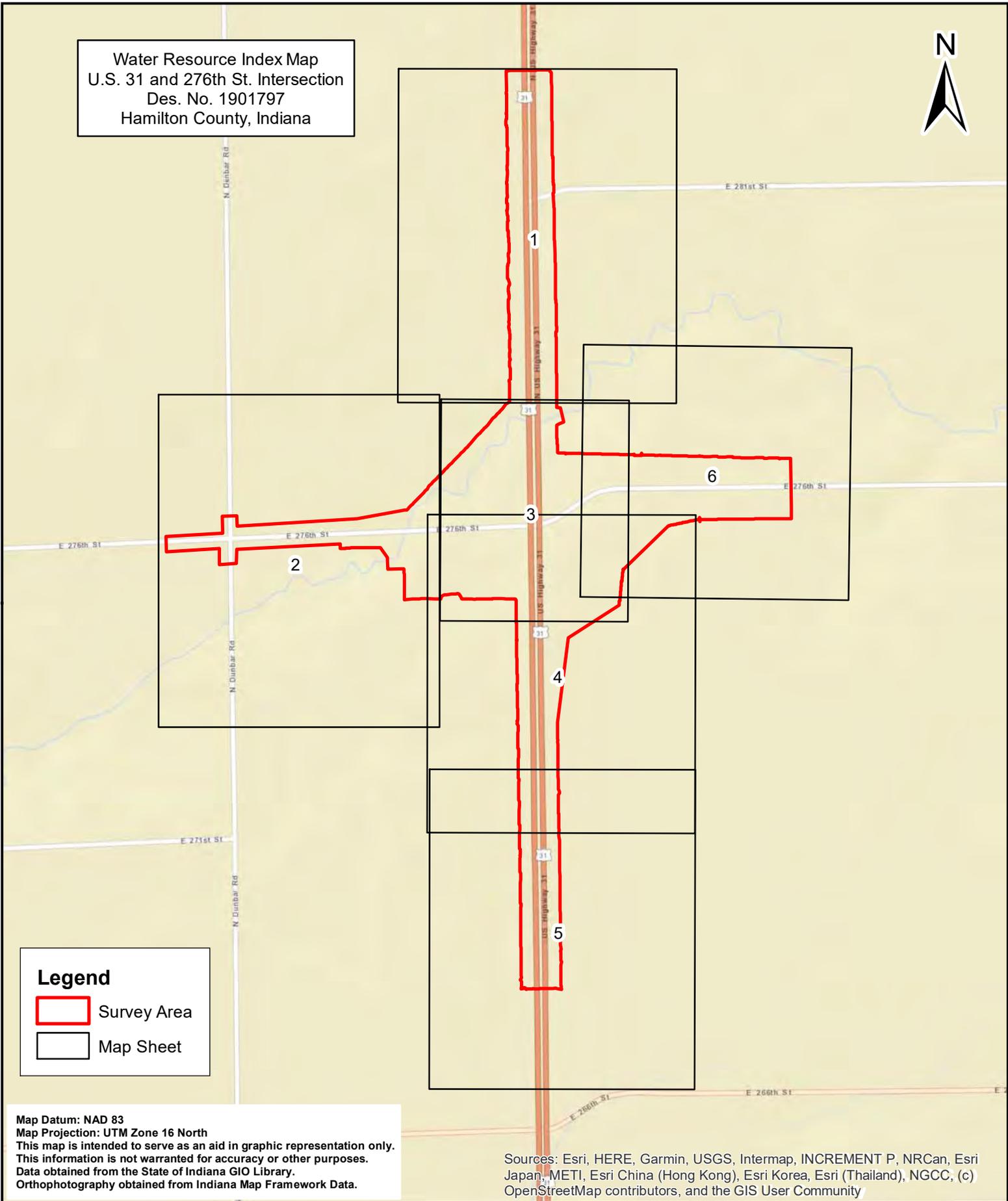
Federal Emergency Management Agency

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HAMILTON COUNTY
UNINCORPORATED AREAS
180080

Survey Area

Water Resource Index Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Legend

- Survey Area
- Map Sheet

Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
 This map is intended to serve as an aid in graphic representation only.
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 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.

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

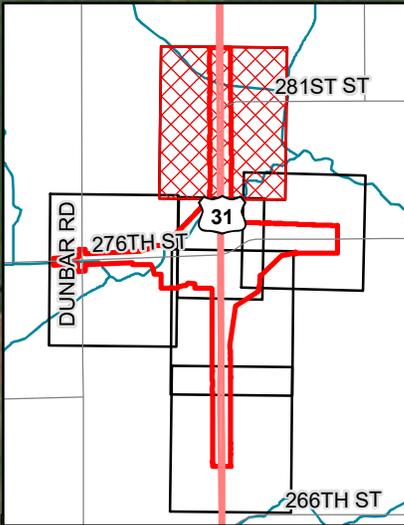


Water Resource Index Map

0 0.15 0.3 0.6 Miles

Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020

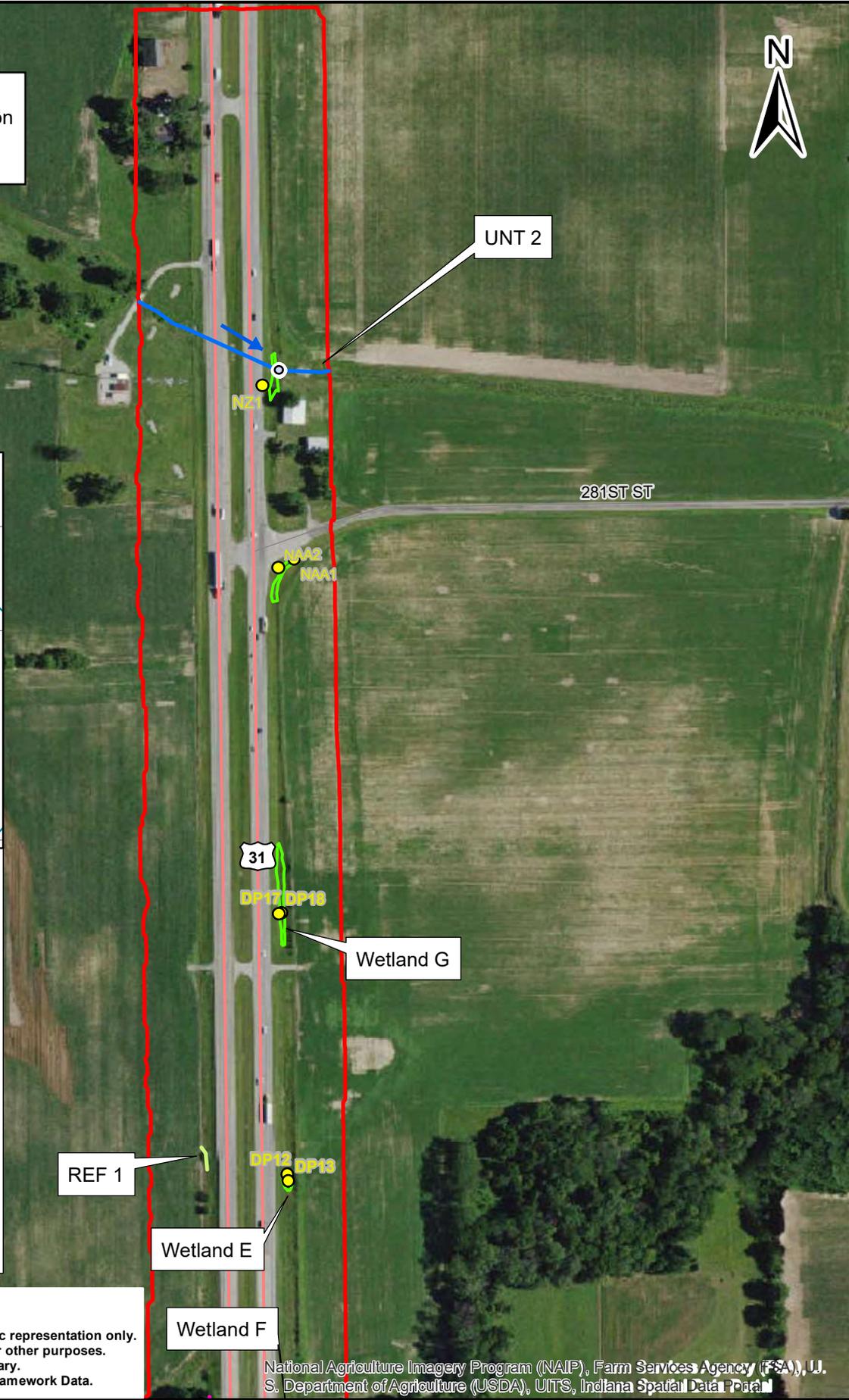
Water Resource Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Legend

- Data Point
- Delineated Wetland
- OHWM Measurement
- Stream
- Open Water
- Roadside Ditch (RSD)
- Roadside Erosional Feature (REF)
- Survey Area
- Current Extent

Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
 This map is intended to serve as an aid in graphic representation only.
 This information is not warranted for accuracy or other purposes.
 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.



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

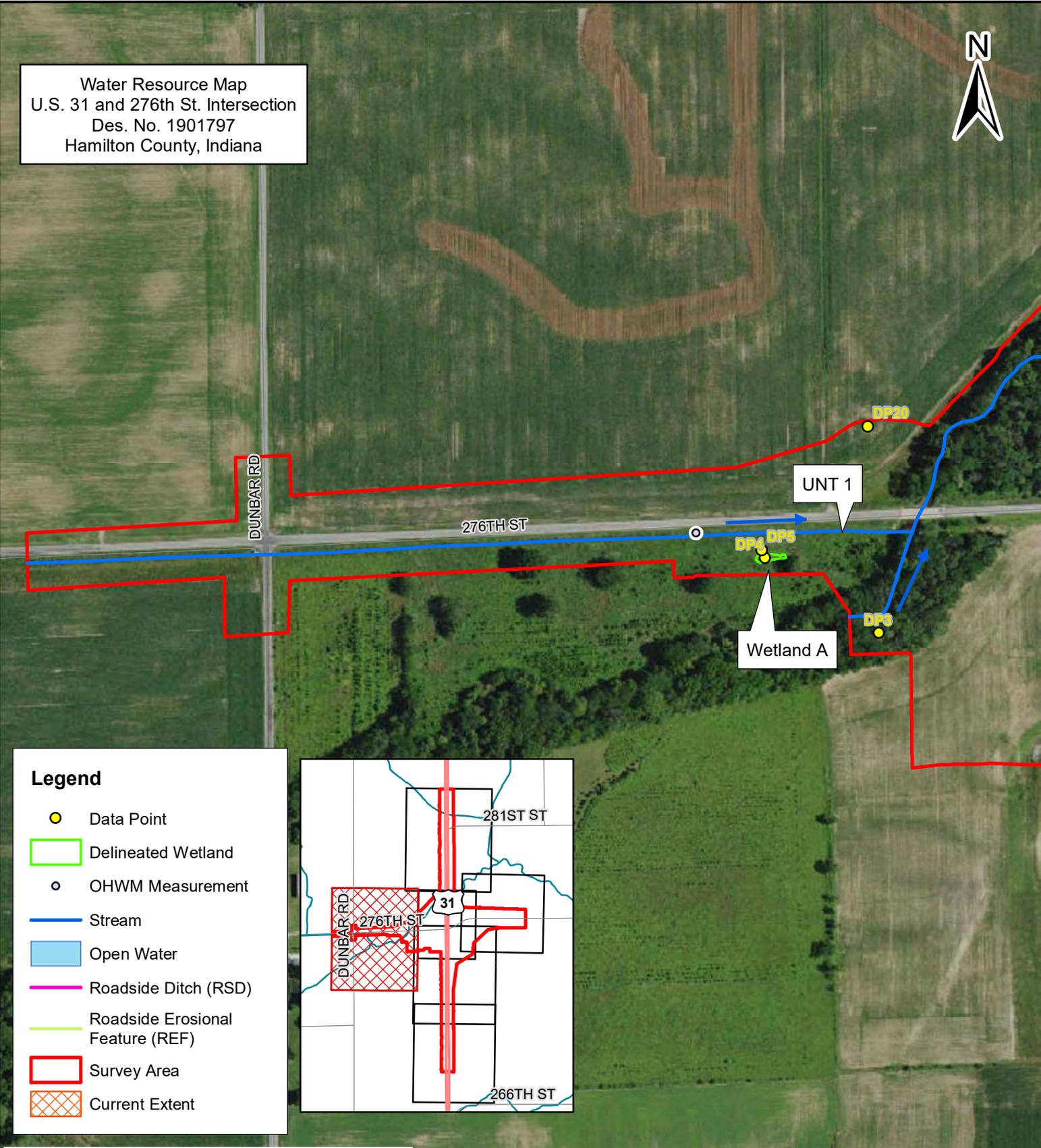


Water Resource Map 1



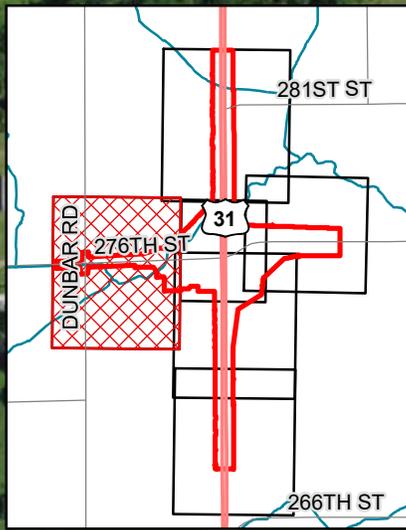
Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020

Water Resource Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Legend

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Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
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National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

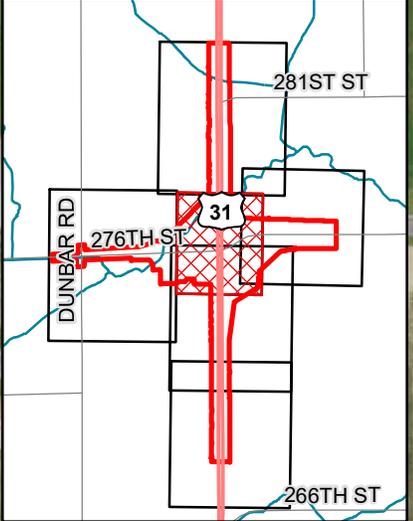
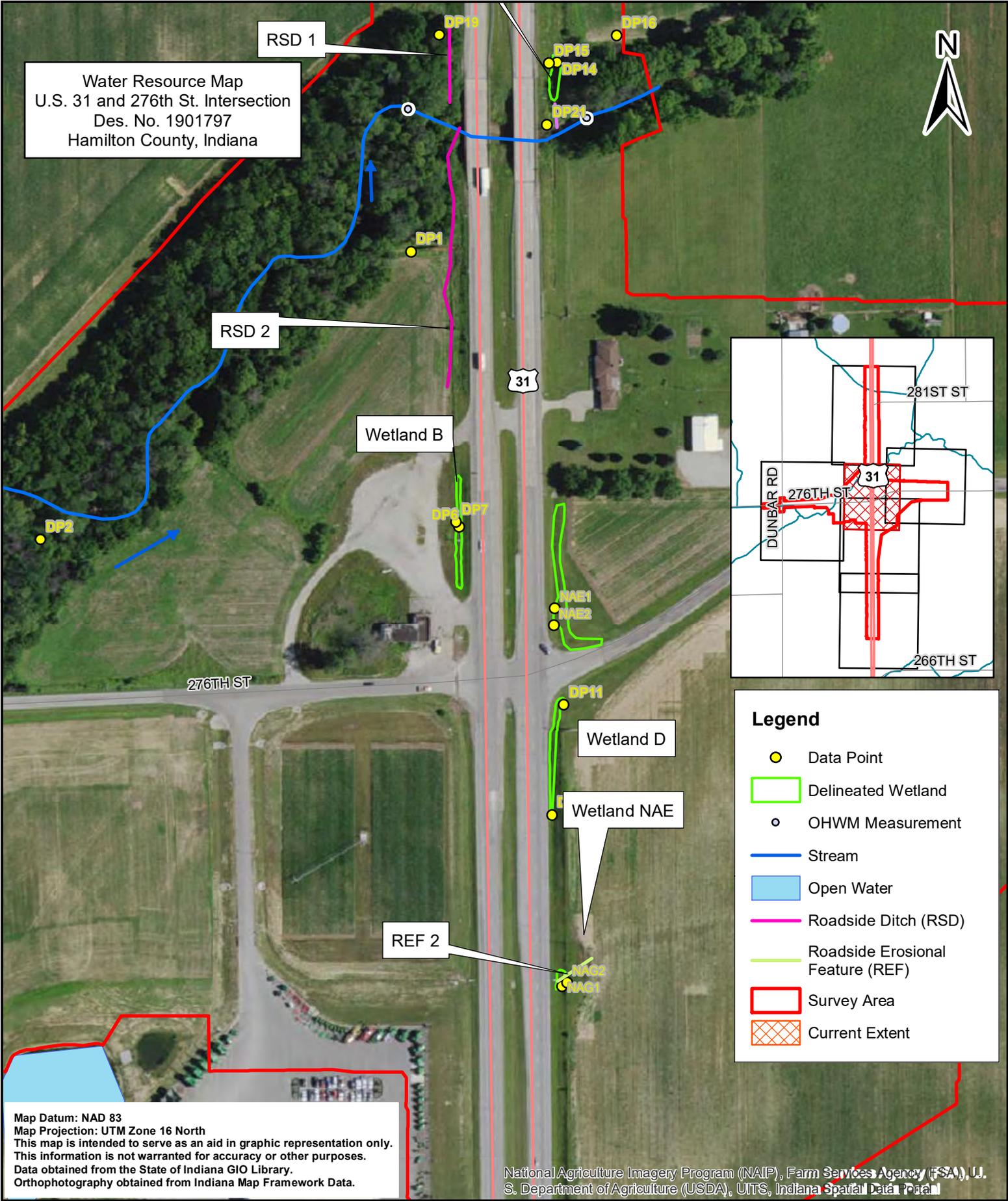


Water Resource Map 2



Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020

Water Resource Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Legend

- Data Point
- Delineated Wetland
- OHWM Measurement
- Stream
- Open Water
- Roadside Ditch (RSD)
- Roadside Erosional Feature (REF)
- Survey Area
- Current Extent

Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
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 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.

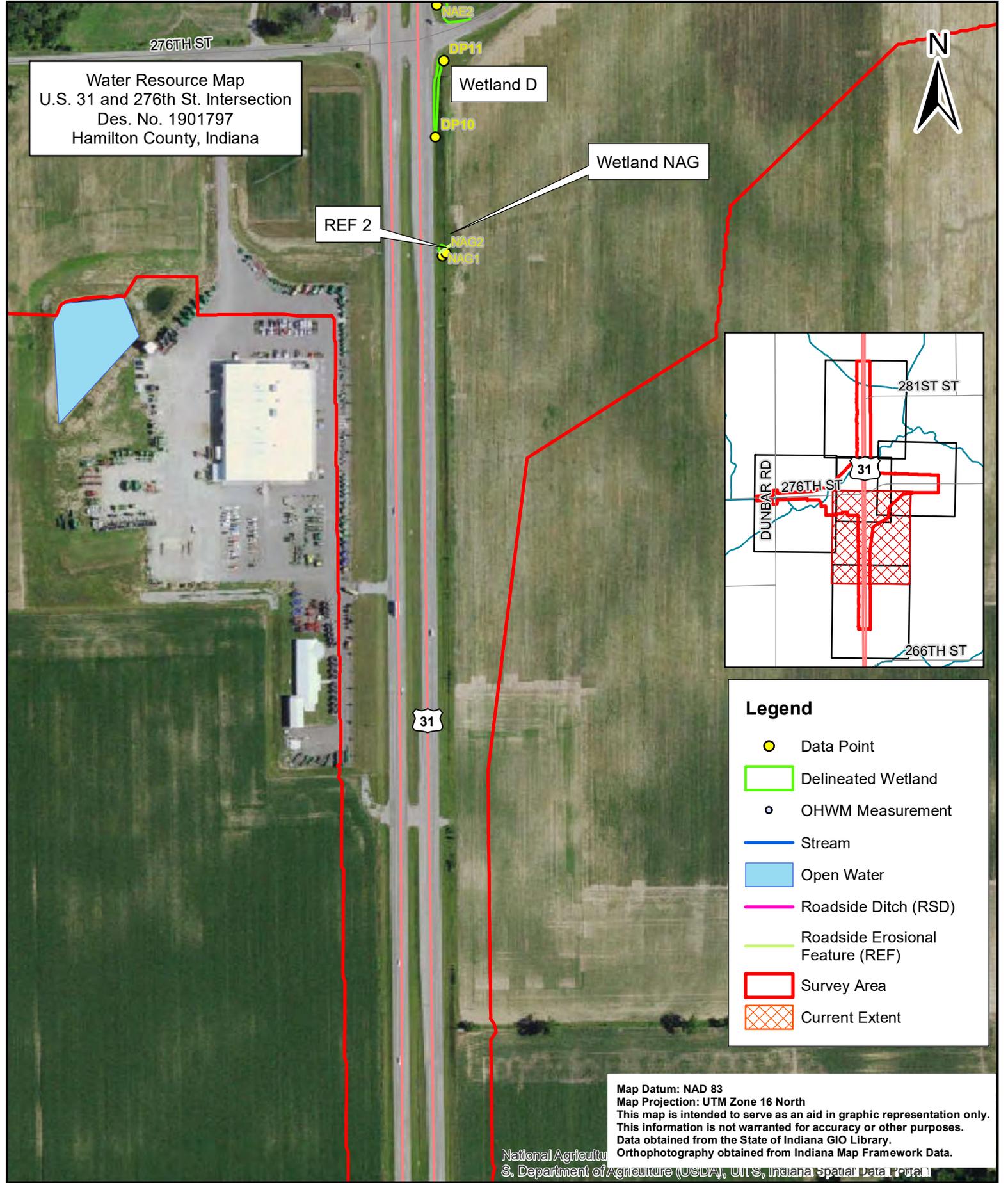
National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



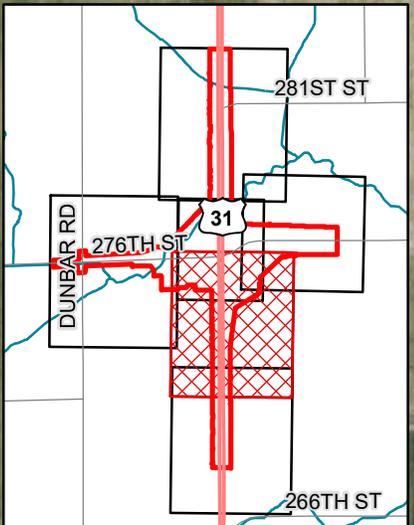
Water Resource Map 3

0 155 310 620 Feet

Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020



Water Resource Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Legend

- Data Point
- Delineated Wetland
- OHWM Measurement
- Stream
- Open Water
- Roadside Ditch (RSD)
- Roadside Erosional Feature (REF)
- Survey Area
- Current Extent

Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
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 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.

National Agriculture
 S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

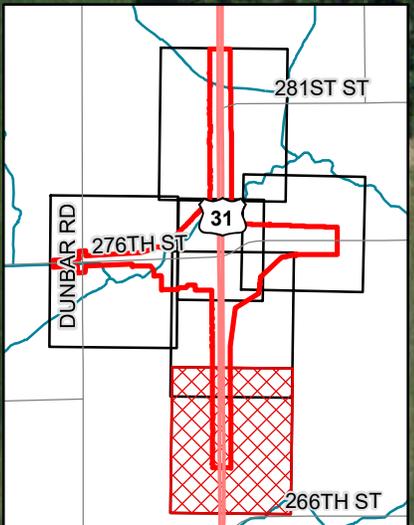


Water Resource Map 4

0 220 440 880 Feet

Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020

Water Resource Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Wetland SAU

SAU1 SAU2

Wetland C

DP0 DP1

Wetland C extends
 outside the survey area

Legend

- Data Point
- Delineated Wetland
- OHWM Measurement
- Stream
- Open Water
- Roadside Ditch (RSD)
- Roadside Erosional Feature (REF)
- Survey Area
- Current Extent

Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
 This map is intended to serve as an aid in graphic representation only.
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National Agriculture
 S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

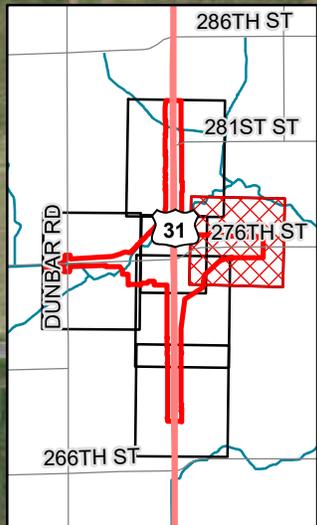
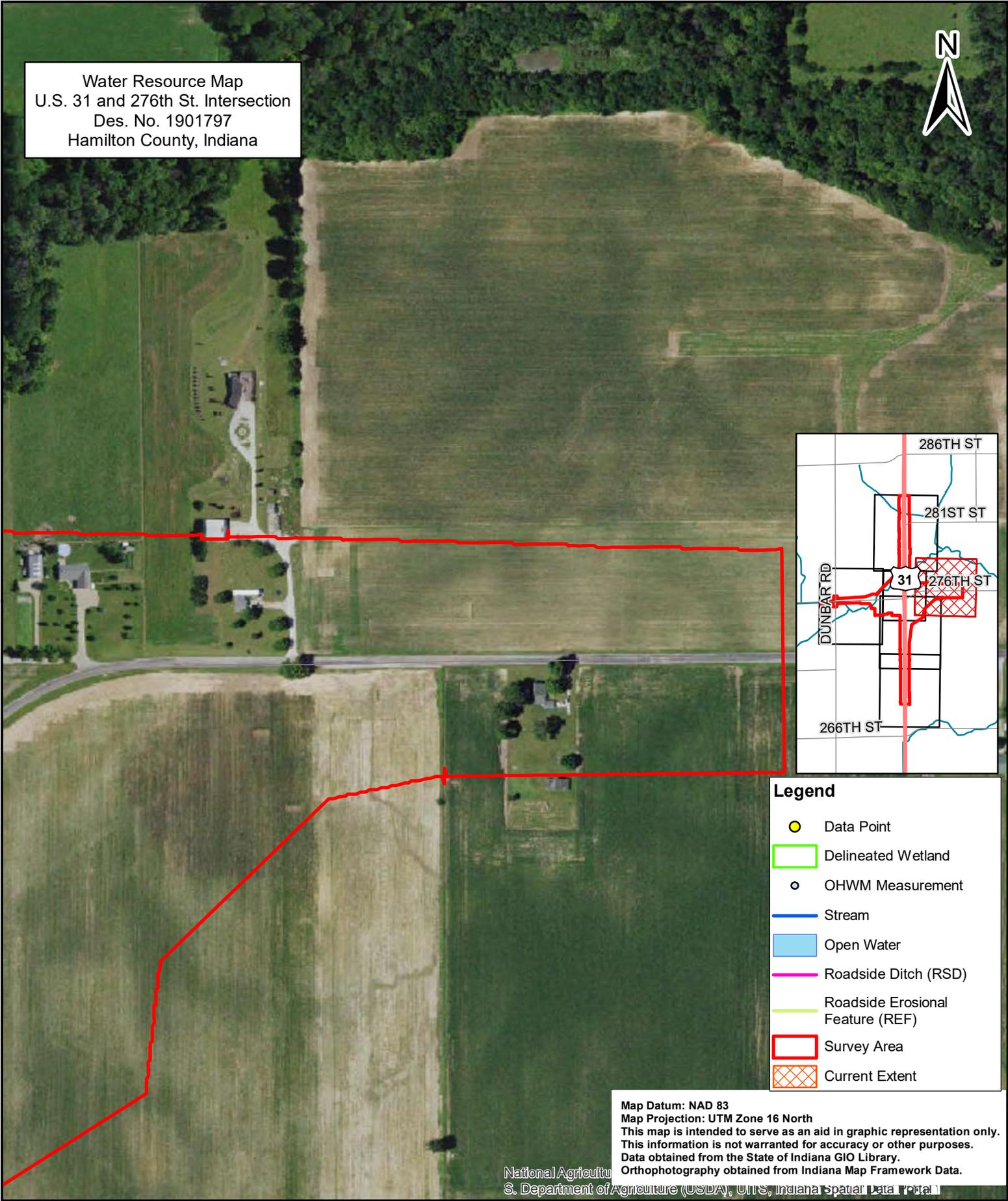


Water Resource Map 5



Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020

Water Resource Map
 U.S. 31 and 276th St. Intersection
 Des. No. 1901797
 Hamilton County, Indiana



Legend

- Data Point
- Delineated Wetland
- OHWM Measurement
- Stream
- Open Water
- Roadside Ditch (RSD)
- Roadside Erosional Feature (REF)
- Survey Area
- Current Extent

Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
 This map is intended to serve as an aid in graphic representation only.
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 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.

National Agriculture
 S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



Water Resource Map 6

0 220 440 880 Feet

Location: U.S. 31
 Township: Adams & Jackson
 County: Hamilton
 Date: October 22, 2020