PARSONS

Appendix F

Water Resources

	Page(s)
Waters of the US Report dated June 4, 2018 (Excerpts)	F-1
Waters of the US Report dated October 4, 2019 (Excerpts)	F-14
IDNR Floodplain Information Portal Map	F-28

Exceprts

PARSONS

Waters of the U.S. Report

Salt Creek Trail, Phase 3A

Brown County, Indiana
Designation Number 1382874

June 4, 2018

delivering a better world

Parsons • 101 West Ohio Street, Suite 2121 • Indianapolis, Indiana 46204 • (317) 616-1000

WATERS OF THE U.S. REPORT
Salt Creek Trail, Phase 3A
Brown County, Indiana
INDOT Designation (Des.) No. 1382874
Prepared By: Thomas J. Warrner, Senior Environmental Planner
June 13, 2018

I: Project Information

Fieldwork Dates:
Fieldwork for this report was conducted on September 28 and 29, 2017 and April 27, 2018.

Contributors:
Gregory Moushon, Senior Environmental Planner
Brock Ervin, Senior Environmental Planner
Hannah Marriott, Associate Environmental Planner
Wade Kimmon, Associate GIS Specialist

Project Location:
Nashville Quadrangle
Section 20 of Township 9 North, Range 3 East
Brown County, Indiana

Project Description:
Brown County, Indiana proposes a pedestrian trail near Nashville, Indiana (page 11). Phase 3A of this project will connect Phase 3B of the Salt Creek Trail (not yet constructed) with a historic bridge relocated by the Indiana Department of Transportation (INDOT). The bridge spans over the North Fork of Salt Creek and connects to another trail segment that ultimately leads to Brown County State Park. The Phase 3A project area is entirely located within the 100-year floodplain of the North Fork of Salt Creek (page 13), most of which is forested. Two commercial properties are present along S.R. 46 near Parkview Road. The Phase 3A trail segment will be approximately 4,000 feet in length. It will be designed to best fit a previously cleared path and to avoid and minimize impacts to existing water resources. The proposed trail will be 10 or 12 feet wide with 2-foot graded outside shoulders.

II: Office Evaluation

Methodology:
The study area was established based on the proposed Phase 3A trail alignment (page 15). This included a buffer around the trail alignment to account for any adjustments needed to minimize resource impacts. The Phase 3B alignment will be detailed under a separate waters of the U.S. report.

A desktop review of the study area was conducted to identify potential waterways (streams, wetlands, ponds, etc.). This included a review of historic and recent aerial photography for any areas with a water signature or a sharp change in vegetation. Any such areas were flagged for field follow-up. National Wetlands Inventory (NWI) mapping, floodplain mapping, United States Geological Survey (USGS) topographic mapping, and mapped soil units were also reviewed. Any noted items were flagged for field review.

Aerial Photography:
Based on current and historical aerial photography, most of the study area is currently forested (page 15). The North Fork of Salt Creek is clearly visible around both the east and west boundaries of the study area, but no other stream signatures were noted.

USGS Mapping:
During review of USGS 7.5-minute series topographic mapping (page 12), one perennial stream (solid blue-line) and one intermittent stream (dashed blue-line) were noted within the study area. The perennial stream corresponds to the North

Fork of Salt Creek, which is present along both the east and west boundaries of the study area. The intermittent stream is an unnamed tributary to the North Fork of Salt Creek.

NWI and Floodplain Mapping:

During review of the NWI dataset, one NWI mapped wetland polygon was identified within the study area (page 13). This directly abuts the eastern bank the North Fork of Salt Creek and will not be impacted by the proposed project. A second NWI polygon is located near, but outside of, the southern boundary of the study area and correlates to a pond. One NWI mapped line is located along the eastern and western boundaries of the study area. This line corresponds to the North Fork of Salt Creek. Two streams are mapped within the study area and correspond to the previously discussed USGS mapped features. Finally, the entire study area lies within the 100-year floodplain of the North Fork of Salt Creek (page 13).

Mapped Soil Units:

The Natural Resources Conservation Service (NRCS) classifies soil types as follows: hydric (100%), predominantly hydric (66-99%), partially hydric (33-65%), predominantly non-hydric (1-32%), and not hydric (0%). According to the Soil Survey Geographic (SSURGO) Database for Brown County, Indiana, most of the study area is classified as having "not hydric" soil types (Table 1 and page 14). A narrow band classified as "predominately non-hydric" intersects a portion of the study area in two locations.

Table 1: Mapped Soil Units within the Study Area

Soil Name	Abbreviation	Hydric Classification
Beanblossom channery silt loam, occasionally flooded	Be	Not Hydric (0%)
Berks-Trevlac-Wellston complex, 20 to 70 percent slopes	BgF	Not Hydric (0%)
Haymond silt loam, frequently flooded	Hc	Not Hydric (0%)
Steff silt loam, frequently flooded, 0-2% slopes	Sf	Not Hydric (0%)
Stendal silt loam, frequently flooded, 0-2% slopes	St	Predominantly Non-Hydric (1-32%)

III: Field Reconnaissance

Methodology:

Parsons staff conducted field investigations on September 28 and 29, 2017 and April 27, 2018 to determine the presence of waterways, including streams, lakes, ponds, and wetlands, within the study area. The entire study area, as well as its immediate surroundings, were reviewed for resources via a walking survey. All areas flagged during desktop review were assessed and documented. When observed, features located adjacent to, but outside of the study area were noted. A resource map showing all identified features is attached for reference (page 15).

The ordinary high-water mark (OHWM) of each stream was determined using a measuring tape. A hand-held GPS unit (Trimble Geo 7 Series) was used to collect the location of each identified stream. The upstream drainage area of each stream was calculated using StreamStats Version 4.2.0 (USGS, 2018), if available. Both qualitative and quantitative assessments of stream quality were done within the study area. Quantitative assessments (pages 42 to 45) were conducted based on each stream's drainage area using the guidelines outlined in either the headwater habitat evaluation index (HHEI) (Ohio EPA, 2012) or qualitative habitat evaluation index (QHEI) (Ohio EPA, 2006).

Vegetation, soil, and hydrology data were collected using the routine delineation method as described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) (USACE 2012). Wetland indicator statuses for plants were obtained from the National Wetland Plant List (Lichvar et al. 2016). Data forms for each wetland are included in this report for reference (pages 46 to 135). A hand-held GPS unit (Trimble Geo 7 Series) was used to collect the boundary of each identified wetland, as well as all data points. A qualitative assessment of each wetland's quality was conducted, which included rating them (poor, average, or excellent) based on ecological function, size, species diversity, presence of invasive species, and amount of disturbance.

Photographs were taken throughout the study area. This included photographs of each resource identified within the study area (pages 20 to 41). Photo orientation mapping is included for additional reference (pages 17 to 19).

Streams:

Field investigations resulted in the identification of two likely jurisdictional streams totaling 2,532 linear feet within the study area. These features are summarized in the Stream Summary Table (Table 2). No other features exhibiting an OHWM were observed within the study area.

North Fork of Salt Creek

The North Fork of Salt Creek borders the study area in two locations. Along the eastern study area boundary, the creek flows from the south to the north and ultimately passes under S.R. 46. Along the western study area boundary, it flows from the north to the south after passing back under S.R. 46. At the September 29, 2017 field check, the North Fork of Salt Creek exhibited a 68-foot wide by 48-inch deep OHWM. Approximately 2,251 linear feet of this stream lies within the study area. The North Fork of Salt Creek is shown on USGS StreamStats and has an upstream drainage area of 70.3 square miles.

The North Fork of Salt Creek has a wooded riparian corridor along both banks. Its substrate consists of gravel, sand, and silt. Riffles, pools, and meanders were all observed. Based on these observations, the North Fork of Salt Creek was classified as having average quality. The stream's QHEI score of 55, however, suggests an above average aquatic habitat. This stream is not listed as a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

The North Fork of Salt Creek is shown as a perennial stream on USGS 7.5-minute series topographic mapping (page 12). Field observations confirmed this classification. This stream is a tributary to East Fork of the White River, which is a tributary to the Wabash River (a traditionally navigable waterway). Based on this connectivity and the presence of an OHWM, the North Fork of Salt Creek is likely a water of the U.S.

Unnamed Tributary 1 (UNT 1) to Salt Creek

UNT 1 to Salt Creek flows from east to west within the study area. At the September 29, 2017 field check, UNT 1 to Salt Creek exhibited a 7.5-foot wide by 12-inch deep OHWM. Approximately 281 linear feet of UNT 1 to Salt Creek lies within the study area. This stream is shown on USGS StreamStats and has an upstream drainage area of 0.2 square mile.

UNT 1 to Salt Creek has a wooded riparian corridor along both banks. Its substrate consists of gravel, sand, silt, and muck. Meanders and pools were observed, but no riffles. Based on these observations, UNT 1 to Salt Creek was classified as an average quality stream. However, its HHEI score of 69 suggested above average aquatic habitat quality. This stream is not listed as a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor is it located within two miles of any such resources.

UNT 1 to Salt Creek is show as an intermittent stream on USGS 7.5-minute series topographic mapping (page 12). Field observations confirmed this classification. UNT 1 to Salt Creek a tributary to the North Fork of Salt Creek, a likely water of the U.S. Based on this connectivity and the presence of an OHWM, UNT 1 to Salt Creek is likely a water of the U.S.

Table 2: Stream Summary Table

Name	Photo #	Latitude/ Longitude	OHWM Width (ft)	OHWM Depth (in)	Length (ft)	USGS Blue-Line (Y/N)	Riffles/Pools (Y/N)	Typical Substrate	QHEI/ HHEI Score	Quality*	Likely Water of the US (Y/N)
North Fork Salt Creek	4,58-59, 80-81, 92,130	39.198844/ -86.230366	68.0	48	2,251	Y	Y/Y	Gravel,Sand, Silt	55	Average	Y
UNT 1 to Salt Creek	106-108	39.196663/ -86.229836	7.5	12	281	Y	N/Y	Gravel,Sand, Silt,Muck	69	Average	Y
TOTAL					2,532						

**Quality was based on qualitative observations of each stream and its associated riparian corridor.*

Wetlands:

Sampling locations were determined using wetland vegetation, hydrology, and soil indicators. Eight wetlands totaling 1.693 acres (1,508 linear feet) were identified within the study area. These features are summarized in the Wetland Summary Table (Table 3). No other wetlands were observed within the study area. Two potential wetlands, however, were observed adjacent to the study area boundary, and a third wetland extended outside of the study area boundary (page 15).

Wetland 1

The area associated with Data Point 5 (DP-5, pages 58 to 60) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Acer negundo* (ash-leaf maple, FAC, 25%), and the sapling/shrub stratum was

dominated by *Fraxinus pennsylvanica* (green ash, FACW, 10%). The herbaceous stratum was dominated by *Leersia virginica* (white grass, FACW, 25%), *Packera aurea* (golden groundsel, FACW, 15%), and *Agrimonia parviflora* (harvestlice, FACW, 15%). The vine stratum was dominated by *Vitis riparia* (river-bank grape, FACW, 5%) and *Lonicera japonica* (Japanese honeysuckle, FACU, 3%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D-5]) were observed. Since all three wetland criteria were met at DP-5, this area was identified as Wetland 1.

Data Point 4 (DP-4, pages 55 to 57) was dominated by *Acer saccharinum* (silver maple, FACW, 10%), *Juniperus virginiana* (eastern red-cedar, FACU, 10%), and *Tsuga canadensis* (eastern hemlock, FACU, 5%) in the tree stratum. The sapling/shrub stratum was dominated by *Lonicera maackii* (bush honeysuckle, UPL, 15%) and *Fraxinus pennsylvanica* (green ash, FACW, 5%). The herbaceous stratum was dominated by *Lonicera japonica* (Japanese honeysuckle, FACU, 30%) and *Fraxinus pennsylvanica* (green ash, FACW, 15%). The vine stratum was dominated by *Lonicera japonica* (Japanese honeysuckle, FACU, 5%). This point did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since none of the three wetland criteria were met at DP-4, this point was determined to be upland. DP-4 helped establish the boundary of Wetland 1, which was determined based on changes in vegetation and topography.

Wetland 1 is a forested wetland approximately 0.027 acre (75 linear feet) in size (page 15). This wetland occupies a closed, shallow depression. Wetland 1 has a diverse native community. However, two invasive species were observed. Based on this, Wetland 1 was classified as an average-quality wetland. Wetland 1 is located within the 100-year floodway of the North Fork of Salt Creek. Because of this connectivity, this wetland is likely a water of the U.S.

Wetland 2

The area associated with Data Point 11 (DP-11, pages 76 to 78) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Acer saccharinum* (silver maple, FACW, 45%) and *Platanus occidentalis* (American sycamore, FACW, 30%). The sapling/shrub stratum was dominated by *Acer saccharinum* (silver maple, FACW, 20%). No herbaceous vegetative was observed. This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three secondary indicators of hydrology (Sparsely Vegetated Concave Surface [B8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-11, this area was identified as Wetland 2.

Data Point 10 (DP-10, pages 73 to 75) was dominated by *Platanus occidentalis* (American sycamore, FACW, 60%) and *Acer saccharinum* (silver maple, FACW, 25%) in the tree stratum. The herbaceous stratum was dominated by *Packera aurea* (golden groundsel, FACW, 10%) and *Boehmeria cylindrica* (small-spike false nettle, FACW, 10%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. No hydric soil indicators were observed. Only one secondary indicator of hydrology (FAC-Neutral Test [D-5]) was observed. Since two of the three wetland criteria were not met at DP-10, this point was determined to be upland. DP-10 helped establish the boundary of Wetland 2, which was determined based on changes in topography.

Data Point 14 (DP-14, pages 85 to 87) was dominated by *Acer saccharinum* (silver maple, FACW, 60%) in the tree stratum. The herbaceous stratum was dominated by *Lycopus americanus* (cut-leaf water-horehound, OBL, 35%) and *Phalaris arundinacea* (reed canary grass, FACW, 20%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Only one secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Because one of the three wetland criteria was not met, DP-14 was determined to be upland. DP-14 also helped establish the boundary of Wetland 2, which was determined based on changes in topography.

Wetland 2 is a forested wetland approximately 0.779 acre (488 linear feet) in size (page 15). This wetland extended beyond the study area boundary. It is located within a closed depression that is approximately 1-2 feet deeper than the surrounding landscape (page 16). Wetland 2 had a low species diversity with no herbaceous vegetative coverage. Because of this, it was classified as a poor-quality wetland. Wetland 2 is located within the 100-year floodway of the North Fork of Salt Creek. Because of this connectivity, this wetland is likely a water of the U.S.

Wetland 3

The area associated with Data Point 12 (DP-12, pages 79 to 81) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Acer negundo* (ash-leaf maple, FAC, 25%) and *Acer saccharinum* (silver maple, FACW, 15%). The herbaceous stratum was dominated by *Microstegium vimineum* (Japanese stilt grass, FAC, 75%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. Two secondary

indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D-5]) were observed. The soil profile met the hydric soil criterion because it exhibited the Problematic Hydric Soils indicator (Fluvial Deposits within Floodplains), which could be considered since the other two wetland criteria were met. Because all three wetland criteria were met at DP-12, this area was identified as Wetland 3.

Data Point 13 (DP-13, pages 82 to 84) was dominated by *Acer saccharinum* (silver maple, FACW, 65%) in the tree stratum. The herbaceous stratum was dominated by *Microstegium vimineum* (Japanese stilt grass, FAC, 30%) and *Amphicarpaea bracteata* (American hog-peanut, FAC, 25%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. No hydric soil indicators were observed. Only one secondary indicator of hydrology (FAC-Neutral Test [D-5]) was observed. Since two of the three wetland criteria were not met at DP-13, this point was determined to be upland. DP-13 helped establish the boundary of Wetland 3, which was determined based on changes in topography.

Wetland 3 is a forested wetland approximately 0.040 acre (168 linear feet) in size (page 15). This wetland is located within a long and narrow depression near the bank of the North Fork of Salt Creek (page 16). The herbaceous stratum of Wetland 3 is dominated by an invasive species. Because of this, it was classified as a poor-quality wetland. Wetland 3 is directly adjacent to the North Fork of Salt Creek and is located within its 100-year floodway. Because of this connectivity, this wetland is likely a water of the U.S.

Wetland 4

The area associated with Data Point 16 (DP-16, pages 91 to 93) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Acer saccharinum* (silver maple, FACW, 60%). The sapling/shrub stratum was dominated by *Acer saccharinum* (5%). The herbaceous stratum was dominated by *Lysimachia nummularia* (creeping-Jenny, FACW, 10%) and *Phalaris arundinacea* (reed canary grass, FACW, 10%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators of hydrology (Drift Deposits [B3] and Water-Stained Leaves [B9]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-16, this area was identified as Wetland 4.

Data Point 15 (DP-15, pages 88 to 90) was dominated by *Acer saccharinum* (silver maple, FACW, 60%) in the tree stratum and the sapling/shrub stratum (5%). The herbaceous stratum was dominated by *Glechoma hederacea* (groundivy, FACU, 25%), *Microstegium vimineum* (Japanese stilt grass, FAC, 20%), and *Leersia virginica* (white grass, FACW, 15%). This point met the hydrophytic vegetation criterion because it passed both the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Only one secondary indicator of hydrology (FAC-Neutral Test [D-5]) was observed. Since one of the three wetland criteria was not met at DP-15, this point was determined to be upland. DP-15 helped establish the boundary of Wetland 4, which was determined based on changes in topography.

Wetland 4 is a forested wetland approximately 0.090 acre (93 linear feet) in size (page 15). This wetland is located within a closed depression that is approximately 1-2 feet lower than the surrounding landscape (page 16). Wetland 4 has an average species diversity, but its herbaceous stratum was dominated by two invasive species. Because of this, Wetland 4 was classified as a poor-quality wetland. Wetland 4 is located within the 100-year floodway of the North Fork of Salt Creek. Because of this connectivity, it is likely a water of the U.S.

Wetland 5

The area associated with Data Point 17 (DP-17, pages 94 to 96) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Platanus occidentalis* (American sycamore, FACW, 50%) and *Acer saccharinum* (silver maple, FACW, 20%). The sapling/shrub stratum was dominated by *Ligustrum vulgare* (European privet, FACU, 5%). The herbaceous stratum was dominated by *Elymus virginicus* (Virginia wild rye, FACW, 30%) and *Boehmeria cylindrica* (small-spike false nettle, FACW, 20%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Drift Deposits [B3]) and three secondary indicators of hydrology (Surface Soil Cracks [B6], Geomorphic Position [D2], and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-17, this area was identified as the forested portion of Wetland 5.

Data Point 18 (DP-18, pages 97 to 99) was dominated by *Platanus occidentalis* (American sycamore, FACW, 40%) and *Catalpa speciose* (northern catalpa, FAC, 20%) in the tree stratum and *Platanus occidentalis* (10%) in the sapling/shrub stratum. The herbaceous stratum was dominated by *Microstegium vimineum* (Japanese stilt grass, FAC, 50%) and

Boehmeria cylindrica (small-spike false nettle, FACW, 20%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Only one secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Since one of the three wetland criteria was not met at this data point, it was determined to be upland. DP-18 helped establish the boundary of Wetland 5, which was determined based on changes in topography.

The area associated with Data Point 19 (DP-19, pages 100 to 102) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was dominated by *Platanus occidentalis* (American sycamore, FACW, 20%) and *Salix nigra* (black willow, OBL, 10%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 70%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Drift Deposits [B3]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-19, this area was identified as the scrub-shrub component of Wetland 5.

The area associated with Data Point 20 (DP-20, pages 103 to 105) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 90%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-20, this area was identified as the emergent component of Wetland 5.

Data Point 21 (DP-21, pages 106 to 108) was dominated by *Acer saccharinum* (silver maple, FACW, 10%) and *Robinia pseudoacacia* (black locust, FACU, 10%) in the tree stratum. The sapling/shrub stratum was dominated by *Rosa multiflora* (rambler rose, FACU, 15%). The herbaceous stratum was dominated by *Microstegium vimineum* (Japanese stilt grass, FAC, 70%). This point did not meet the hydrophytic vegetation criterion. No hydric soils or hydrology indicators were observed. Since none of the three wetland criteria were met at this data point, it was determined to be upland. DP-21 helped establish the boundary of Wetland 5, which was determined based on changes in vegetation and typography.

Wetland 5 is 0.416 acre (357 feet) in total size (page 15). It consists of three vegetative commu, ties: emergent (0.191), scrub-shrub (0.058), and forested (0.167 acre). This wetland is located within a depression that is approximately one-foot higher than the OHWM of the North Fork of Salt Creek. This depression is 3-5 feet lower than the surrounding floodplain (page 16). Invasive species dominated large portions of Wetland 5, which had below average native species diversity. Because of this, it was classified as a poor-quality wetland. Wetland 5 is directly adjacent to the North Fork of Salt Creek and is located within its 100-year floodway. Because of this connectivity, this wetland is likely a water of the U.S.

Wetland 6

The area associated with Data Point 23 (DP-23, pages 112 to 114) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Acer saccharinum* (silver maple, FACW, 30%) and *Platanus occidentalis* (American sycamore, FACW, 15%). The herbaceous stratum was dominated by *Packera aurea* (golden groundsel, FACW, 10%). The vine stratum was present but not with sufficient coverage to be considered for a dominant species. This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three secondary indicators of hydrology (Surface Soil Cracks [B6], Geomorphic Position [D2], and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-23, this area was identified as Wetland 6.

Data Point 22 (DP-22, pages 109 to 111) was taken adjacent to Wetland 6. The tree stratum was dominated by *Acer saccharinum* (silver maple, FACW, 40%), which also dominated the sapling/shrub stratum (10%). The herbaceous stratum was dominated by *Packera aurea* (golden groundsel, FACW, 45%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. No hydric soils indicators were observed. Only one secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Since two of the three wetland criteria were not met at DP-22, this point was determined to be upland. DP-22 helped establish the boundary of Wetland 6, which was determined based on changes in topography.

Wetland 6 is a forested wetland approximately 0.035 acre (67 linear feet) in size (page 15). This wetland is located within a closed depression that is approximately one-foot lower than the surrounding landscape (page 16). Wetland 6 had a low species diversity, but no invasive species were observed. Because of this, it was classified as an average-quality wetland. Wetland 6 is located within the 100-year floodway of the North Fork of Salt Creek. Because of this connectivity, this wetland is likely a water of the U.S.

Wetland 7

The area associated with Data Point 24 (DP-24, pages 115 to 117) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Salix nigra* (black willow, OBL, 35%). The sapling/shrub stratum was dominated by *Viburnum recognitum* (smooth arrow-wood, FAC, 10%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 25%), *Impatiens capensis* (spotted touch-me-not, FACW, 10%), and *Microstegium vimineum* (Japanese stilt grass, FAC, 10%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Loamy Gleyed Matrix (F2) and Depleted Matrix (F3) indicators. One primary indicator of hydrology (Oxidized Rhizospheres on Living Roots [C3]) and three secondary indicators of hydrology (Crayfish Burrows [C8], Geomorphic Position [D2], and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-24, this area was identified as Wetland 7.

Data Point 25 (DP-25, pages 118 to 120) was dominated by *Acer rubrum* (red maple, FAC, 60%) and *Platanus occidentalis* (American sycamore, FACW, 20%) in the tree stratum. The sapling/shrub stratum was dominated by *Elaeagnus umbellata* (autumn olive, UPL, 20%) and *Sassafras albidum* (sassafras, FACU, 10%). The herbaceous stratum was dominated by *Microstegium vimineum* (Japanese stilt grass, FAC, 25%) and *Packera aurea* (golden groundsel, FACW, 10%). The woody vine stratum was dominated by *Lonicera japonica* (Japanese honeysuckle, FACU, 5%). This point met the hydrophytic vegetation criterion because it passed the dominance test. No hydric soils or hydrology indicators were observed. Since two of the three wetland criteria were not met at DP-25, this point was determined to be upland. DP-25 helped establish the boundary of Wetland 7, which was determined based on changes in vegetation and topography.

The area associated with Data Point 26 (DP-26, pages 121 to 123) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Salix nigra* (black willow, OBL, 35%) and *Betula nigra* (river birch, FACW, 20%). The herbaceous stratum was dominated by *Lysimachia nummularia* (creeping-Jenny, FACW, 40%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three secondary indicators of hydrology (Drainage Patterns [B10], Geomorphic Position [D2], and FAC-Neutral Test [D5]) were observed. Since all three wetland criteria were met at DP-26, this area was identified as Wetland 7.

Data Point 27 (DP-27, pages 124 to 126) was dominated by *Platanus occidentalis* (American sycamore, FACW, 40%) and *Betula nigra* (river birch, FACW, 30%) in the tree stratum. The sapling/shrub stratum was dominated by *Betula nigra* (7%), *Lonicera maackii* (bush honeysuckle, UPL, 5%), and *Rosa multiflora* (rambler rose, FACU, 5%). The herbaceous stratum was dominated by *Microstegium vimineum* (Japanese stilt grass, FAC, 15%), *Lonicera japonica* (Japanese honeysuckle, FACU, 10%), *Packera aurea* (golden groundsel, FACW, 10%), and *Carex sp.* (unidentified *Carex*, 10%). The woody vine stratum was dominated by *Lonicera japonica* (5%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Since two of the three wetland criteria were not met at DP-27, this point was determined to be upland. DP-27 helped establish the boundary of Wetland 7, which was determined based on changes in vegetation and typography.

Wetland 7 is a forested wetland approximately 0.291 acre (214 linear feet) in size (page 15). This wetland is located within a depression that is one foot higher than the bankfull level of UNT 1 to Salt Creek but 1-2 feet lower than the surrounding landscape (page 16). Wetland 7 exhibited below average species diversity and multiple invasive species, some of which were dominant species. Because of this, it was classified as a poor-quality wetland. Wetland 7 is directly adjacent to UNT 1 to Salt Creek and is located within the 100-year floodway of the North Fork of Salt Creek. Because of this connectivity, this wetland is likely a water of the U.S.

Wetland 8

The area associated with Data Point 29 (DP-29, pages 130 to 132) was evaluated because it exhibited hydrophytic vegetation. The tree stratum was dominated by *Acer saccharinum* (silver maple, FACW, 30%) and *Platanus occidentalis* (American sycamore, FACW, 30%). The sapling/shrub stratum was dominated by *Viburnum recognitum* (smooth arrow-wood, FAC, 10%) and *Ligustrum vulgare* (European privet, FACU, 5%). The herbaceous stratum was dominated by *Lysimachia nummularia* (creeping-Jenny, FACW, 10%), *Onoclea sensibilis* (sensitive fern, FACW, 5%), and *Solidago gigantea* (late goldenrod, FACW, 5%). The vine stratum was present but not in sufficient coverage to be considered for a dominant species. This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Water-Stained Leaves [B9]) and two secondary indicators of hydrology (Surface Soil Cracks [B6] and Geomorphic Position [D2]) were observed. Since all three wetland criteria were met at DP-29, this area was identified as Wetland 8.

Data Point 28 (DP-28, pages 127 to 129) was dominated by *Platanus occidentalis* (American sycamore, FACW, 25%) and *Acer saccharinum* (silver maple, FACW, 20%) in the tree stratum. The sapling/shrub stratum was dominated by *Viburnum recognitum* (smooth arrow-wood, FAC, 10%), *Lonicera maackii* (bush honeysuckle, UPL, 5%), and *Ligustrum vulgare* (European privet, FACU, 5%). The herbaceous stratum was dominated by *Glechoma hederacea* (groundivy, FACU, 40%), *Solidago gigantea* (late goldenrod, FACW, 10%), *Agrimonia parviflora* (harvestlice, FACW, 10%), and *Lysimachia nummularia* (creeping-Jenny, FACW, 10%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Only one secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Because one of the three wetland criteria was not met at DP-28, this point was determined to be upland. DP-28 helped establish the boundary of Wetland 8, which was determined based on changes in topography.

Wetland 8 is a forested wetland approximately 0.015 acre (46 linear feet) in size (page 15). This wetland is located within a closed depression that is approximately one-foot lower than the surrounding landscape (page 16). Wetland 8 exhibited average native species diversity but contained multiple invasive species, some of which were dominant. Because of this, it was classified as a poor-quality wetland. Wetland 8 is directly adjacent to the North Fork of Salt Creek and is located within its 100-year floodway. Because of this connectivity, this wetland is likely a water of the U.S.

Table 3: Wetland Summary Table

Name	Photograph Number	Latitude/ Longitude	Wetland Type	Area (acre) (linear- foot length)	Quality	Likely Water of the U.S. (Y/N)	Isolated (Y/N) and Class I, II or III	Likely Exempt Isolated Wetland (Y/N)
Wetland 1	27-29	39.200095/ -86.22760	Forested	0.027 (75)	Avg.	Y	N	N
Wetland 2	52-55,65,70	39.199060/ -86.229486	Forested	0.779 (488)	Poor	Y	N	N
Wetland 3	60-62,67	39.198869/ -86.230164	Forested	0.040 (168)	Poor	Y	N	N
Wetland 4	76,79,82-85	39.197992/ -86.229708	Forested	0.090 (93)	Poor	Y	N	N
Wetland 5	88-91,93-97	39.197269/ -86.229945	Emergent/ Scrub-Shrub/ Forested	0.416 (357)	Poor	Y	N	N
Wetland 6	100,102-105	39.197097/ -86.229308	Forested	0.035 (67)	Avg.	Y	N	N
Wetland 7	109-111,114-119	39.196452/ -86.229672	Forested	0.291 (214)	Poor	Y	N	N
Wetland 8	122,125-126	39.196538/ -86.229962	Forested	0.015 (46)	Poor	Y	N	N
Total				1.693 (1,508)				

Non-Jurisdictional Features

Multiple data points were taken within the study area to fully characterize the 100-year forested floodplain of the North Fork of Salt Creek. Each additional data point is summarized below.

Data Point 1

Data Point 1 (DP-1, pages 46 to 48) was dominated by *Platanus occidentalis* (American sycamore, FACW, 10%), *Quercus rubra* (northern red oak, FACU, 10%), and *Fraxinus pennsylvanica* (green ash, FACW, 5%) in the tree stratum. The sapling/shrub stratum was dominated by *Elaeagnus umbellata* (autumn olive, UPL, 15%). The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FACU, 25%), *Schedonorus arundinaceus* (tall false rye grass, FACU, 20%), and *Phalaris arundinacea* (reed canary grass, FACW, 15%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. The hydrology

criterion was met since Oxidized Rhizospheres on Living Roots (C3) were observed. Because one of the three wetland criteria was not met at DP-1, this point was determined to be upland.

Data Point 2

Data Point 2 (DP-2, pages 49 to 51) was dominated by *Platanus occidentalis* (American sycamore, FACW, 25%) in the tree stratum. The sapling/shrub stratum was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 20%), *Elaeagnus umbellata* (autumn olive, UPL, 15%), and *Viburnum dentatum* (southern arrow-wood, FAC, 10%). The herbaceous stratum was dominated by *Lonicera japonica* (Japanese honeysuckle, FACU, 25%), *Onoclea sensibilis* (sensitive fern, FACW, 10%), *Fraxinus pennsylvanica* (green ash, FACW, 10%), and *Carex sp.* (unidentified *Carex*, 10%). The woody vine stratum was dominated by *Lonicera japonica* (15%). This point met the hydrophytic vegetation criterion because it passed the dominance test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Only one secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Based on topography, surface water appears to drain to the west (page 16). Therefore, this location lacked geomorphic position. Because one of the three wetland criteria was not met, DP-2 was determined to be upland.

Data Point 3

Data Point 3 (DP-3, pages 52 to 54) was dominated by *Platanus occidentalis* (American sycamore, FACW, 5%) and *Quercus rubra* (northern red oak, FACU, 5%) in the tree stratum. The sapling/shrub stratum was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 25%) and *Rosa multiflora* (rambler rose, FACU, 25%). The herbaceous stratum was dominated by *Agrimonia parviflora* (harvestlice, FACW, 35%), *Phalaris arundinacea* (reed canary grass, FACW, 15%), and *Schedonorus arundinaceus* (tall false rye grass, FACU, 15%). The woody vine stratum was dominated by *Lonicera japonica* (Japanese honeysuckle, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. No indicators of hydrology were observed. Since two of the three wetland criteria were not met, DP-3 was determined to be upland.

Data Point 6

Data Point 6 (DP-6, pages 61 to 63) was dominated by *Acer negundo* (ash-leaf maple, FAC, 20%) in the tree stratum. The sapling/shrub stratum was dominated by *Ligustrum vulgare* (European privet, FACU, 20%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 90%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. No hydric soil or hydrology indicators were observed. Since two of the three wetland criteria were not met, DP-6 was determined to be upland.

Data Point 7

Data Point 7 (DP-7, pages 64 to 66) was dominated by *Acer negundo* (ash-leaf maple, FAC, 30%) and *Juglans nigra* (black walnut, FACU, 10%) in the tree stratum. The sapling/shrub stratum was dominated by *Ligustrum vulgare* (European privet, FACU, 25%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 60%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. No indicators of hydrology were observed. Based on topography, surface water appears to drain to the west (page 16). Therefore, this location lacked geomorphic position. Since two of the three wetland criteria were met, DP-7 was determined to be upland.

Data Point 8

Data Point 8 (DP-8, pages 67 to 69) was dominated by *Acer negundo* (ash-leaf maple, FAC, 20%) and *Juglans nigra* (black walnut, FACU, 10%) in the tree stratum. The sapling/shrub stratum was dominated by *Ligustrum vulgare* (European privet, FACU, 10%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 55%) and *Glechoma hederacea* (groundivy, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since none of the three wetland criteria were met, DP-8 was determined to be upland.

Data Point 9

Data Point 9 (DP-9, pages 70 to 72) was dominated by *Acer saccharinum* (silver maple, FACW, 50%) and *Acer negundo* (ash-leaf maple, FAC, 20%) in the tree stratum. The herbaceous stratum was dominated by *Lysimachia nummularia* (creeping-Jenny, FACW, 20%) and *Packera aurea* (golden groundsel, FACW, 15%). Both the sapling/shrub stratum and woody vine stratum were present but not with sufficient coverage to be considered for dominant species. This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. No hydric soil indicators were observed. Only one secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Based on topography, water appears to drain to the west (page 16). Since two of the three wetland criteria were not met, DP-9 was determined to be upland.

Data Point 30

Data Point 30 (DP-30, pages 133 to 135) was dominated by *Acer saccharinum* (silver maple, FACW, 20%), *Betula nigra* (river birch, FACW, 10%), and *Juglans nigra* (black walnut, FACU, 10%) in the tree stratum. The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 70%). The woody vine stratum was dominated by *Lonicera japonica* (Japanese honeysuckle, FACU, 10%). This point met the hydrophytic vegetation criterion because it passed the dominance test and prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Only one secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Based on topography, water appears to drain to the north. Therefore, this location lacked geomorphic position. Since one of the three wetland criteria was not met, DP-30 was determined to be upland.

IV: Conclusions

Based on the field review, this project has features that are likely waters of the U.S. within the study area. Two likely jurisdictional streams totaling 2,532 linear feet were identified within the study area. Eight wetlands, totaling 1.693 acres (1,508 linear feet) were identified within the study area and are all likely waters of the U.S. No other water resources were identified.

Every effort should be taken to avoid impacts to the resources outlined in this report. If impacts will occur, waterway permits will be required and mitigation may be required. Impacts must be minimized before mitigation can be considered. INDOT's Ecology and Waterway Permitting Office (EWPO) staff should be contacted immediately if impacts will occur.

The conclusions presented in this report are the best judgment of Parsons and based on the guidelines set forth by USACE. The final determination of jurisdictional waters, however, is ultimately made by this agency.

A preliminary jurisdictional determination (pre-JD) form is attached to the end of this report (pages 136 to 139).

V. References

Cowardin, L.M, V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* U.S. Department of the Interior, Fish and Wildlife Service, Washington DC.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 Wetland Ratings.* Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

Ohio EPA. 2012. *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams.* State of Ohio Environmental Protection Agency, Division of Surface Water.

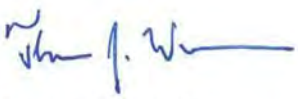
Ohio EPA. 2006. *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI).* State of Ohio Environmental Protection Agency, Division of Surface Water.

United States Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0).* U.S. Army Engineer Research and Development Center, Washington DC.

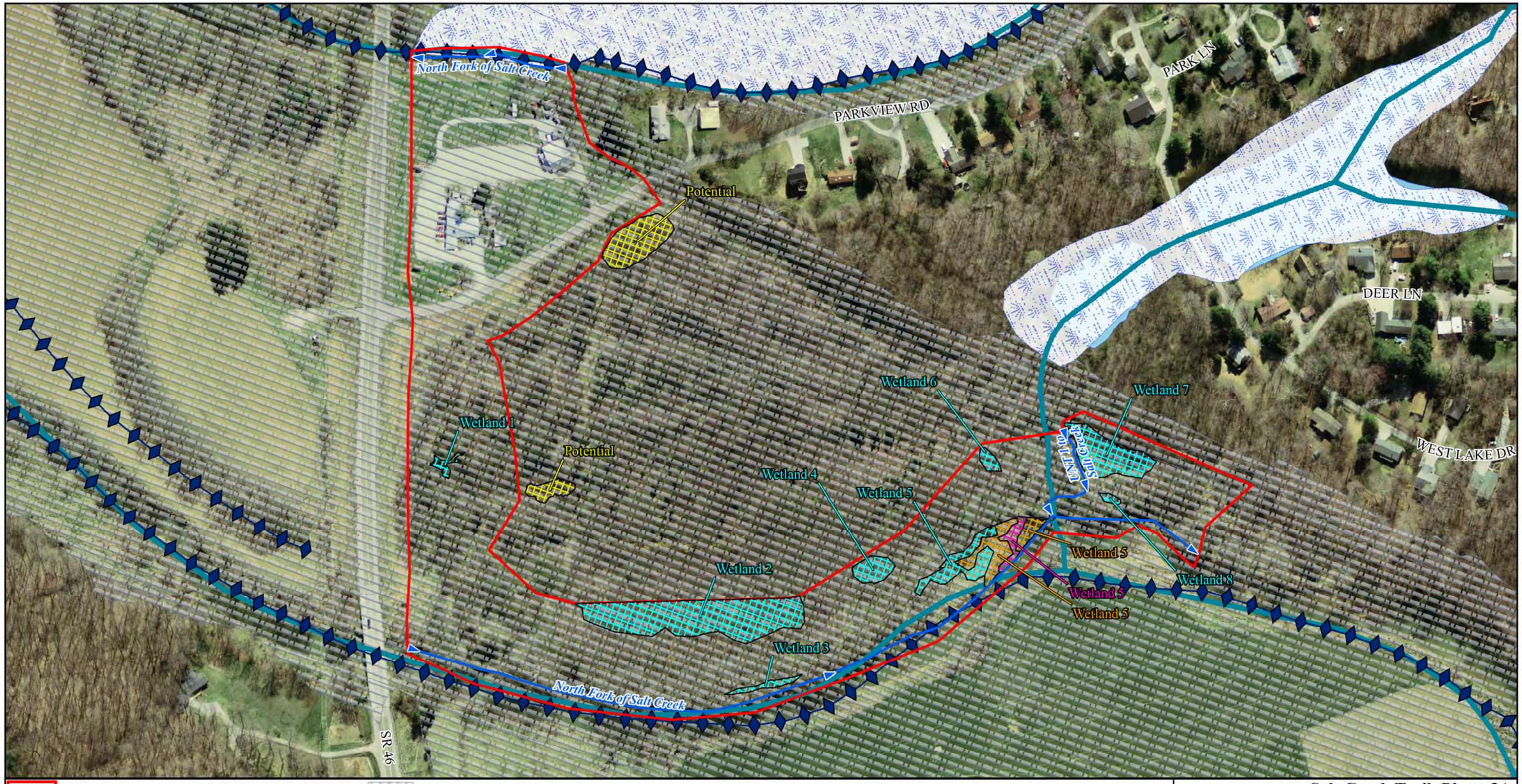
United States Department of Interior, U.S. Geological Survey. 2016. *StreamStats Version 3.0: Indiana.* https://streamstatsags.cr.usgs.gov/v3_beta/viewer.htm?stabbr=IN

VI. Acknowledgements

This report 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.



Thomas J. Warrner
Senior Environmental Planner
Parsons



Study Area
Emergent Wetland
Forested Wetland
Scrub-Shrub Wetland
Potential Wetland
Delineated Streams
NWI- Line
River_Stream
Wetlands
Lake
Floodplain - DFIRM

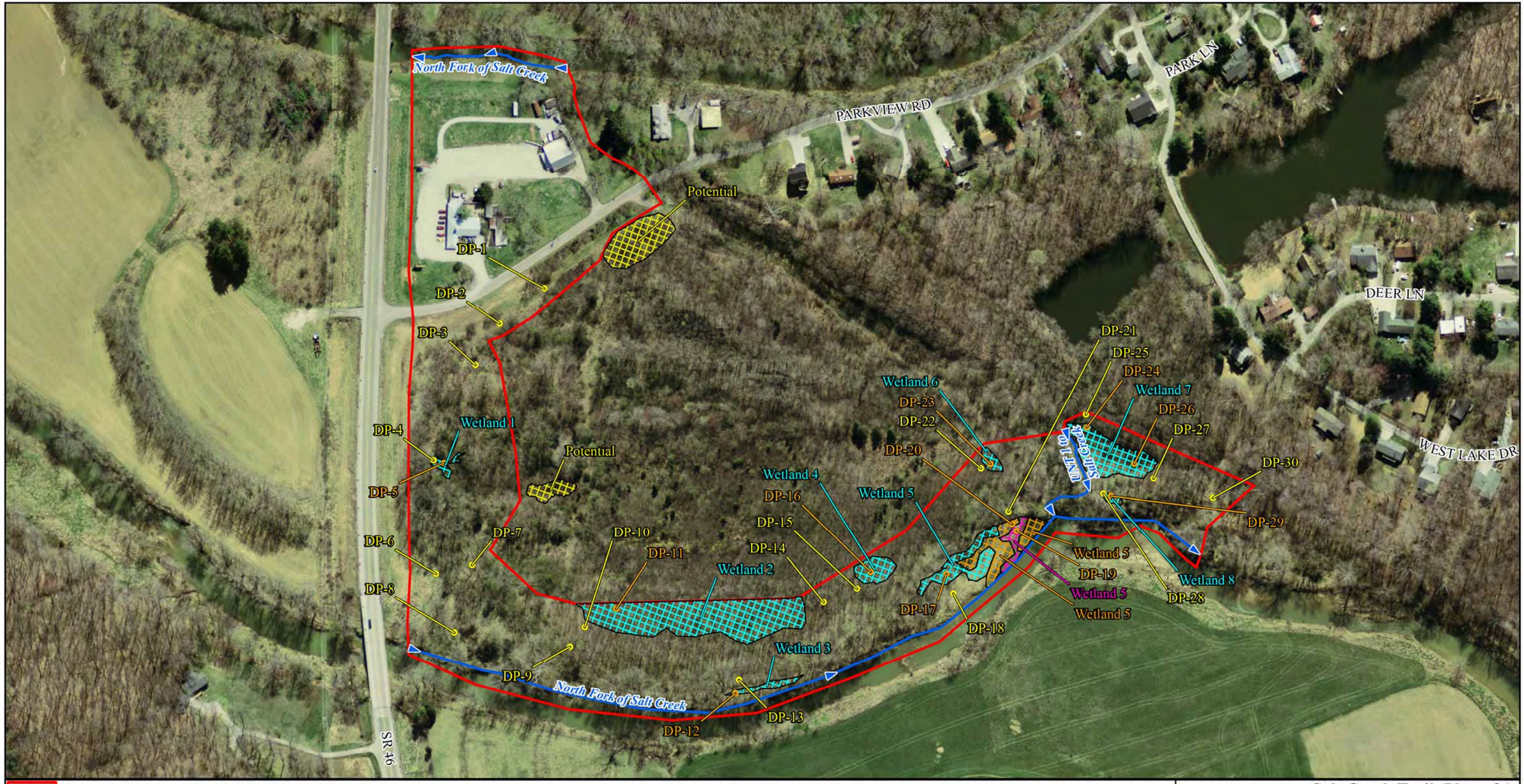
0 200 400 Feet
1 Inch = 200 Feet

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

Salt Creek Trail, Phase 3A
GIS-Based Water Resources

Des. 1382874
Date: 4/26/2018

PARSONS



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

Salt Creek Trail, Phase 3A
Field-Identified Resources

Des. 1382874
Date: 5/7/2018

PARSONS

Excerpts

PARSONS

Waters of the U.S. Report

Salt Creek Trail, Phase 3B

Brown County, Indiana
Designation Number 1382874

October 4, 2019

delivering a better world

Parsons • 101 West Ohio Street, Suite 2121 • Indianapolis, Indiana 46204 • (317) 616-1000

PARSONS

envision more

WATERS OF THE U.S. REPORT

Salt Creek Trail, Phase 3B

Brown County, Indiana
INDOT Designation (Des.) Number 1382874
Prepared By: Tom Plattner, Senior Environmental Planner
October 4, 2019

I: Project Information

Fieldwork Dates:
Fieldwork for this report was conducted on August 8, 2019.

Contributors:
Greg Moushon, Senior Environmental Planner
Wade Kimmon, GIS Specialist
Keaton Veldkamp, Associate Environmental Planner

Project Location:
Nashville Quadrangle
Sections 19 and 30 of Township 9 North, Range 3 East
Brown County, Indiana
Latitude/Longitude: 39.195169 North 86.235411 West

Project Description:
Brown County, Indiana proposes a multi-purpose trail located in Nashville, Indiana (page 9). This project is Phase 3B of the Salt Creek Trail. This segment of trail will connect Phase 3A of the Salt Creek Trail with the Brown County YMCA to Eagle Park Trail. The western end of the trail starts approximately 0.54 mile southeast of the intersection of State Road 46 and State Road 135. Land adjacent to the trail consists of forested floodplain, row crop fields, and the Brown County YMCA. Work for this project includes constructing a paved pedestrian and bike trail with a bridge crossing over North Fork Salt Creek. The need for this project stems from the lack of safe pedestrian access between Nashville and Brown County State Park.

II: Office Evaluation

Methodology:
The study area was based on the design alternatives evaluated for the National Environmental Policy Act (NEPA) document. A desktop review of the study area was conducted to identify potential waterways (streams, wetlands, ponds, etc.). The study area is approximately 3,345 feet in length, 30 feet wide, except at the bridge crossing location, and 2.59 acres in size. The study area was expanded at the location of the proposed bridge crossing of North Fork Salt Creek, to allow for potential adjustments of the bridge crossing location and potential construction impacts to North Fork Salt Creek. This included a review of historic and recent aerial photography for any areas with a water signature or a sharp change in vegetation. Any such areas were flagged for follow-up field reconnaissance. National Wetlands Inventory (NWI) mapping, floodplain mapping, United States Geological Survey (USGS) topographic mapping, mapped soil units, historic drainage, LiDAR hillshade, and National Hydrography Dataset (NHD) mapping were also reviewed. Any noted items were flagged for follow-up field reconnaissance.

Aerial Photography:
During review of current and historical aerial photography, areas were identified within the study area as potential streams. These areas were investigated during the field reconnaissance.

USGS Mapping:
North Fork Salt Creek was mapped on the USGS 7.5-minute topographical quadrangle map as a perennial stream (solid blue-line) (page 10). North Fork Salt Creek flows east to west within the study area. No other mapped streams were observed within the study area.

NWI and Floodplain Mapping:
The section of North Fork Salt Creek within the study area was mapped on the NWI database as riverine habitat. No NWI polygons, lines or points were mapped within the study area. There is a 100-year floodplain mapped throughout the study area (pages 12-15).

Mapped Soil Units:
According to the Soil Survey Geographic (SSURGO) Database for Brown County, Indiana, the study area is comprised of the Haymond silt loam (Hc), Berks-Trevlac-Wellston complex (BgF), and Chetwynd loam (CdD2) soil map units. All of the mapped soil units are rated as not hydric (0%). The Haymond silt loam is the most common soil map unit in the study area and is rated by the Natural Resource Conservation Service (NRCS) as frequently flooded for brief durations from January to May, well drained, and characterized by a water table that is greater than 6 feet deep. The mapped soil units within the study area are shown below in Table 1. A soil map is attached for reference (pages 16-19).

Table 1: Mapped Soil Units within the Study Area

Map Abbreviation	Soil Name	Classification
Hc	Haymond silt loam, frequently flooded	Not Hydric (0%)
BgF	Berks-Trevlac-Wellston complex, 20 to 70 percent slopes	Not Hydric (0%)
CdD2	Chetwynd loam, 12 to 20 percent slopes, eroded	Not Hydric (0%)

Historic Drainage:
The 1990 Soil Survey of Brown County and Part of Bartholomew County Indiana (USDA, 1990) was reviewed for historic drainage features within the study area (pages 20-21). North Fork Salt Creek was mapped as a perennial drainage within the study area. One unnamed drainage was mapped near the east end of the study area.

LiDAR Hillshade and NHD Mapping:
The NHD was mapped on a LiDAR hillshade background (pages 22-25). On the NHD and the LiDAR hillshade, a total of six potential stream features were identified within the study area.

Watershed:
The study area is located within a single hydrologic unit code 12-digit (HUC 12) watershed: North Fork Salt Creek (051202080604).

III: Field Reconnaissance

Methodology:
Parsons conducted a field investigation on August 8, 2019 to determine the presence of waterways, including streams, wetlands, lakes, and ponds, within the study area. The entire study area was reviewed for resources via a walking survey. All areas flagged during desktop review were investigated and documented. A resource map showing all identified features is attached for reference (pages 26-29).

The ordinary high-water mark (OHWM) of each stream was determined using a measuring tape. A hand-held GPS unit (Trimble Geo 7 Series) was used to collect the location of each identified stream. The upstream drainage area for each stream was calculated using StreamStats Version 4.3.0 (USGS, 2019), if available. Qualitative assessments of stream quality were done within the study area, while quantitative assessments often extended outside the study area. Quantitative assessments were conducted based on each stream's drainage using the guidelines for either the headwater habitat evaluation index (HHEI) (Ohio EPA, 2012) or qualitative habitat evaluation index (QHEI) (Ohio EPA, 2006) (pages 59-67).

Vegetation, soil, and hydrology data were assessed using the methods described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)* (USACE, 2012). Wetland indicator statuses for plants were obtained from the National Wetland Plant List (Lichvar, 2016). A hand-held GPS unit (Trimble Geo 7 Series) was used to collect the boundary of each identified wetland, as well as all data points (as applicable). The area for each wetland and its length (measured along its centerline) are provided. A qualitative assessment of each wetland's quality was conducted, which included grading them (poor, average, or excellent) based on ecological function, size, species diversity, invasive species prevalence, and amount of disturbance.

Photographs were taken throughout the study area. This included photographs of each feature identified within the study area (pages 34-43). A photograph orientation map is included for additional reference (pages 30-33).

Streams:

Field investigation resulted in the identification of four likely jurisdictional streams totaling approximately 273 linear feet (0.307 acre) within the study area. The features are summarized in the Stream Summary Table (Table 2, page 5). No other features exhibiting an OHWM were observed within the study area.

North Fork Salt Creek

According to Streamstats (USGS, 2019), the upstream drainage area associated with North Fork Salt Creek is approximately 70.6 square miles. Its watershed is predominantly forested with smaller amounts of agricultural fields and residential developments. North Fork Salt Creek is mapped on the USGS 7.5-minute topographical quadrangle maps as a perennial stream. North Fork Salt Creek flows east to west.

Approximately 179 linear feet (0.30 acre) of this perennial stream is within the study area. The OHWM was recorded as 68 feet wide and 52 inches deep. The channel substrate was gravel, sand, and silt. North Fork Salt Creek exhibits a moderate amount of in-stream cover, a wide riparian corridor, and moderate channel sinuosity. Banks and the riparian corridor were dominated by American sycamore (*Platanus occidentalis*), black walnut (*Juglans nigra*), reed canary grass (*Phalaris arundinacea*), deer-tongue rosette grass (*Dichanthelium clandestinum*), Japanese stilt grass (*Microstegium vimineum*), wingstem (*Verbesina alternifolia*), common milkweed (*Asclepias syrica*), and giant ragweed (*Ambrosia trifida*).

North Fork Salt Creek is not classified as a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor was it located within two miles of any such resources. Due to in-stream cover, a wide riparian corridor, presence of riffles/pools, and riparian areas dominated by native and non-native species, this stream is classified as good quality. This is supported by a QHEI score of 67.5 (page 59-60).

North Fork Salt Creek is a tributary to Salt Creek. Salt Creek is a tributary to the East Fork of the White River. The East Fork of the White River is a tributary of the White River, a traditionally navigable waterway. Based on the presence of an OHWM and the connectivity to a navigable waterway, North Fork Salt Creek is likely a water of the U.S.

UNT 1 to North Fork Salt Creek

StreamStats did not show the upstream drainage, for Unnamed Tributary (UNT) 1 to North Fork Salt Creek, so its upstream drainage is presumed to be less than one square mile. UNT 1 to North Fork Salt Creek is not mapped on the USGS 7.5-minute topographical quadrangle maps. UNT 1 to North Fork Salt Creek flows north to south.

Approximately 30 linear feet (0.002 acre) of this ephemeral stream is within the study area. The OHWM was obscured by vegetation. The OHWM was recorded as 2.3 feet wide and 5 inches deep. The channel substrate was silt. UNT 1 to North Fork Salt Creek exhibits a narrow riparian corridor, and no channel sinuosity. The banks and riparian corridor were dominated by Japanese bristle grass (*Setaria faberi*), rough cocklebur (*Xanthium strumarium*), large barnyard grass (*Echinochloa crus-galli*), field crown grass (*Paspalum laeve*), and green bristlegrass (*Setaria viridis*).

UNT 1 to North Fork Salt Creek is a tributary to North Fork Salt Creek, a likely water of the U.S. Based on the presence of an OHWM and the connectivity to a navigable waterway, UNT 1 to North Fork Salt Creek is likely a water of the U.S. UNT 1 to North Fork Salt Creek is not classified as a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor was it located within two miles of any such resources. Due to erosion, lack of sinuosity, lack of riffles/pools, and riparian areas dominated by non-native species, this stream is classified as poor quality. This is supported by an HHEI score of 22 (page 61-62).

UNT 2 to North Fork Salt Creek

StreamStats did not show the upstream drainage, for UNT 2 to North Fork Salt Creek, so its upstream drainage is presumed to be less than one square mile. UNT 2 to North Fork Salt Creek is not mapped on the USGS 7.5-minute topographical quadrangle maps. UNT 2 to North Fork Salt Creek flows southeast to northwest.

Approximately 30 linear feet (0.003 acre) of this ephemeral stream is within the study area. The OHWM was recorded as 4 feet wide and 6 inches deep. The channel substrate was cobble, gravel, sand, silt, and artificial. UNT 2 to North Fork Salt Creek exhibits a wide riparian corridor and moderate channel sinuosity. Bank and riparian corridor species included reed canary grass (*Phalaris arundinacea*), Japanese stilt grass (*Microstegium vimineum*), small-spike false nettle (*Boehmeria cylindrica*), Virginia creeper (*Parthenocissus quinquefolia*), rambler rose (*Rosa multiflora*), Christmas fern (*Polystichum acrostichoides*), and northern red oak (*Quercus rubra*).

UNT 2 to North Fork Salt Creek is not classified as a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor was it located within two miles of any such resources. Due to erosion, lack of sinuosity, lack of riffles/pools, and riparian areas dominated by non-native and native species, this stream is classified as poor quality. This is supported by an HHEI score of 32 (page 63-64).

UNT 2 to North Fork Salt Creek is a tributary to North Fork Salt Creek, a likely water of the U.S. Based on the presence of an OHWM and the connectivity to a navigable waterway, UNT 2 to North Fork Salt Creek is likely a water of the U.S.

UNT 3 to North Fork Salt Creek

StreamStats did not show the upstream drainage, for UNT 3 to North Fork Salt Creek, so its upstream drainage is presumed to be less than one square mile. UNT 3 to North Fork Salt Creek is not mapped on the USGS 7.5-minute topographical quadrangle maps. UNT 3 to North Fork Salt Creek flows north to south.

Approximately 34 linear feet (0.002 acre) of this ephemeral stream is within the study area. The OHWM was recorded as 3 feet wide and 3 inches deep. The channel substrate was gravel, sand, silt, and artificial. UNT 3 to North Fork Salt Creek exhibits a wide riparian corridor, and moderate channel sinuosity. Banks and riparian corridor species included reed canary grass (*Phalaris arundinacea*), Japanese stilt grass (*Microstegium vimineum*), small-spike false nettle (*Boehmeria cylindrica*), Virginia creeper (*Parthenocissus quinquefolia*), rambler rose (*Rosa multiflora*), Christmas fern (*Polystichum acrostichoides*), and northern red oak (*Quercus rubra*).

UNT 3 to North Fork Salt Creek is not classified as a Federal *Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*, nor was it located within two miles of any such resources. Due to erosion, lack of sinuosity, lack of riffles/pools, and riparian areas dominated by non-native and native species, this stream is classified as poor quality. This is supported by an HHEI score of 32 (page 65-66).

UNT 3 to North Fork Salt Creek is a tributary to North Fork Salt Creek, likely a water of the U.S. Based on the presence of an OHWM and the connectivity to a navigable waterway, UNT 3 to North Fork Salt Creek is likely a water of the U.S.

Table 2: Stream Summary Table

Name	Photo #	Latitude/ Longitude	OHWM Width (ft)	OHWM Depth (in)	Length (ft)	USGS Blue-Line (Y/N)	Riffles/ Pools (Y/N)	Typical Substrate	Quality*	QHEI/ HHEI Score	Likely Water of the US (Y/N)
North Fork Salt Creek	17, 21-24, 32	39.19517, -86.2354	68	52	179	Y	Y/Y	Gravel, Sand, and Silt	Good	67.5	Y
UNT 1 to North Fork Salt Creek	2-4, 6-8	39.19747, -86.2395	2.3	5	30	N	N/N	Silt	Poor	22	Y
UNT 2 to North Fork Salt Creek	33-34	39.19497, -86.2317	4	6	30	N	N/N	Cobble, Gravel, Sand, Silt, and Artificial	Poor	32	Y
UNT 3 to North Fork Salt Creek	35-36	39.19508, -86.2315	3	3	34	N	N/N	Cobble, Gravel, Sand, Silt, and Artificial	Poor	32	Y
TOTAL					273						

*Quality was based on qualitative observations within and immediately adjacent to the study area.

Wetlands:

Sampling locations were determined by the presence or absence of hydrophytic vegetation, hydric soil indicators, and hydrology indicators. One wetland totaling 0.018 acre was identified within the study area. Wetland 1 was the only wetland delineated within the study area, and is located in the northwestern part of the study area. The Data Point Summary Table (Table 3, page 6) and Wetland Summary Table (Table 4, page 7) summarizes the data collected on this. Brown County will seek concurrence on the jurisdiction of all wetlands from the U.S. Army Corps of Engineers (USACE) and the Indiana Department of Environmental Management (IDEM).

Wetland 1 (Herbaceous Emergent Vegetative Community)

The area associated with Data Point 1A IN was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Setaria faberi* (Japanese bristle grass, UPL, 30%), *Xanthium strumarium* (rough cocklebur, FAC 20%), and *Echinochloa crus-galli* (large barnyard grass, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the dominance test for hydrophytic vegetation. This location met the Depleted Matrix (F3) hydric soil indicator. No primary wetland hydrology indicators were observed. Two secondary hydrology indicators, Surface Soil Cracks (B6) and Crayfish Burrows (C8), were observed. Since all three of the wetland criteria were met at DP-1A-IN, this area was identified as Wetland 1. This data point represented a non-farmed portion of Wetland 1.

The area associated with Data Point 1B IN (DP-1B-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Echinochloa crus-galli* (large barnyard grass, FAC, 30%), *Zea mays* (corn, UPL, 20%), and *Xanthium strumarium* (rough cocklebur, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the dominance test for hydrophytic vegetation. This location met the Depleted Matrix (F3) hydric soil indicator. No primary wetland hydrology indicators were observed. Two secondary hydrology indicators, Surface Soil Cracks (B6), and

Geomorphic Position (D2), were observed. Since all three of the wetland criteria were met at DP-1B-IN, this area was identified as Wetland 1. This data point represented a farmed portion of Wetland 1.

Data Point 1 OUT (DP-1-OUT) was taken north of DP-1A-IN. The herbaceous stratum was dominated by *Paspalum dilitatum* (golden crown grass, FAC, 50%) and *Echinochloa crus-galli* (large barnyard grass, FAC, 20%). This point met the hydrophytic vegetation criterion because it passed the dominance test for hydrophytic vegetation. This location did not meet the wetland hydrology or hydric soils indicators criteria. Since the two of the three wetland criteria were not met at DP-1-OUT, this point was determined to be upland. The data point helped establish the boundary of Wetland 1, which was determined based on changes in hydrology and soils.

This emergent wetland is adjacent to UNT 1 to North Fork Salt Creek. This wetland has 0.018 acre within the study area. Due to periodic disturbance and the presence of non-native species, this wetland is classified as poor quality. Wetland 1 is adjacent to UNT 1 to North Fork Salt Creek, a likely water of the U.S. Therefore, Wetland 1 is likely a water of the U.S.

Wetland 1 extends off-site to the east and west as a potential emergent wetland. The potential emergent component of Wetland 1 is adjacent to a wetland complex that continues to extend further west with potential emergent, potential scrub-shrub, and potential forested inclusions within the complex.

Additional Data Points:

The area associated with Upland 1 (UPL-1) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was dominated by *Sambucus nigra* (black elder, FAC, 5%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 60%). This point met the hydrophytic vegetation criterion because it passed the dominance test indicator for hydrophytic vegetation. This location did not meet the wetland hydrology or hydric soils indicators criteria. Since the two of the three wetland criteria were not met at UPL-1, this point was identified as upland.

The area associated with Upland 2 (UPL-2) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was dominated by *Rosa multiflora* (rambler's rose, FACU, 5%) and *Rubus allegheniensis* (Allegheny blackberry, FACU, 2%). The herbaceous stratum was dominated by *Phalaris arundinacea* (reed canary grass, FACW, 30%), *Dichanthelium clandestinum* (deer-tongue rosette grass, FAC, 10%), *Microstegium vimineum* (Japanese stilt grass, FAC, 10%), and *Verbesina alternifolia* (wingstem, FAC, 10%). This point met the hydrophytic vegetation criterion because it passed the dominance test indicator for hydrophytic vegetation. This location did not meet the wetland hydrology or hydric soils indicators criteria. Since two of the three wetland criteria were not met at UPL-2, this point was identified as upland.

Table 3: Data Point Summary Table

Data Point Name	Hydrophytic Vegetation (Y/N)	Hydric Soils (Y/N)	Wetland Hydrology (Y/N)	Wetland (Y/N)
DP-1A-IN	Y	Y	Y	Y
DP-1B-IN	Y	Y	Y	Y
DP-1-OUT	Y	N	N	N
UPL-1	N	N	N	N
UPL-2	Y	N	N	N

Table 4: Wetland Summary Table

Name	Photo-graph Number	Latitude/ Longitude	Wetland Type	Area (acre)	Length (linear feet)	Quality	Likely Water of the U.S. (Y/N)	Isolated (Y/N) and Class I, II or III	Likely Exempt Isolated Wetland (Y/N)
Wetland 1	3-4, 8-14	39.19719/ -86.2395	Emergent	0.018	122	Poor	Y	N	N
Total				0.018					

*Classification of Wetlands and Deepwater Habitats of the United States (*Cowardin et al. 1979*)

Non-Jurisdictional Features:

There were two non-jurisdictional erosional features noted within the study area (page 38, photo 17, and page 41, photo 30). Neither of the features exhibited an OHWM.

IV: Conclusions

Based on the field review, the study area has five features that are likely waters of the U.S. Four streams, North Fork Salt Creek, and UNTs 1, 2, and 3 to North Fork Salt Creek, were identified within the study area and are likely waters of the U.S. (273 feet, 0.29 acre). One wetland was identified as a likely water of the U.S. (0.018 acre, 122 linear feet). No other likely waters of the U.S. or waters of the State were identified within the study area.

All jurisdictional waters of the U.S. are under the regulatory authority of USACE under Section 404 of the Clean Water Act. Every effort should be taken to avoid and minimize impacts to the resources outlined in this report. If impacts will occur, waterway permits will be required, and mitigation may be required.

The final determination of jurisdictional waters is ultimately made by USACE. This report is our best judgment based on the guidelines set forth by USACE. A preliminary jurisdictional determination form is attached to the end of this report (pages 67-70).

V. References

Cowardin, L.M, V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* US Department of the Interior, Fish and Wildlife Service, Washington DC.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 Wetland Ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.

Ohio EPA. 2012. Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams. State of Ohio Environmental Protection Agency, Division of Surface Water.

Ohio EPA. 2006. Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI). State of Ohio Environmental Protection Agency, Division of Surface Water.

United States Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0).* US Army Engineer Research and Development Center, Washington DC.

United States Army Corps of Engineers, Waterway Experiment Station, Environmental Laboratory. 1987. *Wetlands Delineation Manual* (as amended). Wetlands Research Program Technical Report Y-87-1.

United States Department of Agriculture, Soil Conservation Service. 1990. Soil Survey of Brown County and Part of Bartholomew County, Indiana.

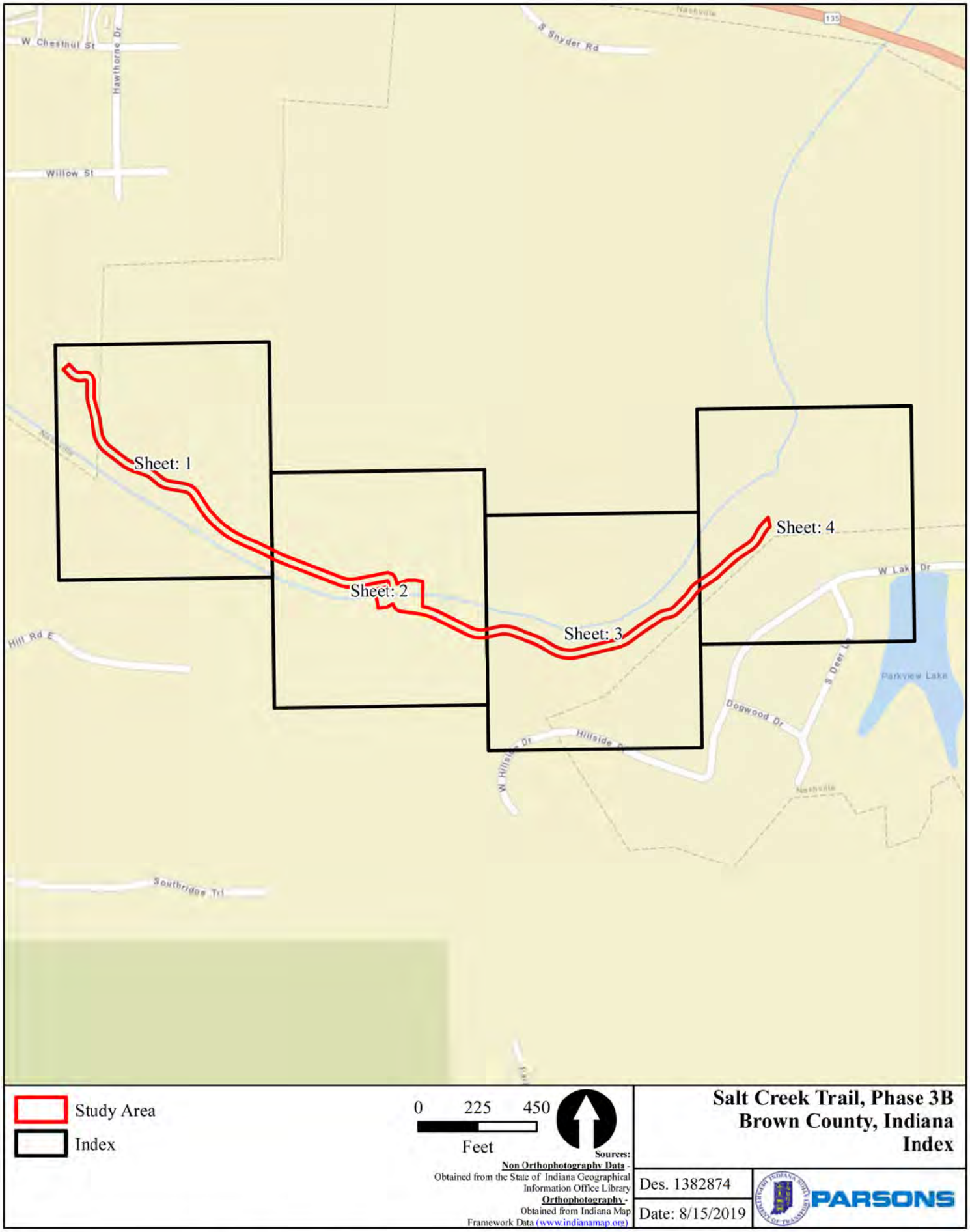
United States Geological Service. August 2019. *StreamStats*, Version 4.3.0.

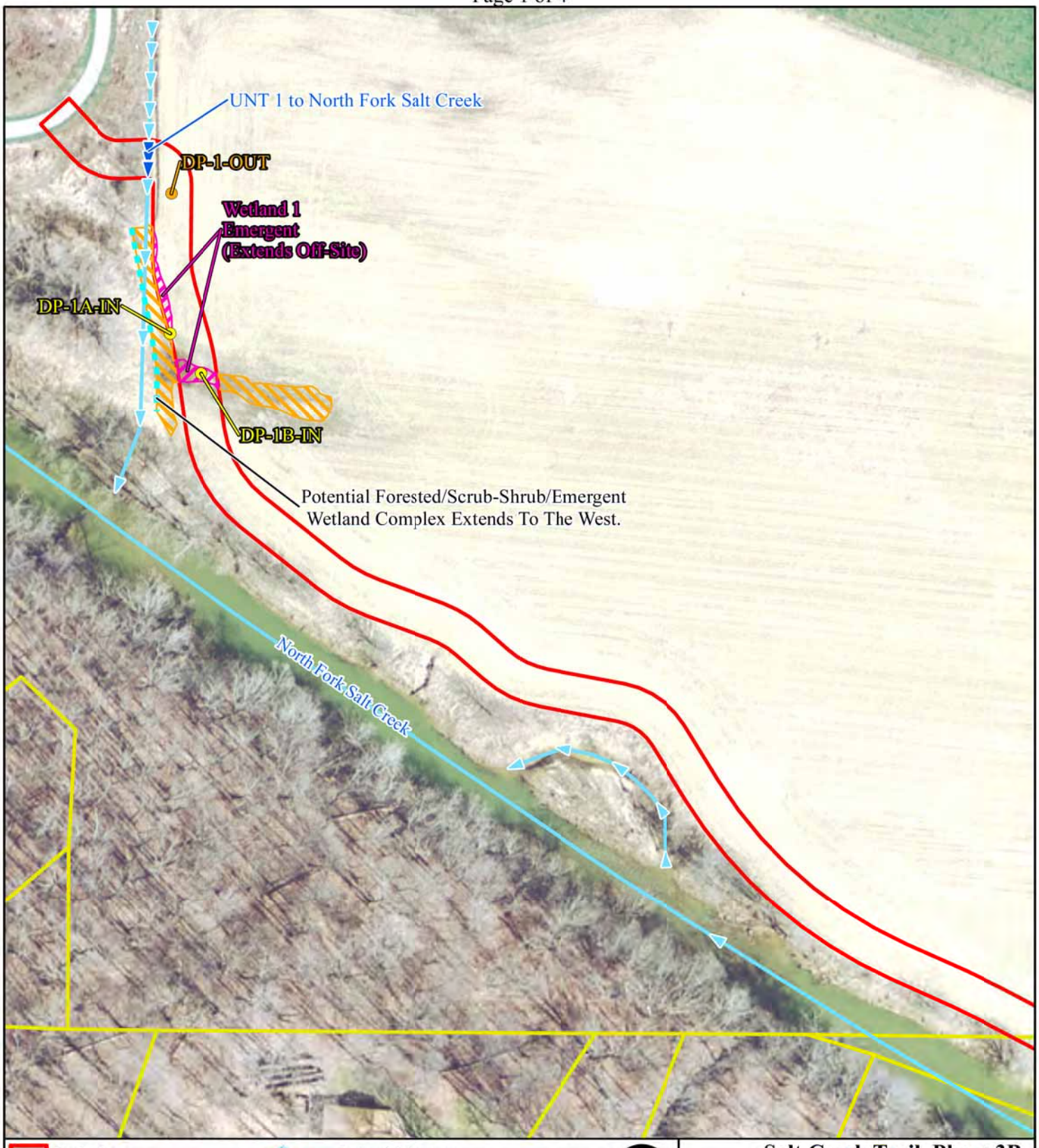
VI. Acknowledgements

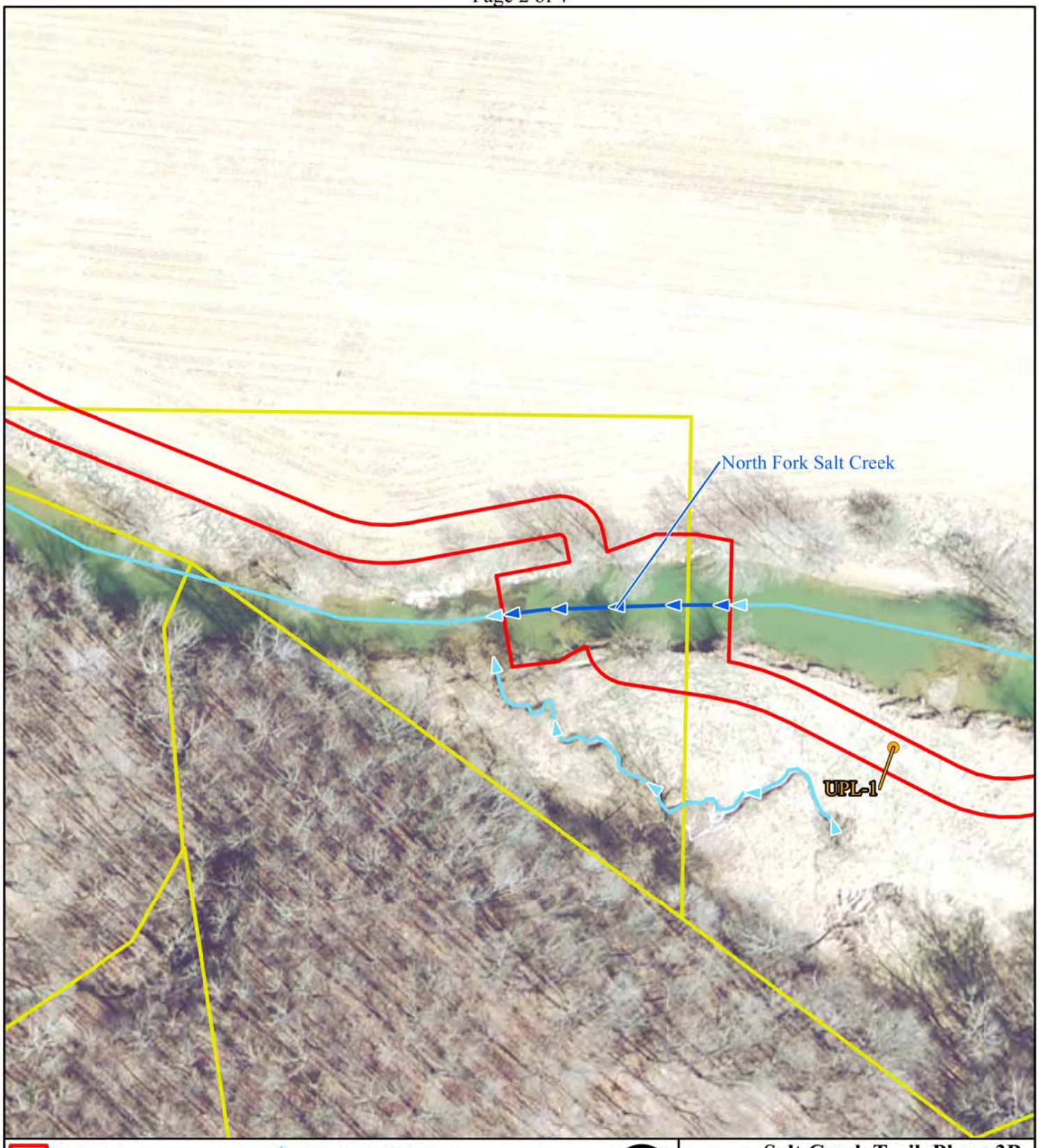
This report has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgement in conformance with the 1987 Corps of Engineers Wetlands Delineation Manual, the appropriate regional supplement, the USACE Jurisdictional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

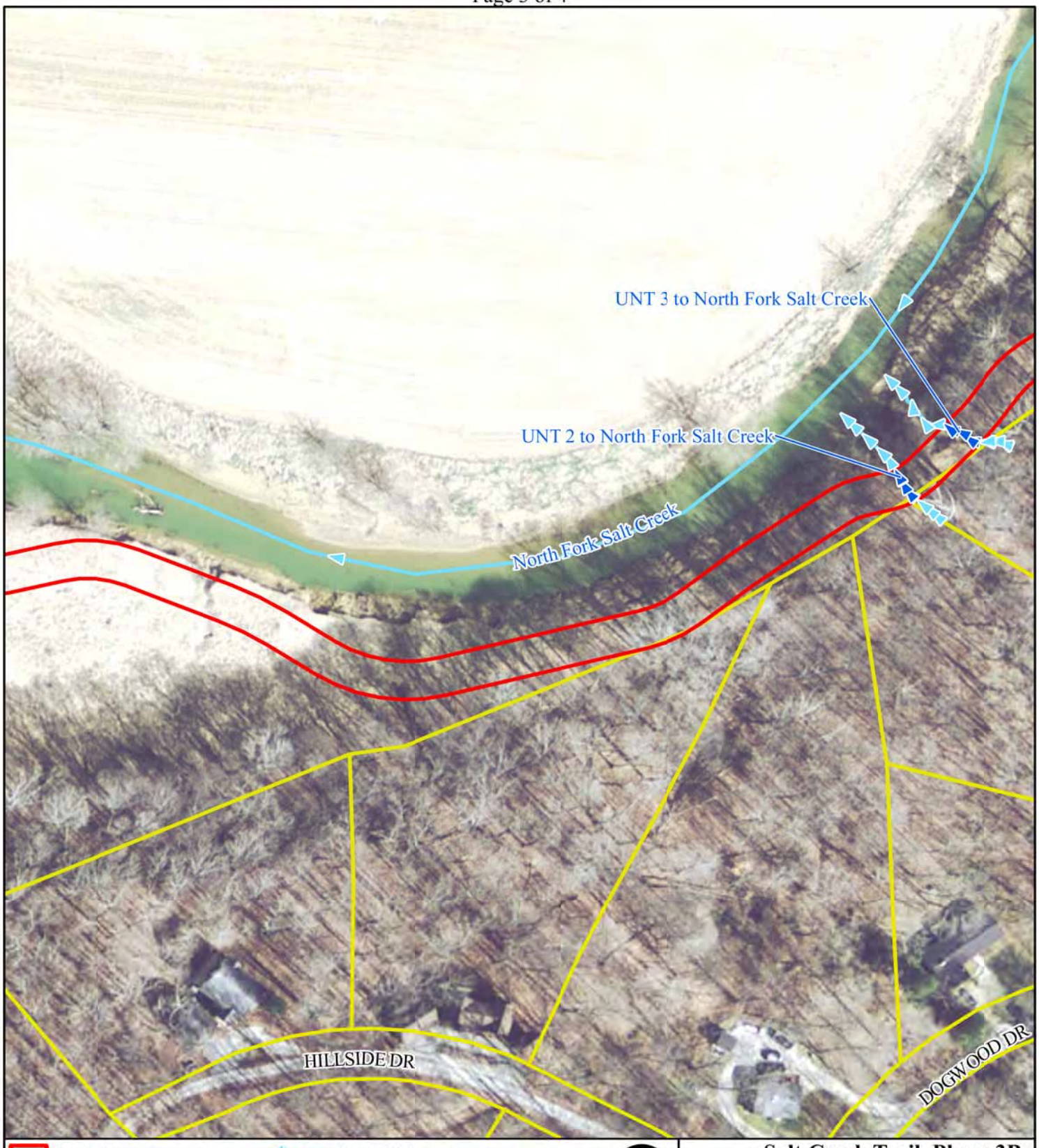
Tom Plattner

Tom Plattner
Senior Environmental Planner
Parsons


W Chestnut St
Hawthorne Dr
Willow St
S Snyder Rd
Nashville
135
Sheet: 1
Sheet: 2
Sheet: 3
Sheet: 4
W Lake Dr
Hill Rd E
Parkview Lake
Dogwood Dr
S Deer Ln
W Hillside Dr
Hillside Dr
Nashville
Southridge Trl
Study Area
Index
0 225 450
Feet
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Salt Creek Trail, Phase 3B
Brown County, Indiana
Index
Des. 1382874
Date: 8/15/2019
PARSONS


UNT 1 to North Fork Salt Creek
DP-1-OUT
Wetland 1
Emergent
(Extends Off-Site)
DP-1A-IN
DP-1B-IN
Potential Forested/Scrub-Shrub/Emergent
Wetland Complex Extends To The West.
North Fork Salt Creek
Study Area
Delineated Wetlands
Potential Emergent Wetlands
Data Points (IN)
Data Points (OUT)
Delineated Streams
Potential Streams
Parcels
Wetland Complex Extends Further West
0
50
100
Feet
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Salt Creek Trail, Phase 3B
Brown County, Indiana
Field-Identified Resources
Des. 1382874
Date: 10/3/2019
PARSONS


North Fork Salt Creek
UPL-1
Study Area
Delineated Wetlands
Potential Emergent Wetlands
Data Points (IN)
Data Points (OUT)
Delineated Streams
Potential Streams
Parcels
Wetland Complex Extends Further West
0
50
100
Feet
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Salt Creek Trail, Phase 3B
Brown County, Indiana
Field-Identified Resources
Des. 1382874
Date: 9/30/2019
PARSONS


UNT 3 to North Fork Salt Creek
UNT 2 to North Fork Salt Creek
North Fork Salt Creek
HILLSIDE DR
DOGWOOD DR
Study Area
Delineated Wetlands
Potential Emergent Wetlands
Data Points (IN)
Data Points (OUT)
Delineated Streams
Potential Streams
Parcels
Wetland Complex Extends Further West
0 50 100
Feet
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Salt Creek Trail, Phase 3B
Brown County, Indiana
Field-Identified Resources
Des. 1382874
Date: 9/30/2019
PARSONS


North Fork Salt Creek
UPL-2
WEST LAKE DR
DEER LN
Study Area
Delineated Wetlands
Potential Emergent Wetlands
Data Points (IN)
Data Points (OUT)
Delineated Streams
Potential Streams
Parcels
Wetland Complex Extends Further West
0
50
100
Feet
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Salt Creek Trail, Phase 3B
Brown County, Indiana
Field-Identified Resources
Des. 1382874
Date: 9/30/2019
PARSONS

INdiana Floodplain Information Portal

Indiana Department of Natural Resources

Find an address

Example: 300 Michigan Avenue, Auburn, IN, 46706

S Snyder Road, nashville, IN

Go To Address

- or -

Jump to a county

Select your county from below

Adams

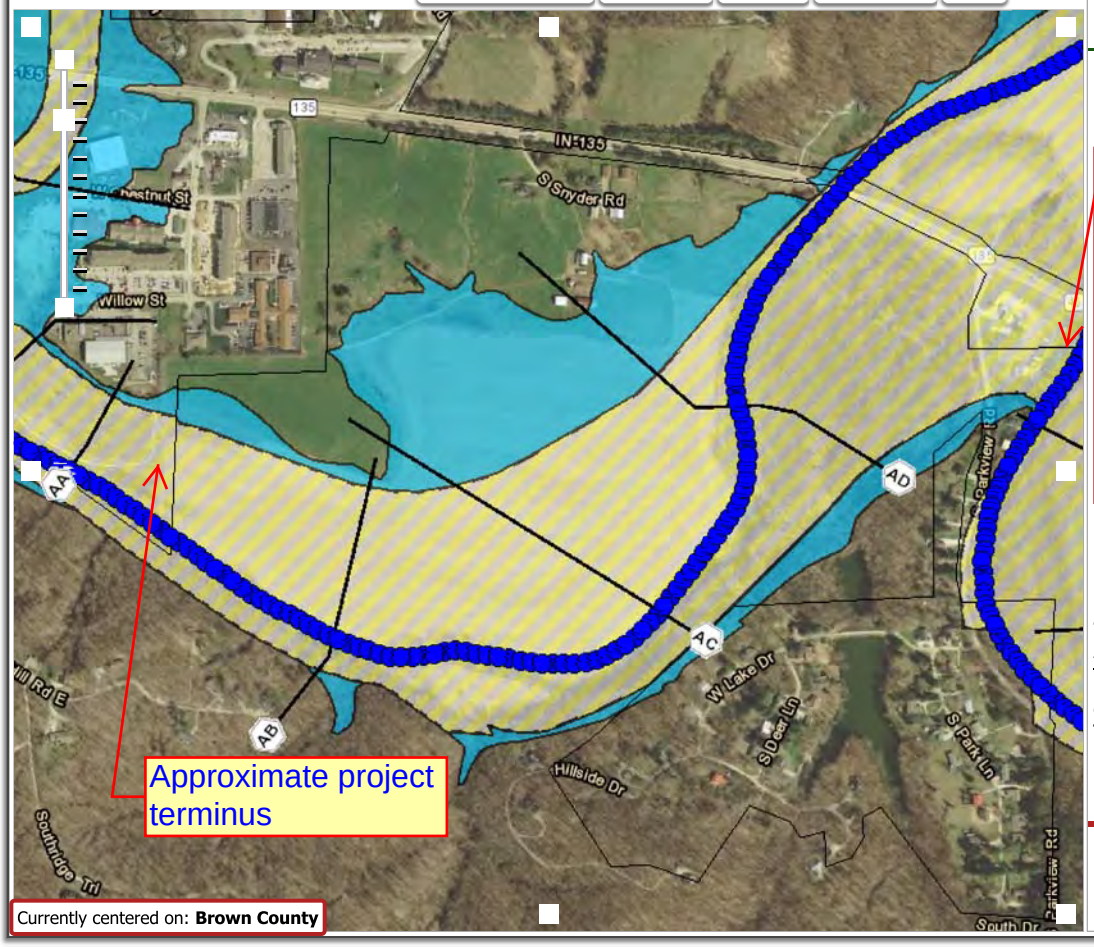
Want to use the eFARA Wizard to submit a floodplain i

Indiana, IDNR, Division of

Approximate project terminus

Map | FEMA Flood Insurance Study | Floodplain Layers | Frequently Asked Questions

Profile Charter | Layers | Legend | Options | Help



Click on the map
Inform
Click

Below is the availab
Interest. If you wou
Regulatory Assessm
Water, click on "eFA

Point of Int

Address:
S SNYDER ROAD,
Effective Flood Z
Effective Zone AE
Approximate Flo
601.4ft NAVD88
Source:
Zone AE Profile Co
Distance from cl
1,286 ft
Nearest Stream:
NORTH FORK SAL

Local Or

Local floodplain regu
of federal and state
BE MET. Please cor
further information.

Floodplain Admin
Christine Ritzmann
Title:
Director, Planning C
Phone Number: (8
E-Mail: ritzmannc@

Do

Flood Zo

DOW Home | About Us | FEMA Map Service Center | FloodSmart.gov | Contact Us

PARSONS

Appendix G

Public Involvement

	Page(s)
Notice of Survey Letters	G-1
Brown County Democrat articles	G-5
WTIU article	G-11
Correspondence with Red Barn Jamboree	G-13

Corporate Office
7172 N. Keystone Ave. Ste. G
Indianapolis, IN 46240
317.466.9520
www.eticagroup.com
Certified WBE | DBE

Notice of Survey

January 31, 2018

Jacqueline D. Watson
7808 E. Grandview Ridge Rd.
Columbus, IN 47201

SUBJECT: **Salt Creek Trail, Phase 3 (DES 1382874), Brown County, IN (etica job no. 170091.00)**

Dear Property Owner:

Our information indicates that you own or occupy property near the above referenced project. Our employees will be performing a survey of the project area in the near future. It may be necessary for them the come onto your property to complete this work. This is permitted by law per 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 it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

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

The survey work will include mapping the location of features such as trees, buildings, fences, and drives, and obtaining ground elevations of existing sidewalks and ramps. The survey is needed for the proper planning and design of this project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact myself below for questions concerning this project.

Sincerely,

Brian M. Stanoch, PS, PE
Survey Project Manager
bstanoch@eticagroup.com
(317)837-9900

Cc: File: 170091.00

A copy of this letter was also sent to these addresses:

Colton Magner
700 Parkview Road
Nashville, IN 47448

How Now Brown County LLC
51 Parkview Road
Nashville, IN 47448

PARSONS

101 West Ohio Street, Suite 2121 | Indianapolis, IN 46204
Direct: +1 317.616.1000 | **Fax:** +1 317.616.1033 | www.parsons.com

[NAME]
[STREET]
[CITY, ZIP]

RE: Des. No. 1382874
Salt Creek Trail Phase 3B
Brown County, Indiana

Notice of Entry for Survey or Investigations

May 9, 2019

Dear Property Owner,

Our information indicates that you own property near the above proposed transportation project. Representatives of the Indiana Department of Transportation will be conducting engineering and/or environmental surveys of the project area in the near future. It may be necessary for the INDOT Representatives to enter onto your property to complete this work. This is permitted by Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else (i.e. rental, sharecrop), please let us know the name of the new owner or occupant so that we can contact them about the survey.

Please read the attached notice to inform you of what the "Notice of Entry for Survey or Investigation" means. The design and environmental surveys are needed for the proper planning and design of this highway project. Engineering survey work would include mapping the location of features such as trees, buildings, fences, drives, ground elevations, etc. Environmental survey work may include the identification and mapping of wetlands, architectural surveys, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), and various other environmental studies. It is our sincere desire to cause you as little inconvenience as possible during this 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 that your property is involved, we will contact you with additional information.

If any problems occur, please contact the field crew or one of the following:

Roy Carlsgaard, PE
President IXOYE Engineering
P.O Box 48
Bargersville, IN 46106
(317) 840-0026
roy@ixoyeengineering.com

Daniel J. Miller
Principal Environmental Planner
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204
(317) 616-4663
daniel.j.miller@parsons.com

Harry S. Nikides
ASC Group, Inc.
9376 Castlegate Drive
Indianapolis, IN 46256
(317) 915-9300 x100

Please be aware that IC 8-23-7-27 and 28 provides that you may seek compensation from INDOT for damages occurring to your property (land or water) that result from INDOT's entry for the purposes mentioned above in IC 8-23-7-26. In this case, a basic procedure that may be followed is for you and/or an INDOT employee or representative to present an account of the damages to one of the above named INDOT staff. They will check the information and forward it to the appropriate person at INDOT who will contact you to discuss the situation and compensation.

In the event that property damage occurs as a result of work performed during survey, the Greenfield District Real Estate Manager can provide you with a form to request compensation for damages. You may contact:

Donald Ballard
Greenfield District Real Estate Manager
32 South Broadway
Greenfield, IN 46160
317-467-3941
doballard@indot.in.gov

After filling out the form, you can return it to the District Real Estate Manager for consideration. Please contact the District Real Estate Manager if you have questions regarding the matter, rights, and procedures.

If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-8 provides the following:

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

Thank you in advance for your cooperation in this matter.

Sincerely,

Daniel J. Miller
Parsons, Principal Environmental Planner
101 W. Ohio St., Suite 2121
Indianapolis, IN 46204
daniel.j.miller@parsons.com

Attachment

State Parcel No.	Owner Name	Owner Address	Location Address
07-07-30-200-100.000-004	Charles W. Snyder	26 SNYDER RD, NASHVILLE, IN 47448	SNYDER RD (REAR)NASHVILLE,47448
07-07-30-200-111.000-004	Charles W. Snyder	26 SNYDER RD, NASHVILLE, IN 47448	STATE ROAD 46NASHVILLE,47448
07-07-19-400-153.000-004	Charles W. Snyder	26 SNYDER RD, NASHVILLE, IN 47448	STATE ROAD 46NASHVILLE,47448
07-07-19-400-634.001-005	Brown County Maple Leaf Building Corp.	26 SNYDER RD, NASHVILLE,IN 47448	200 MAPLE LEAF BLVDNASHVILLE,47448
07-07-19-400-639.000-005	Brown County Community YMCA, Inc.	105 WILLOW STREET, NASHVILLE,IN 47448	105 WILLOW STNASHVILLE,47448

Salt Creek Trail negotiations continue

By Sara Clifford - 10/16/18 10:26 AM

By SUZANNAH COUCH and SARA CLIFFORD, scouch@bcdemocrat.com, sclifford@bcdemocrat.com

The Indiana Department of Transportation has offered Brown County Schools $13,700 for an easement that would allow the placement of two bridges on either end of Eagle Park as part of the Salt Creek Trail.

The school board did not vote right away; they took the matter under advisement after it was presented to them at the Oct. 4 meeting. They did not specify when they would vote.

The steel-truss highway bridges are to go over Salt Creek and help link Brown County State Park with downtown Nashville — eventually, when the 3-mile-long trail is finished. In addition to a spur to the Brown County Schools campus, it could extend to the county-owned Deer Run Park as well.

Eagle Park houses the schools' cross-country course, baseball and softball diamonds. The east bridge will connect the state park with Eagle Park, and the west bridge will connect Eagle Park with the Parkview Road area.

Story continues below gallery

1 of 2

The first leg of the Salt Creek Trail between the Nashville CVS and the Brown County YMCA opened in November 2013. C members have been working on extensions and are getting closer to breaking ground on one of them.

Part of the west bridge will go on land formerly owned by Gary and Sheila Oliver off Parkview Road. Eight months after being contacted by INDOT, in early February, the couple sold a quarter-acre of their yard for an undisclosed sum.

Brown County Highway Superintendent Mike Magner, the trail project manager, attended the school board meeting to help answer questions.

Later that evening, Magner also talked with a group after the League of Women Voters' candidate forum about how the land acquisition process has played out. That topic had come up during commissioner candidate speeches at the forum.

Background

Discussion about the placement of these bridges has gone on for more than a year. Last October, for three hours, a panel of key players in the trail project spoke before a large group and answered questions at the Brown County High School cafeteria.

The trail project started with route planning in October 2002. The first three-quarter-mile paved section, between the Brown County YMCA and Nashville

CVS, opened in the fall of 2013.

In 2014, it was announced that a two-section, 400-foot-long, vehicular bridge owned by the state was coming to Brown County for use on the trail. INDOT offered to pay to rehab the bridge sections for their new use and place them on the trail.

INDOT had offered the bridge to public entities when it could no longer be used as part of State Road 46 in Clay County. Three communities expressed interest. INDOT picked Brown County to get it after county commissioners Dave Anderson, Diana Biddle and Joe Wray wrote letters in 2015 pledging the county's support. That included a commitment to maintain one section for at least 25 years at an unspecified cost.

The other bridge section will go on state park property, so the Indiana Department of Natural Resources would be responsible for maintaining it, Magner said at the trail meeting last October.

The DNR is in charge of building the trail section on Eagle Park and state park property. INDOT is only handling the easements and placement of the bridge for that section.

Much of the funding to build the trail is coming from INDOT and the DNR.

Land for the middle section, between Parkview Road and the Brown County YMCA, has not been secured.

The Olivers said they didn't know until about two years ago that a bridge needed to be placed on their property. The initial route planning letter sent by the trail committee in 2003 was addressed to their property's previous owners, the year before they bought it, they said.

Last summer, the couple started attending commissioner and school board meetings to attempt to stop the bridge after they'd received a notice from

INDOT. INDOT offered them $7,800 for a quarter-acre; the Olivers initially said no.

Last week the couple said that that wasn't the final price; INDOT kicked in more to allow for fencing and landscaping, which the couple will have to do themselves if they want it to shield their yard from trail users.

The Olivers have said that they aren't against the trail; they just didn't want it in their yard, and they didn't want to part with their land for this bridge, but felt like they had no choice.

"As you can guess, we're trying to get over it, but it's just really difficult," Gary Oliver said last week.

"We had said before we would give you land to put a bridge there that fits, but not this big, ugly iron big-span bridge that's going to be taller than our house."

Gary Oliver said he talked briefly with members of the Brown County Beautification Committee and they think something can be done to make the bridge look better than it does now. "They thought it would work out, even though the bridge really didn't fit the Brown County look," he said.

"So, it's amazing what's happened to us, but we said we're too old to fight it, and we negotiated and it's over."

The Brown County school board gave some consent for the use of its land nearly 10 years ago, allowing wetlands that were disturbed during the building of the first trail phase to be moved to Eagle Park. But when the school board was considering an offer to put part of the bridge at Eagle Park, it was discovered that a land-use easement for the actual trail was never signed.

According to past route sketches, the trail is envisioned to follow Salt Creek at Eagle Park and parallel the schools' cross-country course in places.

The school board may end up dealing with the bridge agreement and the trail easement paperwork at the same meeting, Hammack said.

INDOT's $13,700 offer to the school board includes $2,500 for the land itself where the bridge will be placed, and $4,400 for the perpetual easement on 0.459 acres, since the bridge will be there forever. The offer also included $6,800 for a temporary right-of-way on 2.477 acres for job site access. The values were were determined by an appraiser.

Eminent domain?

The acquisition offer the school board received states that if the board does not accept the offer and cannot come to an agreement with INDOT, INDOT has the right to "file suit to condemn, and acquire the property and easement in the county in which the real estate is located."

Last summer, the Olivers received a similar letter from INDOT which mentioned eminent domain.

What that language meant was part of what Magner was discussing with members of the Birkemeier family, Brown County Republican Party Chairman Mark Bowman and others after the Oct. 4 candidate forum.

During commissioner candidate Kyle Birkemeier's speech that evening, he claimed that the Olivers' land had been taken by eminent domain and that the county had a "transparency problem" in the way this project was handled. He pledged to complete the trail without using "threats." Bowman had interjected in Biddle's defense; she was not at the forum.

Public hearings which INDOT conducted in January and August 2015 about moving the bridge here were done in Clay County, where the bridge has stood for decades. The project was talked about in public meetings of the county commissioners and Salt Creek Trail Committee in Brown County.

Several groups of commissioners have come in and out of office since trail planning started in 2002. At least twice, previous commissioners had promised to not use eminent domain in acquiring land for the trail.

Over the past 16 months, neither INDOT nor the commissioners have said that they're solely responsible for making a decision on eminent domain. Who would direct whether or not it is used remains unclear.

In October 2017, at the urging of the audience, county commissioners Anderson, Biddle and Jerry Pittman voted 2-1 against using eminent domain for the trail. Anderson did not support that motion because he was concerned about the county having to pay back the state for work thus far.

People who'd supported the Olivers thought that that vote meant they didn't have to part with their land, but the acquisition process had already been started months before, Sheila Oliver said. When the acquisition process is over, eventually, the trail will be turned over to the county, Magner said at the Oct. 4 school board meeting.

Sheila Oliver asked him if the school property was being acquired through condemnation or eminent domain. Magner said no to both because the district received a cash offer.

"We had a cash offer too," Oliver said, "but in our signing, it clearly states that it was condemnation and eminent domain claimed. I know many people have been confused about that, but that's exactly what our offer said that we signed."

Legally, eminent domain is the taking of private property for public use, with fair compensation.

Magner told the school board audience that there is a difference between the Olivers' property and the school property because the Olivers' property was actually purchased by INDOT, whereas the schools are only considering allowing INDOT an easement.

Hammack also said that the school property envisioned for the trail will be an easement, and that will be in writing.

"What we've been really intentional about making sure is that everything we want to have established in the easement is codified, because really when we go way back — which is why I think so many folks have been frustrated throughout this process — that initial easement was never signed, never recorded, but we have a recollection of it," she said.

Magner said as documents are signed, he will have them recorded at the county recorder's office and get copies back to the district.

School board president Steve Miller Jr. said he was "bothered" by the perpetual easement term.

"It's perpetual as long as there's a trail," Magner said. He said if some point in the future, the trail stops existing, the school district could file with the state after a certain number of years to reclaim the property as long as it's not being used for a trail.

Sheila Oliver, a former elementary school principal, said last week that she still has concerns about the wisdom and safety of putting a public trail on school-owned land, especially considering measures the school district has taken to boost security at its buildings.

How to keep children safe on the trail was asked of candidates for school board at their forum on Oct. 3. Suggestions included having a person patrol the trail and/or installing facial-recognition cameras.

When is the bridge coming?

The bridge in question is still being used on State Road 46 near Bowling Green. Work to build a new road section and bridge is under way.

Magner told the school board there's "kind of a need to move forward" as soon as possible.

He said the goal is to get construction for the bridge placement started this winter, in the off-season for outdoor sports that use Eagle Park, like cross-country. Winter is also when trees can be legally cleared because of bat habitat season in the spring, he said. It could be about a year before the bridges would be moved, he said.

Putting in the foundation could also "coincide with building the rest of trail in the same off-season," he said.

"Unfortunately, we just went through the process of making the course all muddy (with cross-country events), so since we already had some disturbance, it would be a good time to come in and build the base for the rest of it (the trail)," Magner said

"Then, we can clean it all up at one time and reseed it, so by the time cross-country comes along next year, you have a perfect bed of grass on the whole project."

Biddle said Oct. 9 that the volunteer Salt Creek Trail Committee still exists, but it had not been meeting since INDOT was in the process of securing multiple easements. At the trail information forum last October, she had pledged to reorganize the committee; Birkemeier had volunteered to be on it. Current members include Ellen Carter, Brian Howey and Mark Shields, Biddle said last week.

The committee is responsible for completing the trail section that goes between the Brown County YMCA and the bridge in question at Parkview Road.

"I think once the acquisition happens with the schools and we get confirmation from INDOT that the bridges are coming, then we will recircle the wagon," Biddle said last week.

Trail project on the move: Bridges not here, but some work done on park phase

By Suzannah Couch - 4/9/19 9:23 AM

Earth-movers have arrived at Brown County Schools' Eagle Park to prepare to build another segment of the Salt Creek Trail.

Since 2013, planned expansions of the trail to connect downtown Nashville with Brown County State Park have been on hold while the Indiana Department of Transportation worked to secure easements from property owners in the path.

The necessary agreements have now been made with owners in the section that will run from the state park to Parkview Road, in the area of the former RedBarn Jamboree and Hesitation Point bicycle shop.

In February, the school board approved the sale of real estate interests to INDOT so that a bridge can be placed for the trail. It will go on the northwest corner of the school district's Eagle Park property spanning over to the Parkview area, Superintendent Laura Hammack said.

The parties settled on a price of $161,000. The original offer INDOT made to the school board was $13,700.

A second bridge over Salt Creek will be installed on land owned by the Indiana Department of Natural Resources in the state park, Hammack said.

In 2014, it was announced that a two-section, 400-foot-long, vehicular bridge owned by the state was coming to Brown County for use on the trail. INDOT offered to pay to rehab the bridge sections for their new use and place them on the trail.

Last week, Brown County Highway Superintendent Mike Magner, the trail project manager, said he didn't know when the bridges will be delivered because they are still in use in Clay County; they're currently part of State Road 46 while INDOT builds a new road. Those crews are running behind because of conflicts with weather and utilities, he said.

On March 28, the school board also approved an access easement agreement between the school corporation and the county, which allows for the actual trail to be in Eagle Park.

This also allowed the county to begin removing trees in the area of the trail and where the bridges will be dropped. That work had to be completed by April 1 before the beginning of the bat habitat season.

Hammack said the school board was intentional about knowing which trees would be removed. "We were really intentional about making sure the plans were fundamentally mapped so that we understood where trees would be removed. It was extraordinarily important to the board to make sure those plans were detailed and defined," she said.

Erosion control was also used, Magner said at the March 20 Brown County Commissioners meeting.

A date on when trail surface construction will begin at Eagle Park has not been finalized, as final revisions to plans are being made, Magner said last week.

The school district is still supposed to be notified when the property is being worked on, but they are not a part of the trail development conversation, as Magner is the lead on all of the trail work, Hammack said.

For example, if the cross-country trail at Eagle Park is damaged during construction of the Salt Creek Trail, the school district will participate in "collaborative conversations" with the county on how best to mitigate the damage. The county would then pay for that mitigation, Hammack said.

What's next?

The 3-mile-long Salt Creek Trail project started with route planning in October 2002. The first three-quarter-mile paved section, between the Brown County YMCA and Nashville CVS, opened in the fall of 2013.

A Salt Creek Trail Committee of local people was formed before the project became a county project with the involvement of INDOT and the DNR, which offered the Clay County bridges. The county then had to sign off as the recipient.

"Then, honestly, it becomes no different than a paving state highway kind of thing. INDOT does it," commissioner Diana Biddle said. "While having a trail committee is good for fundraising and that sort of stuff, basically, all of the decisions that are required now are required as votes by the commissioners," she said. This means that a trail committee is not needed right now to oversee the phases yet to be finished, since funding has been secured through grants and donations, she said.

Easements have not been secured for the middle phase of the trail, which would connect Parkview Road with the YMCA. Last week, Magner said that survey work was in process for a preliminary design of that route. Biddle said that only possible routes have been identified for that phase, but nothing official.

One option would require working with landowners to secure land along Salt Creek for the trail. That would require building another pedestrian bridge over the creek, Biddle said. A bridge could be funded with future trail grants from the state, she said.

Another option could be using a sidewalk alongside Maple Leaf Boulevard that would then go out to State Road 46 East, use existing highway easements to the Sgt. Jeremy R McQueary Memorial Bridge, then take the trail down to creek level at that point.

From there, the trail would connect back up to the donated highway bridge that will be placed near Parkview Road to go into Eagle Park.

"I think we get need to get the bridges done. We need to finish the (Brown County) Music Center. Then, by the time we get all that done, towards the end of the year, we will be ready to look at, 'This is the last piece, and how we are going to connect?'" Biddle said about the middle phase.

Biddle said a committee of community members would be needed to look into the fourth phase of the Salt Creek Trail once the other phases are completed.

"Would we go to the school (campus in Nashville)? Would we try to go out to Deer Run? Where does the community want it to go? At that point, we would probably turn it back to a community committee to investigate different alternatives," she said.

A committee could also be formed to raise money for that phase of the trail, she said.

Suzannah Couch

Suzannah Couch grew up in Brown County, reading the Brown County Democrat. A 2013 Franklin College graduate, she covers business, county government, cops/courts, education and arts/entertainment.

Leaders See Light At The End Of Tunnel For Brown Co. Salt Creek Trail

By LINDSEY WRIGHT
Posted October 26, 2018

Mike Magner points to a 2008 layout of the Salt Creek Trail, which will run in its entirety from Nashville to Brown County State Park. (Lindsey Wright, WFIU/WTIU News)

Brown County leaders say they're closer to breaking ground on the next phase of the Salt Creek Trail.

The Indiana Department of Transportation reached settlements this month with three property owners. The state will pay them a total of more than $481,000 for access to their land.

Some of those negotiations started more than a year ago.

Phase 1 of the trail is already complete. The end goal is to see the trail run from Nashville all the way to Brown County State Park.

Brown County Highway Superintendent Mike Magner is a project manager for the trail.

Magner says the project, which started about 15 years ago, is complicated because there are multiple phases and funding sources. So, he says there's a lot of misinformation.

"Uninformed people were throwing out that all the county, the commissioners and myself are all bad people because we condemned and stole people's property; that didn't happen," Magner says. "So that's upsetting to us."

Magner says all funding is secured for the project, including through the Department of Natural Resources and federal highway funds. But he says there are additional sections to the trail being considered, including one that would connect to the high school.

The DNR's portion of the project, which extends to the state park, should be complete this spring. Magner says he expects the entire trail will be finished no later than 2021.

Read Next

Indianapolis Has A New Plan For Jobs, Economic Equity

Economists Warn Falling RV Sales Signal Impending Recession

U.S. Steel Announces Idling Of East Chicago Tin Mill, Laying Off Around 150 Workers

Want to contact your legislators about an issue that matters to you? Find out how to contact your senators and member of Congress here.

RECENT BUSINESS AND ECONOMY STORIES

- Vendor Rethinking Business Model After Market Controversy
- Bloomington Plan Commission To Revie Latest Draft Of UDO
- Portage Is Still Seething A Week After Cyanide, Ammonia Spill
- Amid Tariff War With China, Farmers Remain Committed To Trump, GOP
- Saturday Shoppers Will Again Have Choice Of Two Farmers' Markets

Subject: Fw: RedBarn Proposal for Salt Creek Trail-Phase III
From: "Bob Kirlin" <bob.kirlin@sbcglobal.net>
Date: 3/7/2017, 3:12 PM
To: "Roy Carlsgaard - IXOYE" <roy@ixoyeengineering.com>

For your information. Bob

From: Jacqueline Watson
Sent: Tuesday, March 7, 2017 2:48 PM
To: shieldsma@browncounty-in.us ; bob.kirlin@sbcglobal.net
Subject: RedBarn Proposal for Salt Creek Trail-Phase III

Hey Mark and Bob,

From my conversation with Mark today, I would like to share this proposal from the RedBarn for the Salt Creek Trail, transverse across the RedBarn property, please let me know that you have in fact received the documentation along with 3 drawing. I have much enthusiasm for seeing this Trail being completed, and I welcome your feed-back.

Ms. Watson

Attachments:

RedBarn-bc-sctrail.odt	26.6 KB
sct-dr-1.jpg	400 KB
sct-dr-2.jpg	336 KB
sct-dr-3.jpg	336 KB

PARSONS

Appendix H

Air Quality

	Page(s)
STIP 2020-2024 (Excerpt)	H-1

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Brown County																		
Indiana Department of Transportation	1800762	Init.	SR 46	Bridge Thin Deck Overlay	00.11 mile W of SR 135 over N Fork Salt Creek	Seymour	0	NHPP		Bridge Construction	CN	$315,555.20	$78,888.80		$394,444.00			
Brown County	1902078	A 07	IR 1001	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2021-2024	Seymour	0	STBG	$203,575.00	Local Bridge Program	PE	$143,801.60	$0.00			$67,101.60	$18,351.20	$58,348.80
										Local Funds	PE	$0.00	$35,950.40			$16,775.40	$4,587.80	$14,587.20
Comments:No MPO. Add $67,101.60 federal and $16,775.40 local funds to FY 2022. Add $18,351.20 federal and $4,587.80 local funds to FY 2023. Add $58,348.80 federal and $14,587.20 local funds to FY 2024.																		
Brown County	37105 / 1382874	Init.	VA VARI	Bike/Pedestrian Facilities	Salt Creek Trail - Phases 2 & 3	Seymour	0	STPBG		Local Transportation Alternatives	CN	$1,559,424.00	$0.00		$1,559,424.00			
										Local Funds	CN	$0.00	$389,856.00		$389,856.00			
Brown County	38170 / 1500200	Init.	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2017-2020	Seymour	0	STPBG		Local Bridge Program	PE	$67,309.92	$0.00	$50,737.70	$16,572.22			
										Local Funds	PE	$0.00	$16,827.48	$12,684.42	$4,143.06			
Indiana Department of Transportation	39866 / 1601821	Init.	SP PARK	Covered Bridge Rehabilitation	Covered Bridge at North Gate of Brown County State Park off of SR 46	Seymour	0	STPBG		DNR/INST Construction	CN	$93,802.52	$23,450.63	$117,253.15				
Indiana Department of Transportation	39878 / 1600668	Init.	SR 46	Small Structure Replacement	4.0 miles E of SR 135 E Junction	Seymour	0	NHPP		Bridge ROW	RW	$64,000.00	$16,000.00	$80,000.00				
										Bridge Construction	CN	$1,329,131.20	$332,282.80		$1,661,414.00			
Indiana Department of Transportation	40058 / 1602105	Init.	SR 46	Bridge Deck Overlay	1.24 mile E of W Jct of SR 135 over North Fork Salt Creek	Seymour	0	NHPP		Bridge Construction	CN	$1,200,117.60	$300,029.40	$1,500,147.00				
Indiana Department of Transportation	40313 / 1500022	Init.	SR 135	Replace Superstructure	4.64 miles S of SR 46 at Pleasant Valley Creek	Seymour	0	STPBG		Bridge Construction	CN	$1,458,021.60	$364,505.40		$1,822,527.00			
Indiana Department of Transportation	40939 / 1801065	Init.	SR 135	HMA Overlay, Preventive Maintenance	0.95 miles N of W Jct SR 46 (Ridgeway Dr) to 0.33 miles S of E Jct of SR 252	Seymour	11.596	STPBG		Road Construction	CN	$4,094,630.40	$1,023,657.60		$5,118,288.00			
										Bridge Construction	CN	$3,200.00	$800.00	$4,000.00				
Indiana Department of Transportation	41459 / 1800293	Init.	SR 135	Replace Superstructure	7.11 mi S of SR 46, at Br Salt Creek	Seymour	0	STPBG		Bridge ROW	RW	$64,000.00	$16,000.00		$80,000.00			
										Bridge Consulting	PE	$761,680.00	$190,420.00	$933,000.00			$19,100.00	
										Bridge Construction	CN	$2,139,904.00	$534,976.00				$2,674,880.00	
Indiana Department of Transportation	42298 / 1900331	A 13	SR 46	HMA Overlay Minor Structural	SR 446 to W Jct of SR 135	Seymour	15.24	NHPP	$15,135,279.00	Road ROW	RW	$60,000.00	$15,000.00			$75,000.00		

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

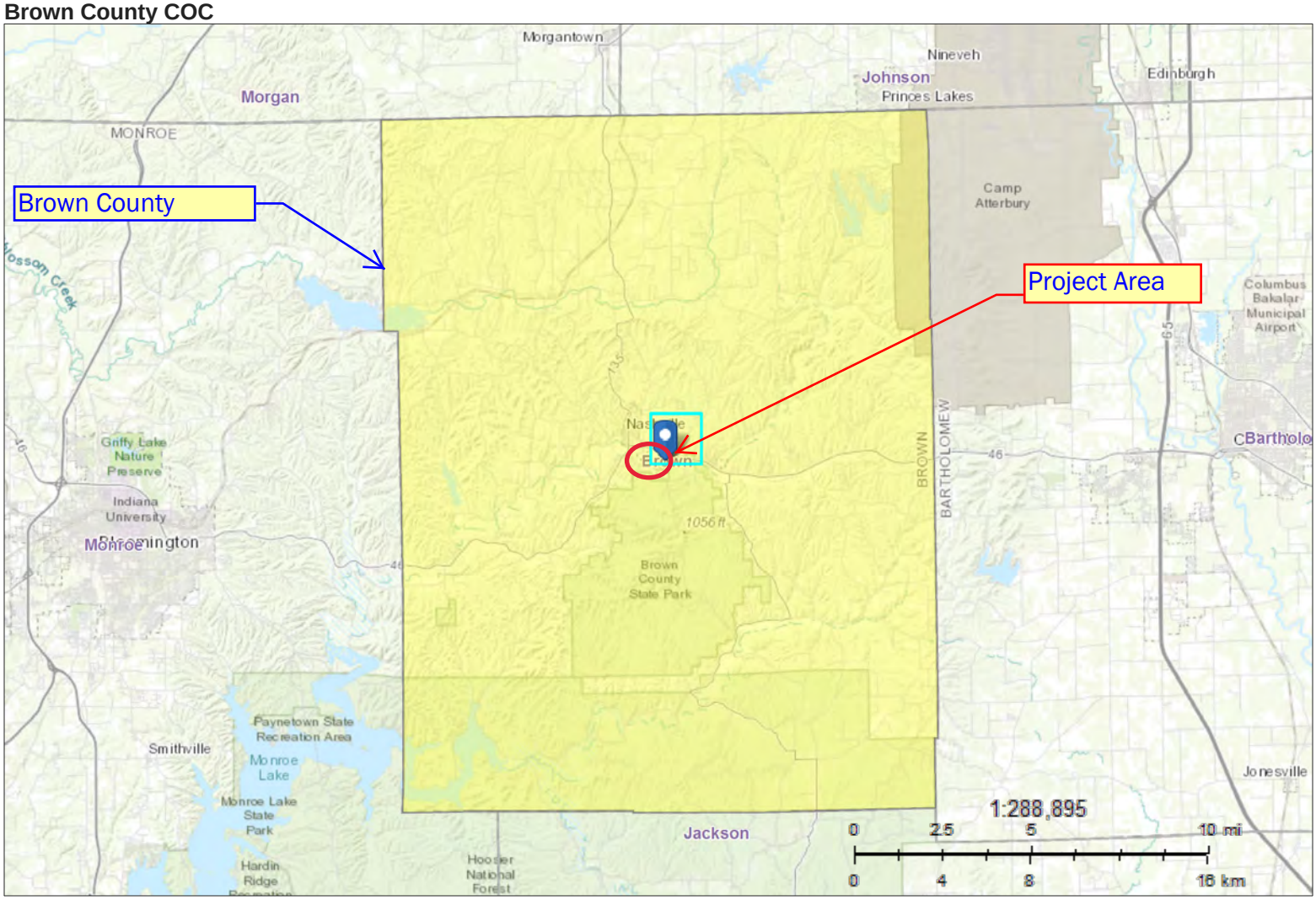
Appendix I

Additional Studies

Pages

EJ Documentation I-1
LWCF Search Record I-6

Brown County COC



Legend

Your Selections

- ☐ 2018 boundaries were used to map 'Your Selections'

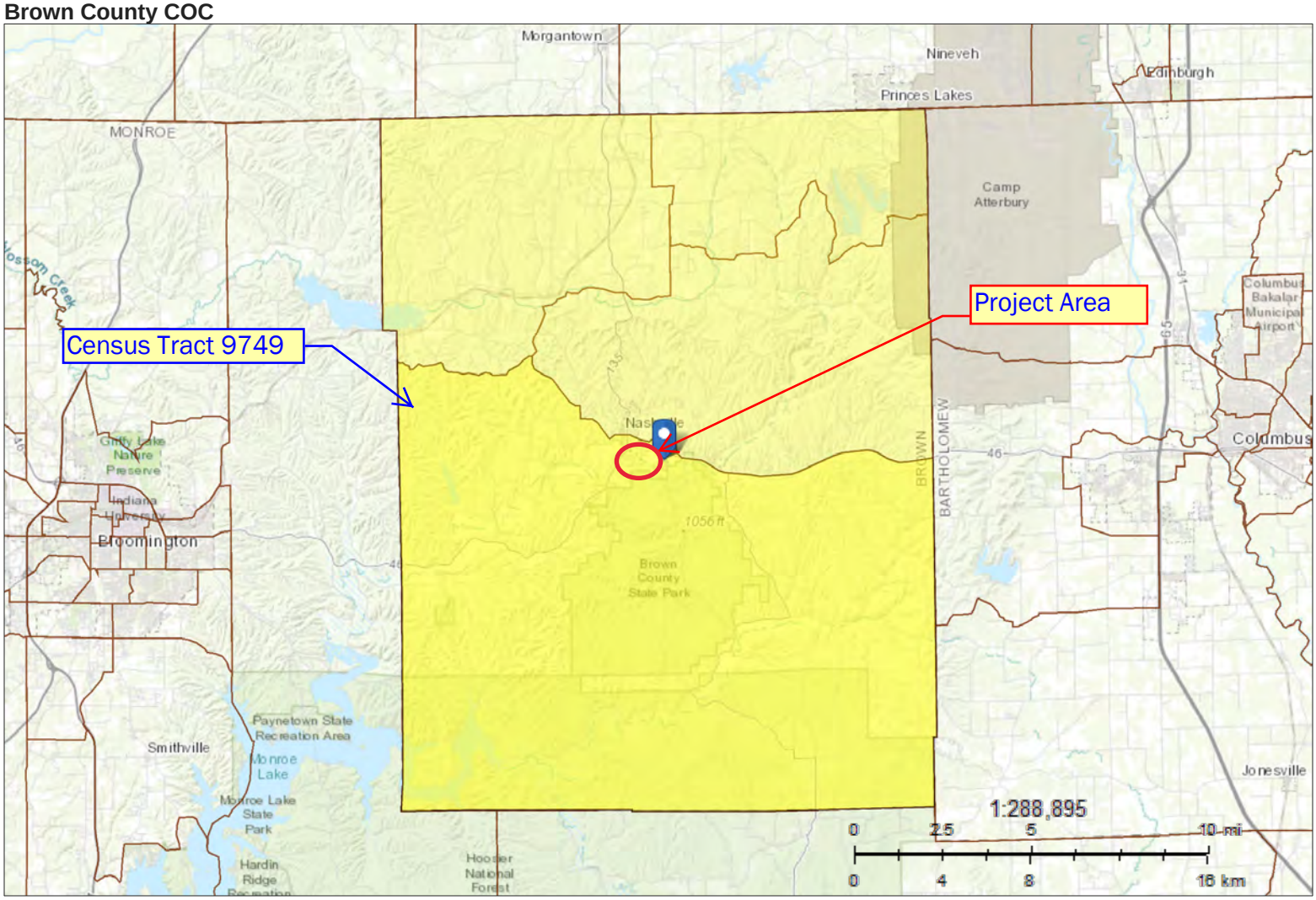
Selection Results

No Legend

Boundaries

No Legend

Brown County COC



Legend

Your Selections

- ☐ 2017 boundaries were used to map 'Your Selections'

Selection Results

No Legend

Boundaries

No Legend

C02003

DETAILED RACE
Universe: Total population
2013-2017 American Community Survey 5-Year Estimates

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

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

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

	Brown County, Indiana		Census Tract 9749, Brown County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	15,007	*****	4,466	+/-397
Population of one race:	14,781	+/-103	4,451	+/-393
White	14,537	+/-70	4,405	+/-396
Black or African American	80	+/-40	16	+/-25
American Indian and Alaska Native	0	+/-18	0	+/-11
Asian alone	119	+/-86	0	+/-11
Native Hawaiian and Other Pacific Islander	0	+/-18	0	+/-11
Some other race	45	+/-47	30	+/-45
Population of two or more races:	226	+/-103	15	+/-17
Two races including Some other race	38	+/-30	0	+/-11
Two races excluding Some other race, and three or more races	188	+/-98	15	+/-17
Population of two races:	226	+/-103	15	+/-17
White; Black or African American	34	+/-30	9	+/-13
White; American Indian and Alaska Native	141	+/-89	6	+/-11
White; Asian	0	+/-18	0	+/-11
Black or African American; American Indian and Alaska Native	13	+/-23	0	+/-11
All other two race combinations	38	+/-30	0	+/-11
Population of three races	0	+/-18	0	+/-11
Population of four or more races	0	+/-18	0	+/-11

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

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

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census

B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

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

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

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

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

	Brown County, Indiana		Census Tract 9749, Brown County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Total:	14,841	+/-94	4,300	+/-377
Income in the past 12 months below poverty level:	1,566	+/-434	300	+/-165
Male:	721	+/-220	159	+/-88
Under 5 years	29	+/-37	0	+/-11
5 years	0	+/-18	0	+/-11
6 to 11 years	54	+/-46	31	+/-42
12 to 14 years	0	+/-18	0	+/-11
15 years	0	+/-18	0	+/-11
16 and 17 years	15	+/-23	0	+/-11
18 to 24 years	78	+/-62	0	+/-11
25 to 34 years	142	+/-62	49	+/-37
35 to 44 years	72	+/-67	40	+/-46
45 to 54 years	157	+/-88	0	+/-11
55 to 64 years	114	+/-64	38	+/-38
65 to 74 years	53	+/-39	0	+/-11
75 years and over	7	+/-11	1	+/-4
Female:	845	+/-296	141	+/-104
Under 5 years	2	+/-9	0	+/-11
5 years	13	+/-24	0	+/-11
6 to 11 years	54	+/-57	32	+/-49
12 to 14 years	42	+/-41	0	+/-11
15 years	1	+/-5	0	+/-11
16 and 17 years	66	+/-46	0	+/-11
18 to 24 years	136	+/-101	0	+/-11
25 to 34 years	101	+/-58	22	+/-30
35 to 44 years	105	+/-77	24	+/-39
45 to 54 years	55	+/-33	0	+/-11
55 to 64 years	136	+/-65	35	+/-36
65 to 74 years	72	+/-78	3	+/-5
75 years and over	62	+/-37	25	+/-24
Income in the past 12 months at or above poverty level:	13,275	+/-436	4,000	+/-417
Male:	6,637	+/-201	1,916	+/-248
Under 5 years	242	+/-50	75	+/-73

	Brown County, Indiana		Census Tract 9749, Brown County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
5 years	110	+/-86	58	+/-83
6 to 11 years	408	+/-95	164	+/-93
12 to 14 years	220	+/-75	85	+/-60
15 years	107	+/-58	36	+/-40
16 and 17 years	200	+/-60	99	+/-76
18 to 24 years	404	+/-62	9	+/-12
25 to 34 years	514	+/-55	138	+/-93
35 to 44 years	785	+/-76	287	+/-113
45 to 54 years	939	+/-73	233	+/-67
55 to 64 years	1,194	+/-61	373	+/-92
65 to 74 years	1,046	+/-25	291	+/-69
75 years and over	468	+/-22	68	+/-38
Female:	6,638	+/-303	2,084	+/-253
Under 5 years	281	+/-13	60	+/-49
5 years	107	+/-74	0	+/-11
6 to 11 years	414	+/-103	158	+/-83
12 to 14 years	189	+/-83	103	+/-77
15 years	49	+/-38	7	+/-14
16 and 17 years	134	+/-59	55	+/-51
18 to 24 years	357	+/-101	40	+/-36
25 to 34 years	532	+/-65	123	+/-63
35 to 44 years	640	+/-72	238	+/-90
45 to 54 years	1,036	+/-46	385	+/-133
55 to 64 years	1,264	+/-69	393	+/-116
65 to 74 years	1,064	+/-38	383	+/-64
75 years and over	571	+/-77	139	+/-54

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

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

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

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

Explanation of Symbols:

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

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated December 2019)

ProjectNumber	SubProjectCode	County	Property
1800078	1800078	Brown	Brown County State Park
1800106	1800106	Brown	Brown County State Park
1800161	1800161B	Brown	Brown County State Park
1800171	1800171A	Brown	Brown County State Park
1800175	1800175	Brown	Brown County State Park
1800305	1800305A	Brown	Brown County State Park
1800306	1800306	Brown	Yellowwood State Forest
1800312	1800312A	Brown	Brown County State Park
1800327	1800327A	Brown	Brown County State Park
1800363	1800363C	Brown	Brown County State Park
1800374	1800374	Brown	Brown County State Park
1800405	1800405X	Brown	Whip-Poor-Will Woods Nature Preserve
1800413	1800413I	Brown	Brown County State Park
1800428	1800428A	Brown	Brown County State Park
1800428	1800428B	Brown	Yellowwood State Forest
1800627	1800627	Brown	Yellowwood State Forest

Source:
https://www.in.gov/indot/2523.htm