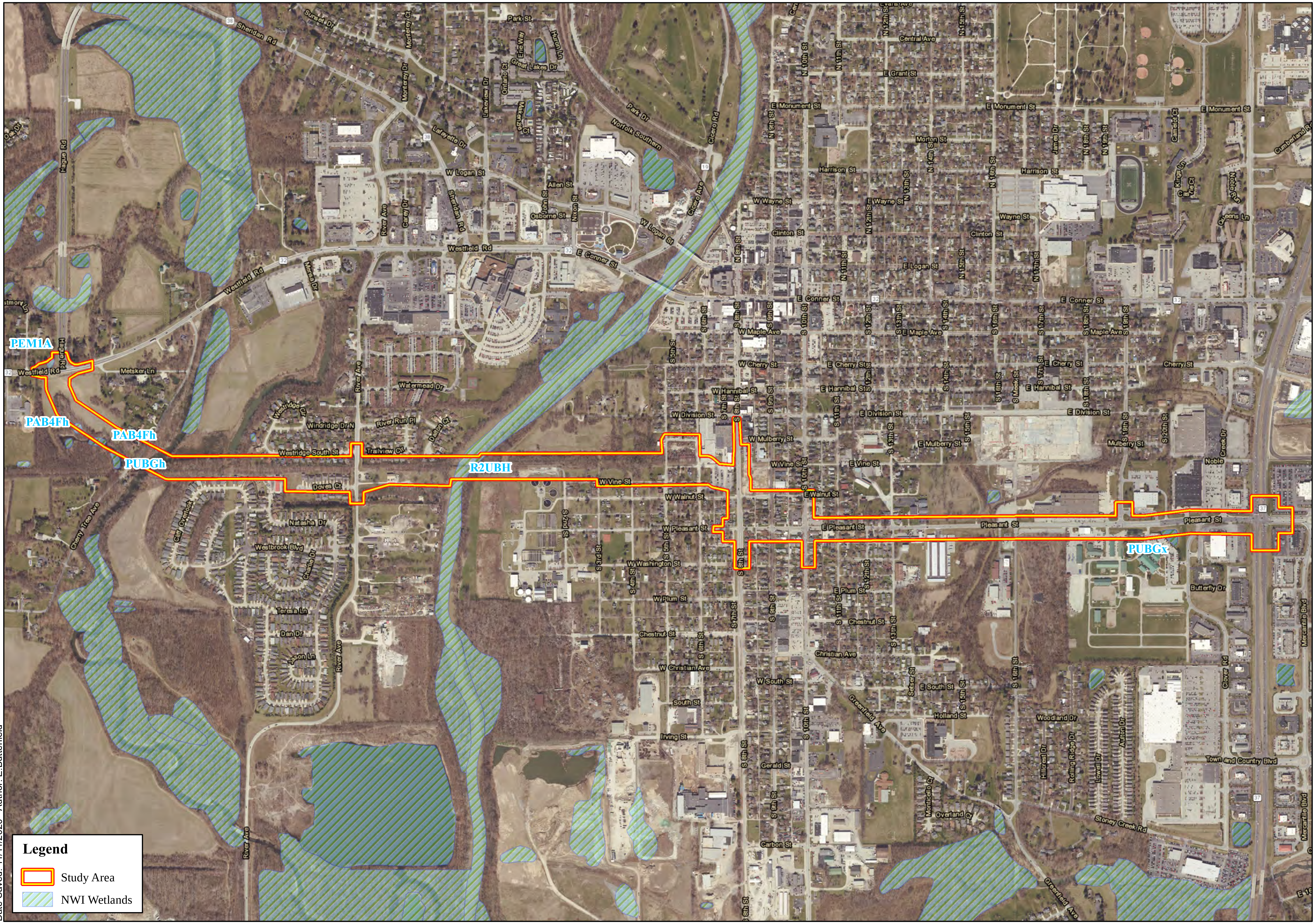
Appendix F

Water Resources



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CHA

NWI Wetlands Map

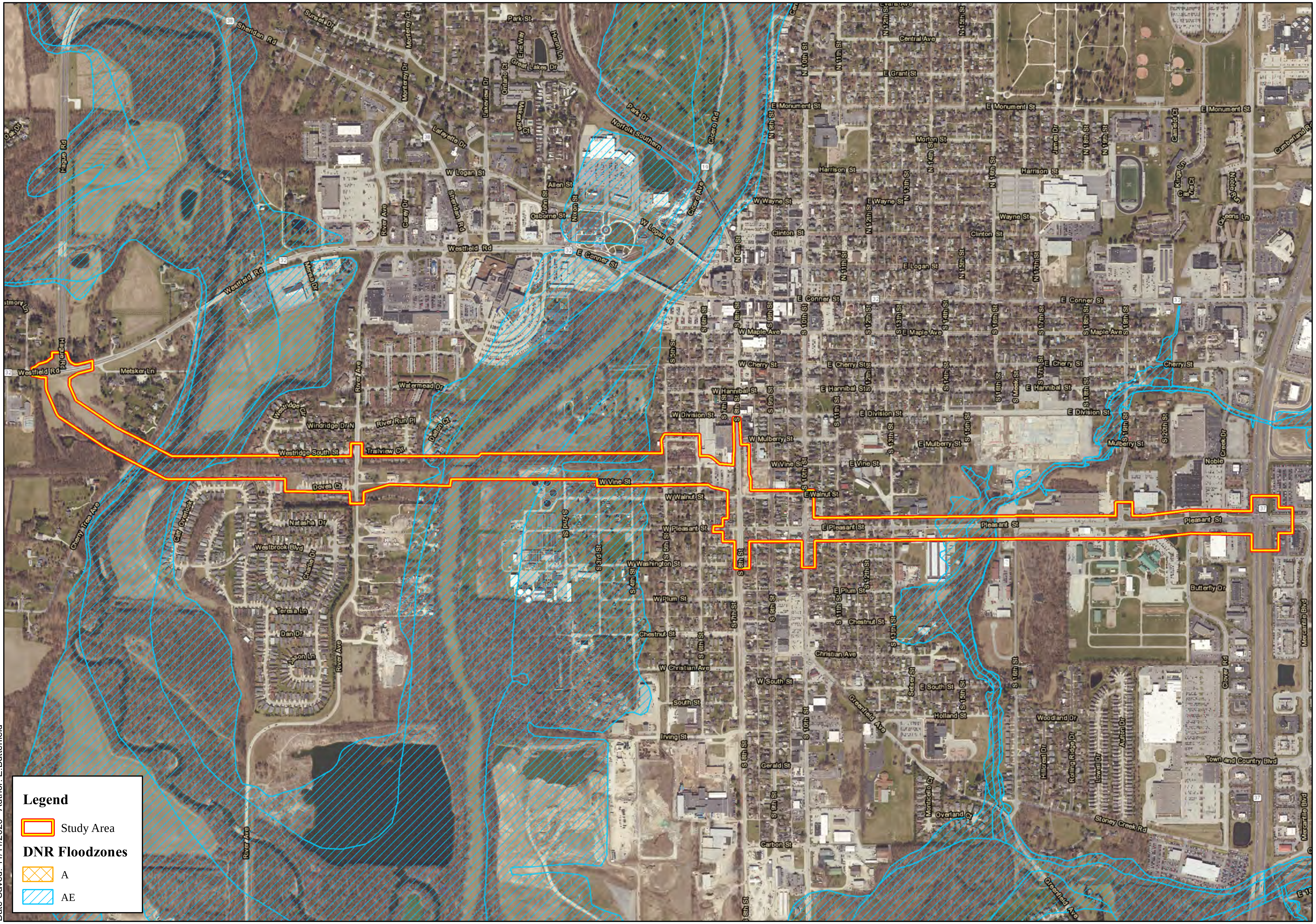
East-West Corridor Project
Noblesville, Hamilton County, Indiana

DES No
TBD

CHA Project No
059473

Scale 1" = 900'

Image Courtesy of the IndianaMap - Photo Date: 2017
NWI Wetland data courtesy of the
National Wetlands Inventory produced by the U.S. Fish and Wildlife Service



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Indiana Department of Transportation

CHA

IDNR Floodzones Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

DES No TBD

CHA Project No 059473

Scale 1" = 900'

Image Courtesy of the IndianaMap
Photo Date: 2017
Floodzones Courtesy of the Indiana Department of Natural Resources

Wetland Delineation and Waters of the US Report

East-West Corridor Project

Noblesville Township, Hamilton County, Indiana

Report Completed: November 13, 2020
Revised: February 22, 2021

Prepared for:

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Wetland Delineation and Waters of the US Report
East-West Corridor Project
Noblesville Township, Hamilton County, Indiana

I. Introduction

The City of Noblesville is proposing to proceed with the development of an East-West corridor in Noblesville Township, Hamilton County, Indiana. The purpose of this investigation was to identify wetlands and waterways within and adjacent to the project area. A routine wetland determination, per the *1987 Corps of Engineers Wetland Delineation Manual (Y-87-1)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (*Version 2.0) was conducted. This report details the findings of the investigation.

The project is located along Pleasant Street, starting at State Road (SR) 37 and heading west, tying into Hague Road, in of the City of Noblesville, Indiana (Appendix A, State Location Map). Specifically, the project is located in Sections 1, 2, and 6 Township 18 North, Range 1 and 5 East as shown on the Noblesville, Indiana United States Geological Survey (USGS) 7.5 Minute Quadrangle (Appendix A, USGS Project Location Map).

II. Existing Data

7.5 Minute USGS Quadrangle Maps

The USGS map was reviewed to determine the topography and drainage patterns within the project area. The map indicates that the project area and surrounding terrain is rolling with the elevation ranging from approximately 770 to 790 feet. Three blue line perennial streams; an unnamed tributary to Stony Creek, the White River and Cicero Creek were mapped within the project area.

Drainage basins are divided into hydrologic units by the USGS based on major river systems. The project area is within three 12-digit Hydrologic Unit Codes (HUC); 051202010701, Stony Creek - White River Watershed, 051202010610, Morse Reservoir – Cicero Creek Watershed, and 051202010704, William Lehr Ditch – Stony Creek Watershed.

National Wetland Inventory (NWI) Map

The U.S. Fish and Wildlife Service (USFWS) NWI maps identify potential wetlands based on high-level imagery interpretation. The wetlands are then classified by type utilizing the Cowardin classification system. The classification system provides information on wetland vegetation type, water regime, and any relevant alterations. This level of mapping does not determine regulatory boundaries. The NWI map was evaluated for the presence of potential jurisdictional wetlands within the project area (Appendix A, NWI Wetlands Map). Table 1 provides a summary of the NWI wetlands that are partially within the project area.

Table 1. Summary of NWI Wetlands

NWI Code	Wetland Type	Description	Location to Project Area
PAB4Fh	Freshwater pond	Palustrine, Aquatic Bed, floating vascular, semipermanently flooded and diked/impounded	Partially within (2)
PEM1A	Freshwater emergent	Palustrine, emergent, persistent and temporary flooded	Partially within (1)
PUBGx	Freshwater pond	Palustrine, unconsolidated bottom, intermittently exposed and excavated	Partially within (1)

NWI Code	Wetland Type	Description	Location to Project Area
PUBGh	Freshwater pond	Palustrine, unconsolidated bottom, intermittently exposed and diked/impounded	Partially within (1)
R2UBH	Riverine	Riverine, lower perennial, unconsolidated bottom, permanently flooded	Extends through (1)

[1]In parentheses, the number of each wetland type identified within and adjacent to the project area is provided.

County Soil Survey Map

The Natural Resources Conservation Service (NRCS) Web Soil Survey was reviewed to determine soil classification within the project area (Appendix A, NRCS Soils Map). Seventeen (17) soil types were identified within the project area (Table 2). Four (4) soil types were identified as hydric; Houghton muck (Ho), Palms muck (Pa), Patton silty clay loam (Pn), and Sloan silty clay loam (Sx).

Table 2. Soil Summary

Soil Type	Symbol	Drainage Rating	Hydrology	Hydric Rating	Hydric
Crosby Silt Loam, 0 - 2% slopes	CrA	Somewhat poorly drained	None	2%	Partially
Fox loam, 0 – 2% slopes	FnA	Well drained	None	4%	Partially
Fox loam, 2 - 6% slopes	FnB2	Well drained	None	6%	Partially
Fox clay loam, 8 - 18% slopes	FxC3	Well drained	None	0%	No
Gessie silt loam, 0 – 2% slopes	Ge	Well drained	Frequent Flooding	0%	No
Hennepin loam, 18 -50% slopes	HeF	Well drained	None	0%	No
Houghton muck	Ho	Very poorly drained	None	100%	Yes
Miami silt loam, 0 – 2% slopes	MmA	Moderately well drained	None	0%	No
Miami silt loam, 2 – 6% slopes	MmB2	Moderately well drained	None	5%	Partially
Miami silt loam, 12 – 18% slopes	MmD2	Moderately well drained	None	0%	No
Ockley silt loam, 0 – 2% slopes	OcA	Well drained	None	0%	No
Ockley silt loam, 2 -6% slopes	OcB2	Well drained	None	5%	Partially
Orthents	Or	Well drained	None	0%	No
Palms muck	Pa	Very poorly drained	None	100%	Yes
Patton silty clay loam, 0 – 2% slopes	Pn	Poorly drained	None	90%	Yes
Pits	Pt	Well drained	None	0%	No
Sloan silty clay loam	Sx	Very poorly drained	Frequent Flooding	100%	Yes

Flood Map

The Flood Insurance Rate Maps (FIRM) for the project area were reviewed for the presence of Special Flood Hazard Areas as defined by the Federal Emergency Management Agency (FEMA) (Appendix A, FEMA Floodzone Map). The project was identified crossing Zone AE of the White River, Cicero Creek, and Elwood Wilson Drain floodplains. Zones AE is defined as areas subject to inundation by the 1-percent-annual-chance flood event. Zone AE is generally determined by detailed hydraulic analyses and therefore, Base Flood Elevations (BFEs) or flood depths are shown within this zone.

III. Methodology

Wetland Delineation

The project area was analyzed using methods outlined in the *1987 Corps of Engineers Wetland Delineation Manual (Y-81-1)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0). These manuals require wetland boundaries to be delineated using a 3-parameter approach: hydrophytic vegetation, hydric soils, and wetland hydrology. Hydrophytic vegetation is met by the dominance of wetland species; plants identified with an indicator status of OBL, FACW, and FAC. Hydric soil is caused by anaerobic conditions and is observed by the presence of field indicators including; gray or dark brown color, mottling, gleying, muck and/or peat, hydrogen sulfide odor, or iron-manganese masses. Lastly, wetland hydrology is met by the presence of water for more than 5 percent of the growing season; one primary indicator or two secondary indicators must be observed.

Waters of the U.S.

Streams that may be considered Waters of the U.S. are documented with supporting evidence of potential jurisdiction. If a stream contains an ordinary high water mark (OHWM), typically defined as a defined bed and bank, then additional characterization is completed. Identified streams are listed by the name provided on the USGS map, or if not named, is listed as an unnamed tributary (UNT). Connections to the nearest Traditional Navigable Waterway (TNW) are then identified. Wetlands are considered Waters of the U.S. if they are abutting or adjacent to a stream that is a Waters of the U.S.

IV. Field Reconnaissance

CHA staff conducted a field investigation on June 10, August 14 and October 27, 2020 to determine the presence of wetlands, Waters of the U.S., and Waters of the State within the project area. An agency site visit was conducted on January 27, 2021 with the United States Army Corps of Engineers (USACE) to review jurisdiction of identified resources. Locations of data points, wetlands and streams are provided in Appendix A on the Wetland Delineation Map. Historic aerials were reviewed to determine potential connections to Waters of the U.S. and is provided in Appendix B. Photographs of the project area, and Wetland Delineation Data Forms are included in Appendices C and D, respectively. The following provides a brief description of the findings of the field investigation.

Streams

Unnamed Tributary (UNT) 1 to Cicero Creek

UNT1 to Cicero Creek is an intermittent stream with an OHWM 6 feet wide and 0.25 feet deep, with substrate consisting mostly of gravel and sand. UNT 1 contains 290 feet within the project area. The portion of the stream within the project area has a drainage area of 0.03 square mile. The stream has aquatic habitat including meanders and rootwads and has a narrow to wide riparian buffer consisting of *Salix nigra* (black willow, OBL), *Platanus occidentalis* (American sycamore, FACW), and *Carex grayi* (gray's sedge, FACW). This stream appears to have been created through excavation approximately 20 years ago. The quality of the stream is average. UNT1 to Cicero Creek enters the project area southeast of Cicero Creek, flows west into Cicero Creek.

Unnamed Tributary (UNT) 2 to Cicero Creek

UNT 2 to Cicero Creek is a perennial stream with an OHWM 33 feet wide and unknown depth, with substrate consisting mostly of gravel and sand. UNT 2 contains 784 feet within the project area. The portion of the stream within the project area has a drainage area of 0.07 square mile. The stream has aquatic habitat

including overhanging vegetation and has a wide riparian buffer consisting of *Acer negundo* (box elder, FAC) and *Laportea canadensis* (wood nettle, FACW). The stream appears to have been created through excavation approximately 40 years ago. The quality of the stream is average. UNT2 flows west into Cicero Creek.

Cicero Creek

Cicero Creek is a perennial stream with an OHWM 105 feet wide and an unknown depth, with substrate consisting mostly of gravel and sand. Cicero Creek contains 268 feet within the project area. The portion of the stream within the project area has a drainage area of 204.5 square miles. The stream has aquatic habitat including pools, riffles, and root wads, and has a wide riparian buffer consisting of Rosa *multiflora* (multiflora rose, FACU), *Lonicera maackii* (bush honeysuckle, FACU), *Acer negundo*, and *Laportea canadensis*. Mussels and fish were observed within the stream. The quality of the stream is high. Cicero Creek enters the project area south of Westfield Road, flows south and continues off-site. Cicero Creek is considered a Waters of the U.S.

White River

White River is a perennial stream with an OHWM 200 feet wide and 6 feet deep, with substrate consisting mostly of gravel and sand. The White River contains 271 feet within the project area. The portion of the stream within the project area has a drainage area of 853.9 square miles. The stream has aquatic habitat including pools, riffles, and root wads, and has a narrow riparian buffer consisting of *Acer saccarinum* (silver maple, FACW), *Catalpa speciosa* (northern catalpa, FACU), *Acer negundo*, and *Phalaris arundinacea* (reed canary grass, FACW). Mussels and fish were observed within the stream. The quality of the stream is average. White River enters the project area south of Westfield Road, flows south and continues off-site. White River is considered a Waters of the U.S.

Elwood Wilson Drain

Elwood Wilson Drain (Unnamed Tributary to Stony Creek) is a perennial stream with an OHWM 17 feet wide and 2 feet deep, with substrate consisting mostly of gravel and sand. Elwood Wilson Drain contains 244 feet within the project area. The portion of the stream within the project area has a drainage area of 4.9 square mile. The stream has aquatic habitat including pools and riffles and has a narrow riparian buffer. Mussels and fish were observed within the stream. The quality of the stream is average. Elwood Wilson Drain enters the project area through Pleasant Street on the east half of the project area, flows south and continues off-site. Elwood Wilson Drain is considered a Waters of the U.S and is also designated a legal drain in Hamilton County.

Roadside Ditches

No roadside ditches were identified within the project.

Wetlands

A total of seven data points (DPs) were taken along the project area. DP-1 was located on the east side of the White River. DP-2 was located on the east side of Cicero Creek. DP-3 was located within Wetland A and DP-4 was in an upland area adjacent to Wetland A. DP-5 was located on the west side of Elwood Wilson Drain. DP-6 was located within Wetland B and DP-7 was in an upland area adjacent to Wetland B. Table 3 provides a summary of these data points.

Data Point 1 was in an upland area on the east side of the White River. Dominant species at this data point included *Acer negundo*, *Celtis occidentalis* (hackberry, FAC), *Acer saccarinum*, *Cornus racemosa* (grey dogwood, FAC), *Laportea canadensis*, *Viola sororia* (common blue violet, FAC), and *Toxicodendron radicans* (poison ivy, FAC). The primary hydrology indicator met was Drift Deposits

(B3). Geomorphic Position (D2) and Fac-Neutral Test (D5) were the secondary hydrology indicators met. No hydric soil indicators were met.

Data Point 2 was in an upland area on the east side of Cicero Creek. Dominant species at this data point included *Acer negundo*, *Ulmus americana* (American elm, FAC), *Populus deltoides* (eastern cottonwood, FAC), *Sambucus nigra spp. canadensis* (common elderberry, FACW), *Cornus racemosa*, *Rudbeckia laciniata* (cut-leaf coneflower, FACW), *Cryptotaenia canaensis* (Canadian Honewort, FAC), *Laportea canadensis*, and *Toxicodendron radicans*. The primary hydrology indicator met was Sediment Deposits (B2). Geomorphic Position (D2) and Fac-Neutral Test (D5) were the secondary hydrology indicators met. No hydric soil indicators were met.

Data Point 5 was in an upland area on the west side of Elwood Wilson Drain in the man-made storm water treatment basin constructed in 2016. Dominant species at this data point included *Eleocharis obtusa* (blunt spikerush, OBL), *Carex vulpinoidea* (fox sedge, FACW), and *Juncus tenuis* (path rush, FAC). The primary hydrology indicators met were Water Marks (B1), Algal Mat or Crust (B4), and Oxidized Rhizospheres on Living Roots (C3). Saturation Visible on Aerial Imagery (C9) and Fac-Neutral Test (D5) were the secondary hydrology indicators met. No hydric soil indicators were met.

Wetland A

Wetland A is a forested, emergent and open water wetland that is 1.19 acre in size within the study area. This wetland is located west of Cicero Creek and extends south and west beyond the study area. The wetland is considered average quality based on the size, the surrounding forest, farmed and residential land use and hydrology. This wetland is connected to Cicero Creek with an overflow pipe through the impoundment. The wetland's contribution to water quality improvement to Cicero Creek is high, as it traps the sediment eroding from the agricultural field and nutrient and herbicide runoff.

Data Point 3 was located within Wetland A. The dominant species at this data point were *Fraxinus pennsylvanica* (green ash, FACW), *Populus deltoides*, *Glyceria striata* (fowl manna grass, OBL), and *Phalaris arundinacea*. This data point passed the Dominance Test and Prevalence Index, meeting the hydrophytic vegetation criterion. The soil profile, from 0 to 3 inches, was a sandy loam that had a color of 10YR 4/3 (100%). From 3 to 9 inches the silt loam soil had a color of 10YR 4/1 (85%) with a 10YR 3/6 (15%) redox concentrations in the pore lining. From 9 to 20 inches, was a silt loam that had a color of 10YR 2/1 (100%). The soil profile met the Depleted Matrix (F3) hydric soil indicator and therefore hydric soil criterion. Sediment deposits (B2) was the primary hydrology indicators observed at this point. Drainage Patterns (B10) and FAC-Neutral Test (D5) were the observed secondary hydrology indicators.

Data Point 4 was located in an upland area adjacent to Wetland A. The dominant species at this data point were *Morus rubra (*red mulberry, FACU*)*, *Fraxinus pennsylvanica*, *Lonicera japonica (*Japanese honeysuckle, FACU*)*, *Cornus racemosa*, *Alliaria petiolata (*garlic mustard, FAC*)*, *Sanicula canadensis (*Canadian black snakeroot, FACU), *and Vitis riparia (*river grape, FACW). No hydrology, hydric soil, or hydrophytic vegetation indicators were observed.

Wetland B

Wetland B is an emergent wetland that is 0.02 acre in size. This wetland is located east of the White River and the wetland extends north off-site into the mowed riparian area. The wetland is considered poor quality based on the size, the mowed vegetation and surrounding forest, farmed and residential land use and hydrology. Wetland B would not be considered a Waters of the U.S. and is isolated.

Data Point 6 was located within Wetland B. The dominant species at this data point was *Leersia oryoides* (rice cut grass, OBL). This data point passed the Dominance Test and Prevalence Index, meeting the hydrophytic vegetation criterion. The soil profile, from 0 to 6 inches, was a silty clay loam that had a color of 10YR 3/1 (50%) and a second matrix of 10YR 3/2 (45%) with a 7.5 YR 5/6 (5%) redox concentration in the matrix. From 6 to 18 inches the sandy clay loam soil had a color of 10YR 3/2 (50%) and a second matrix of 10YR 3/2 (45%) with a 7.5YR 5/6 (5%) redox concentrations in the matrix. The soil profile met the Redox Dark Surface (F6) hydric soil indicator and therefore meets the hydric soil criterion. Surface water (A1) and Saturation (A3) were the primary hydrology indicators observed at this point.

Data Point 7 was located in an upland area adjacent to Wetland B. The dominant species at this data point were *Trifolium pratense (*red clover, FACU*), Trifolium repens* (white clover, FACU), *Plantago major (*broadleaf plantain, FAC*),* and *Festuca arundinacea (*tall fescue, FACU). No hydrology, hydric soil, or hydrophytic vegetation indicators were observed.

Table 3. Summary of Data Points

Data Point	Photos	Latitude/ Longitude	Wetland Indicators Observed			Wetland/ Upland
			Hydrophytic Vegetation	Hydric Soils	Hydrology	
DP-1	DP-1, PP-27 to PP-29	40.0409385 -86.024058	Dominance Test, and Prevalence Index	None	Drift deposits (B3), Geomorphic position (D2) and FAC-Neutral test (D5)	Upland
DP-2	DP-2, PP-25, PP-26	40.040675 -86.0357618	Dominance Test, and Prevalence Index	None	Sediment deposits (B2), Geomorphic position (D2) and FAC-Neutral test (D5)	Upland
DP-3	DP-3, PP-3, PP-35	40.042637 -86.03985116	Dominance Test, and Prevalence Index	Depleted Matrix (F3)	Sediment deposits (B2), Drainage Patterns (B10) and FAC-Neutral test (D5)	Wetland
DP-4	DP-4, PP-32, PP-33	40.04275078 -86.03977975	None	None	None	Upland
DP-5	DP-5, PP-30, PP-31	40.038877 -86.00624	Dominance Test, and Prevalence Index	None	Water Marks (B1), Algal Mat or Crust (B4), Oxidized Rhizospheres on Living Roots (C3), Saturation Visible on Aerial Imagery (C9) and FAC-Neutral test (D5)	Upland
DP-6	DP-6, PP-55	40.041055 -86.023196	Rapid Test for Hydrophytic Vegetation, Dominance Test, and Prevalence Index	Redox Dark Surface (F6)	Surface Water (A1) and Saturation (A3)	Wetland
DP-7	DP-7, PP-56, PP-57	40.041105 -86.023251	None	None	None	Upland

Other Water Resources

One man-made stormwater treatment pond (Pond 1) was located east of the Elwood Wilson Drain and measures 0.43 acres within the project area. One man-made stormwater dry detention basin was located near DP-5 and measures 0.19 acres within the project area. These features were constructed in uplands for stormwater treatment and are exempt from USACE jurisdiction.

V. Conclusions

One intermittent stream and four perennial streams were identified within the project area (Table 4). UNT 1 and UNT 2 both appear to have been constructed in uplands, therefore may be exempt from USACE jurisdiction. Cicero Creek, White River, and Elwood Wilson Drain were identified as Waters of the U.S. and will be under the jurisdiction of the USACE.

Table 4. Summary of Stream Resources

Stream Name	Photos	Latitude/ Longitude	OHWM Width/ Depth	USGS Blue Line	Pools/ Riffles	Substrate	Stream Quality	Waters of the U.S.	Stream Type
UNT 1	PP-9, PP-10	40.040436 -86.035846	6.0′/0.25′	No	No	gravel and sand	Average	No	Intermittent
UNT 2	PP-11, PP-12	40.041028 -86.03365	33.0′/*	No	No	gravel and sand	Average	No	Perennial
Cicero Creek	PP-3 t0 PP-6, PP-8	40.040786 -86.036525	105.0′/*	Yes	Yes	gravel and sand	High	Yes	Perennial
White River	PP-15 to PP-18	40. 041347 -86.0244331	200.0′/*	Yes	Yes	gravel and sand	High	Yes	Perennial
Elwood Wilson Drain	PP-21 to PP-23	40.039293 -86.00524	17.0′/2′	Yes	Yes	gravel and sand	Average	Yes	Perennial

*unknown depth due to size of stream.

Two wetlands were identified within the project area. Wetland A is connected to Cicero Creek through a pipe that extends through the impoundment created by Cherry Tree Road and the railroad crossing. Jurisdictional status for Wetland A is unknown and will be decided by the USACE. Wetland B was not adjacent to or abutting a Waters of the US and therefore would likely be considered isolated. Table 5 provides a summary of the wetland resources.

Table 5. Summary of Wetland Resources

Wetland Name	Photos	Latitude/ Longitude	Wetland Type	Acres[1]	Wetland Quality	Waters of the U.S.
Wetland A	PP-34, PP-35	40.041714 -86.038584	PEM, PFO, POW	0.20 (PEM) 0.98 (PFO) 0.01 (POW)	Average	TBD
Wetland B	DP-6, PP-55	40.041135 -86.023112	PEM	0.02	Poor	No

[1]Acres of wetland within the project area, each of these wetlands extend offsite.

Pond 1 and the stormwater basin appear to be man-made for storm water treatment constructed in upland soils.

Table 6. Summary of Miscellaneous Water Resources

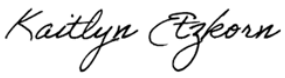
Resource Name	Photos	Latitude/ Longitude	USGS Blue Line	Water Resource Quality	Waters of the U.S.
Pond 1	PP-24	40.038915 -85.998599	No	Poor	No
Stormwater Basin	PP-30, PP-31	40.038877 -86.00624	No	Poor	No

Every effort should be taken to avoid and minimize impacts to these water resources. If impacts are necessary, then mitigation may be required. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the USACE.

VI. Acknowledgement

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience, and professional judgement in conformance with the 1987 Corps of Engineers Wetland Delineation Manual, the appropriate regional supplement, the 33 CFR 328.3, and other appropriate agency guidelines.

Report Prepared By:



02/03/2021
Date

Kaitlyn Etzkorn
Environmental Scientist
CHA Consulting, Inc.

Report Reviewed By:

02/22/2021
Date

Summer Elmore, PWS
Senior Scientist
CHA Consulting, Inc.

VII. References

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

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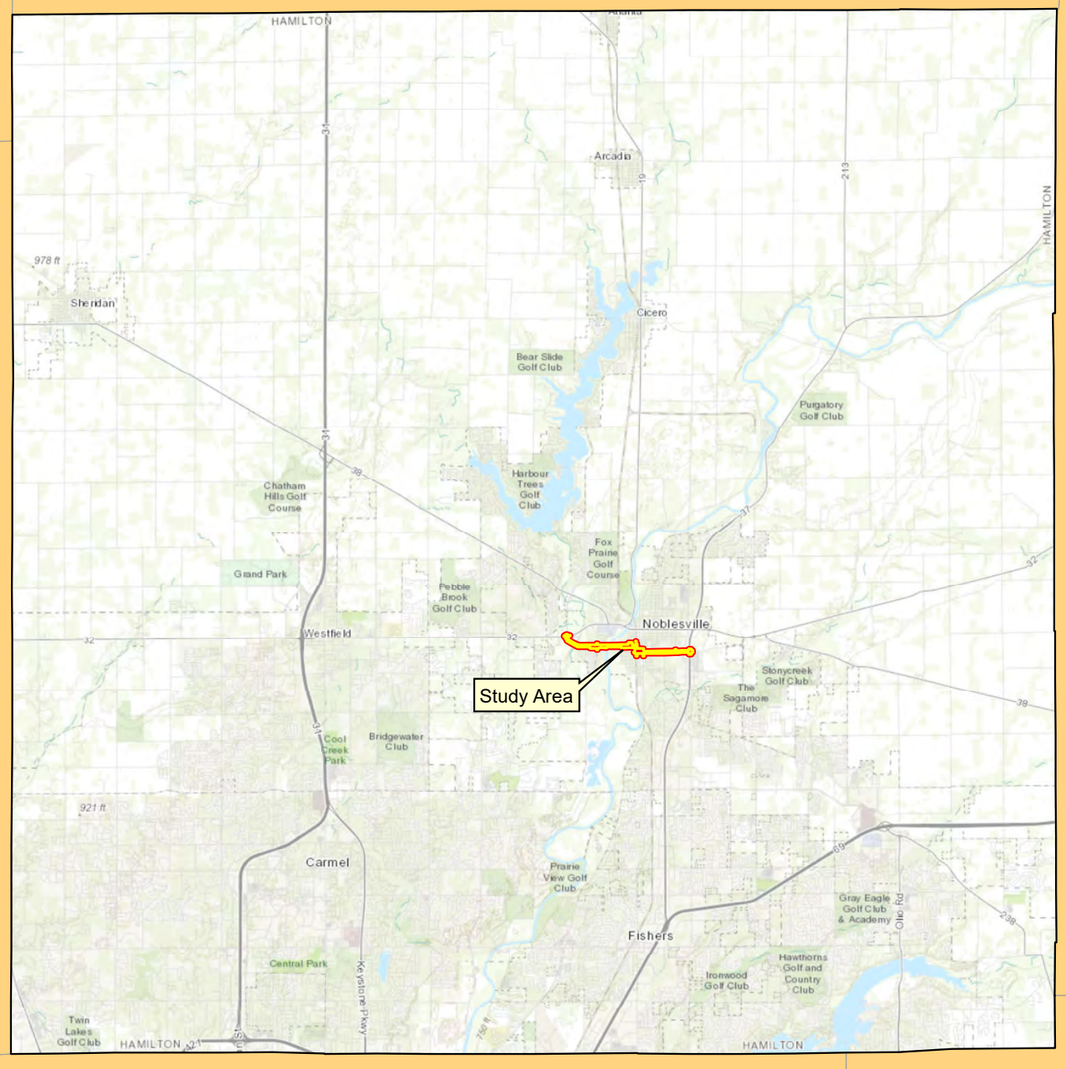
VIII. List of Appendices

- Appendix A: Project Location and Water Resource Maps
- Appendix B: Historic Aerial Photograph Map
- Appendix C: Water Resource Photographs
- Appendix D: Wetland Determination Data Forms

Appendix A: Project Location and Water Resource Maps

County

Tipton County



Madison County

Boone County

Hendricks County

Marion County

Hancock County

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State Location Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

DES No
TBD

CHA Project No
059473

Scale 1" = 14,000'

County boundaries and transportation network courtesy of the Indiana Spatial Data Portal

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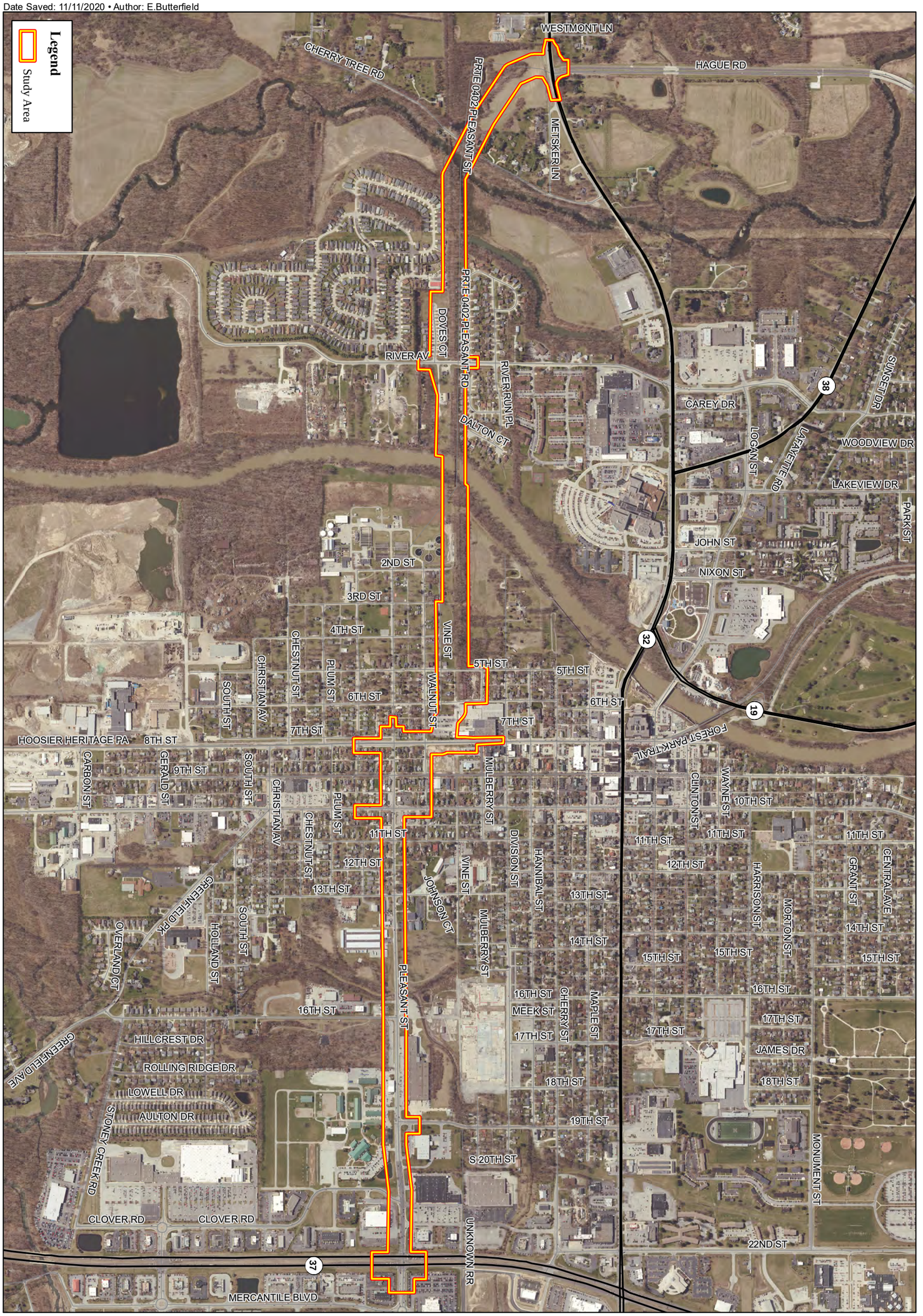
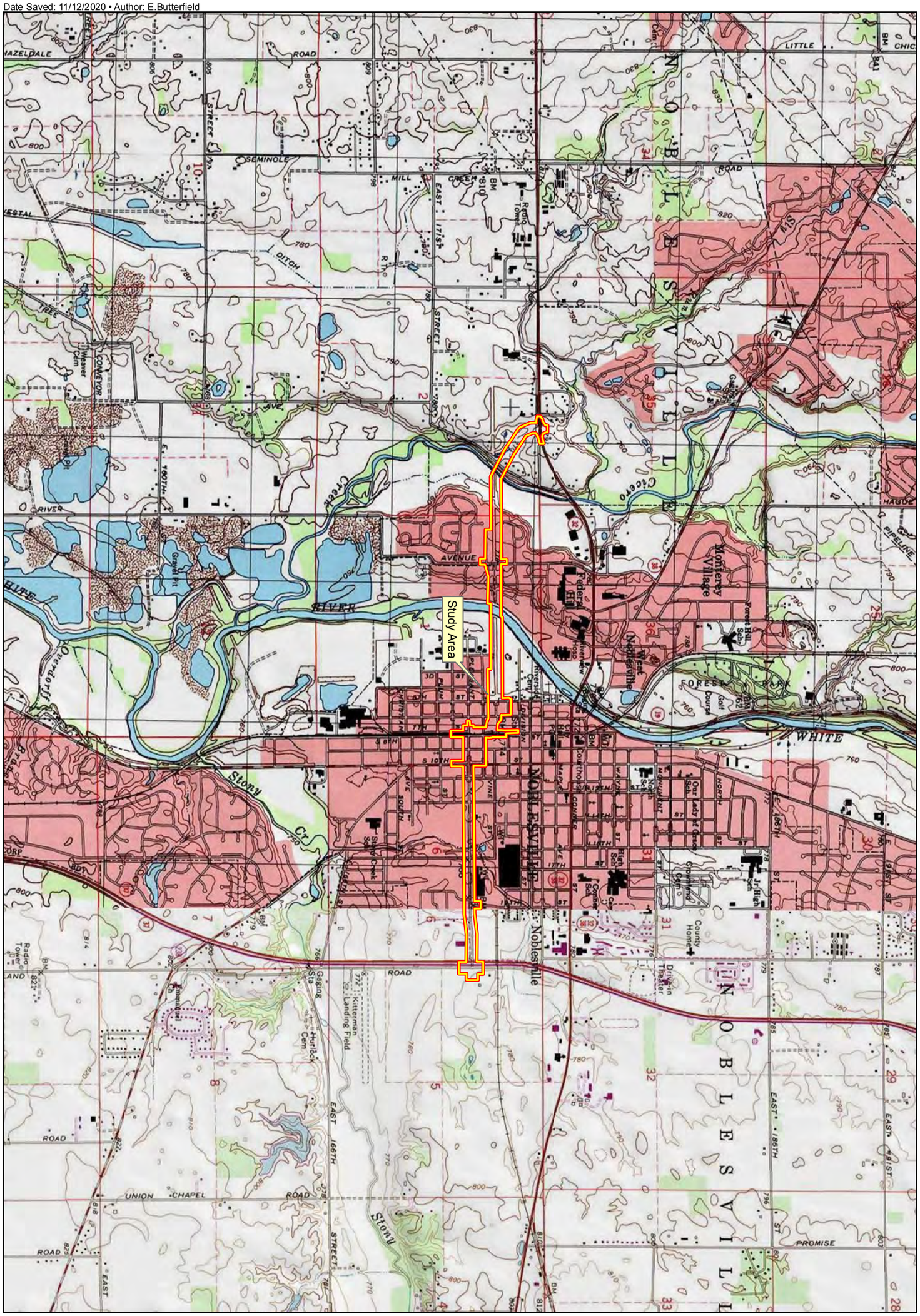


Scale 1" = 900'	CHA Project No 059473	DES No TBD
Image Courtesy of the IndianaMap Photo Date: 2017		

Aerial Location Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

Date Saved: 11/12/2020 • Author: E.Butterfield

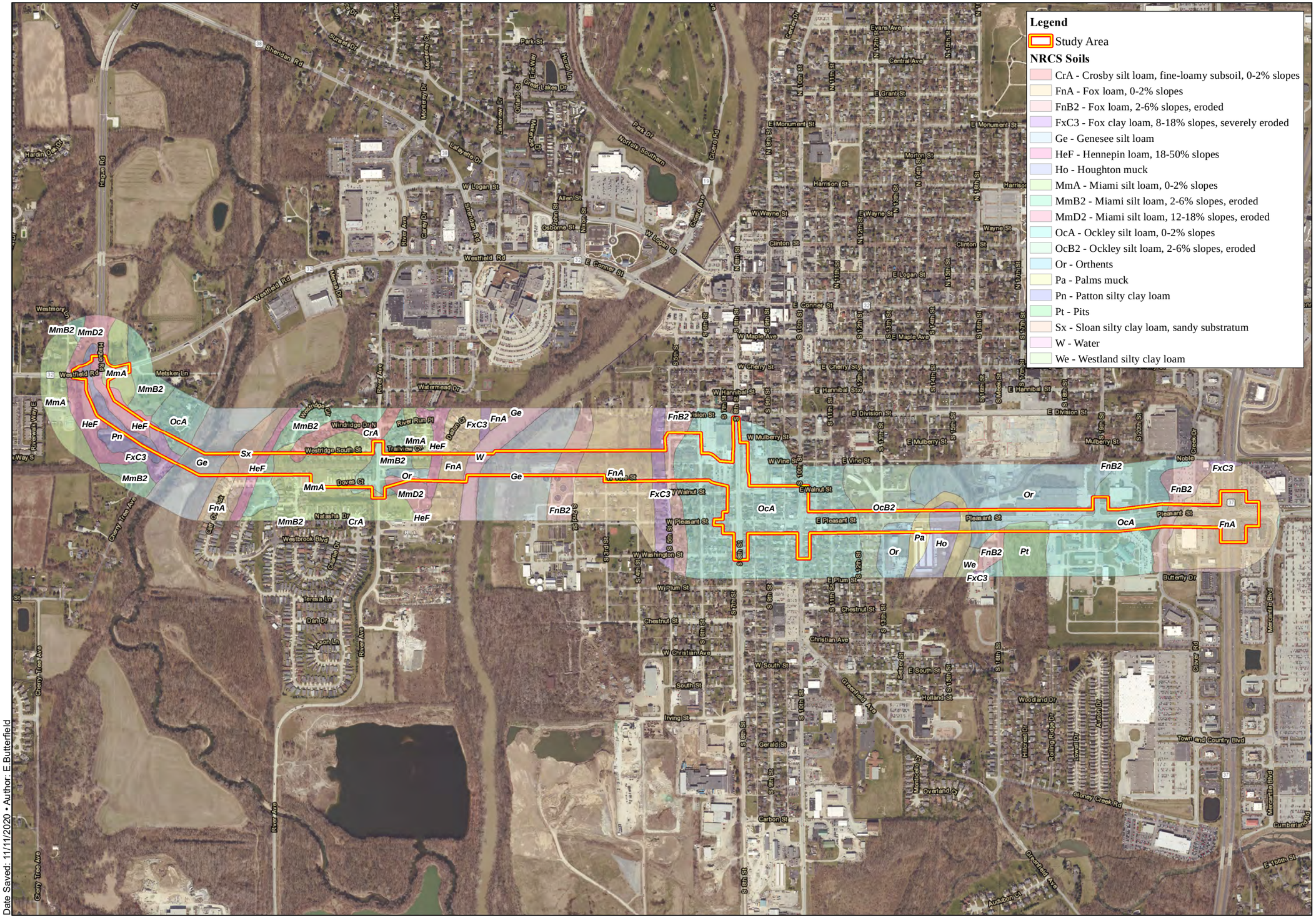


Scale 1" = 2,000'	CHA Project No 059473	DES No TBD

Service Layer Credits:
Copyright: © 2013 National Geographic Society, I-cubed
Noblesville & Riverwood USGS Quadrangles Date: 1998 & 1994

USGS Project Location Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana



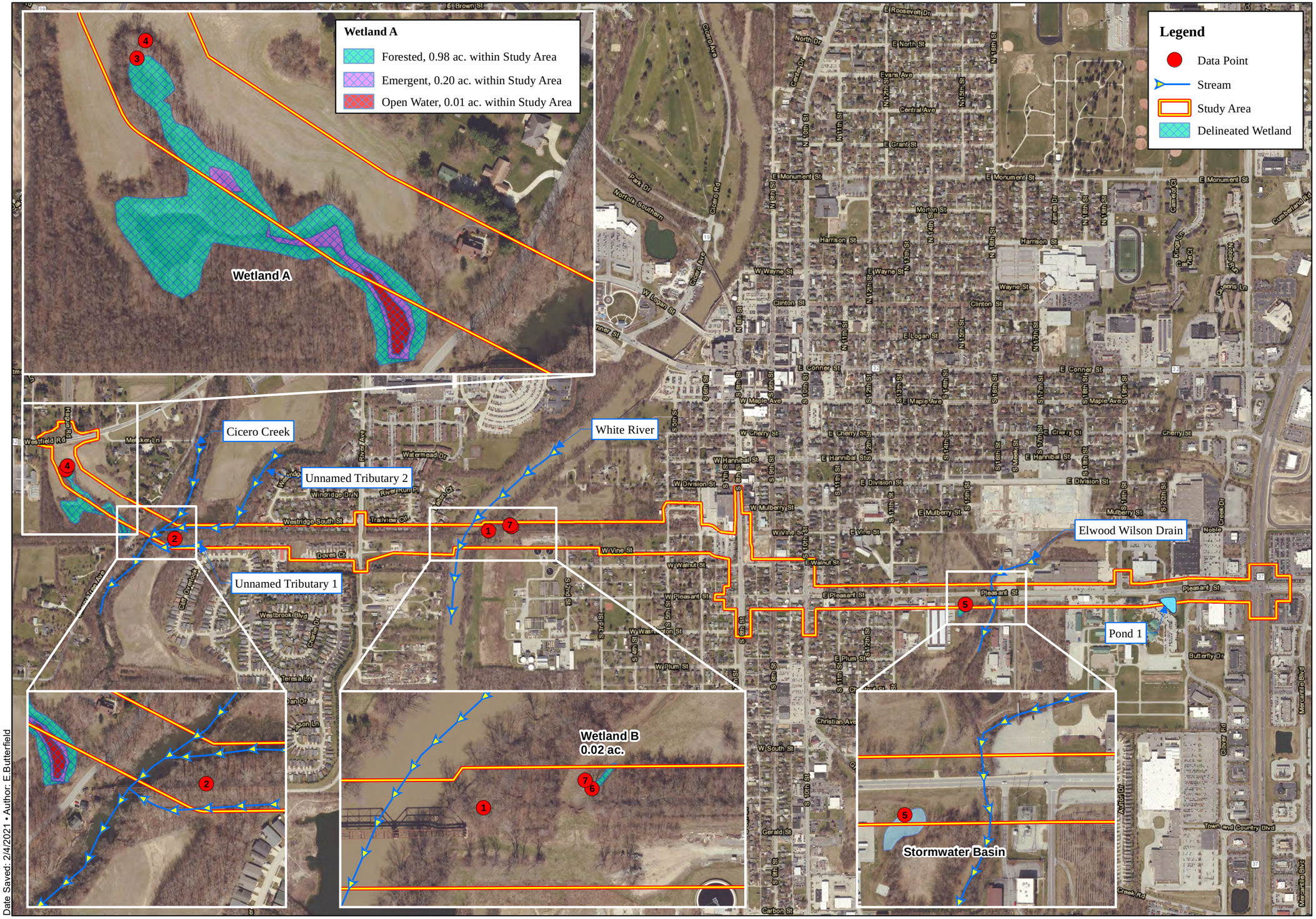
Date Saved: 11/11/2020 • Author: E.Butterfield

NRCS Soils Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

Scale 1" = 950'	CHA Project No 059473	DES No TBD

Image Courtesy of the Indiana Map - Photo Date: 2017
Soil Data Courtesy of the Natural Resource Conservation Service



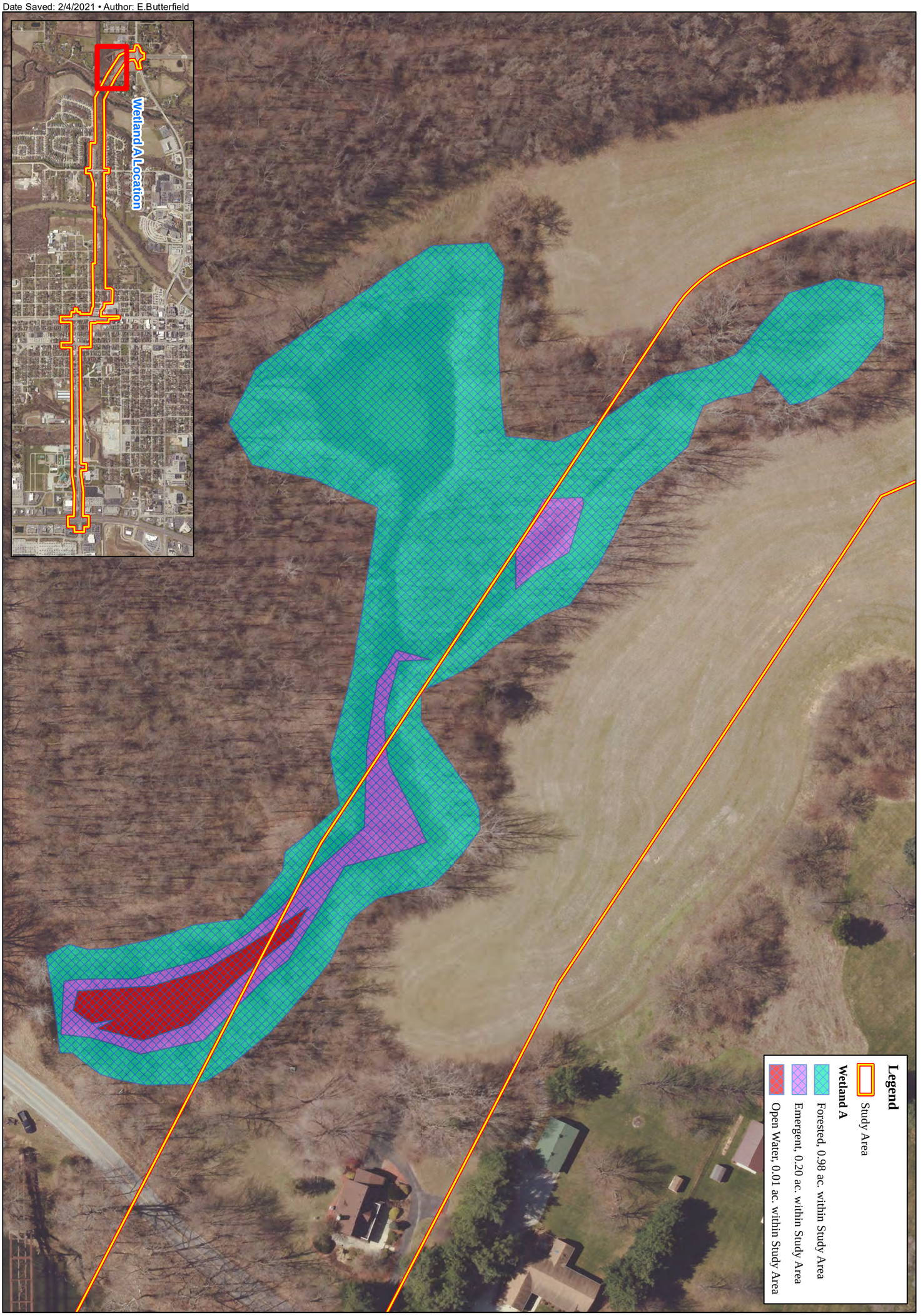
Date Saved: 2/4/2021 • Author: E.Butterfield

Wetland Delineation Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

DES No TBD	*Image Courtesy of the IndianaMap*
CHA Project No 059473	*Photo Date: 2017*
Scale 1" = 900'	

Date Saved: 2/4/2021 • Author: E.Butterfield

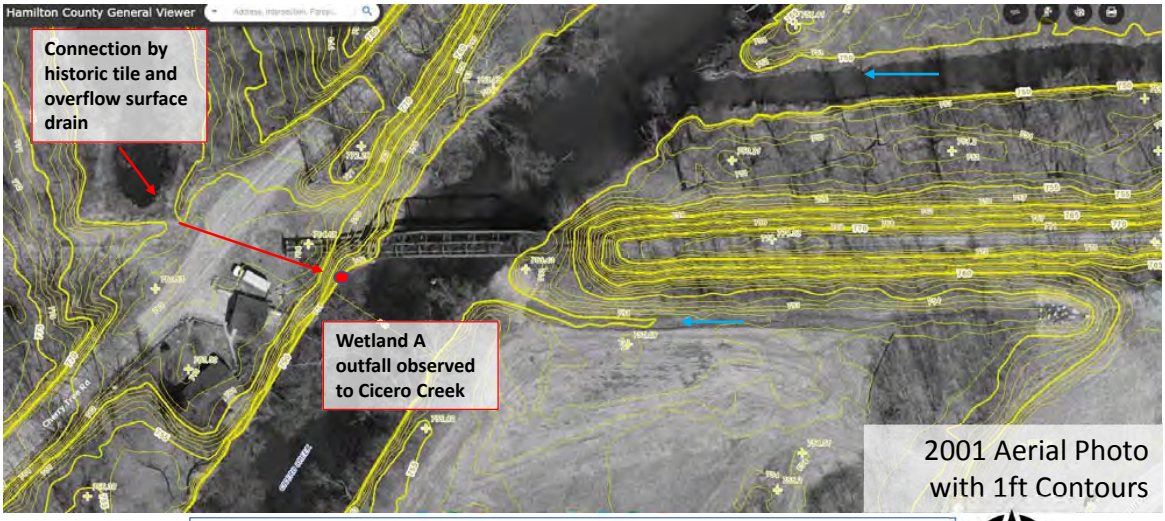


Scale 1" = 75'	CHA Project No 059473	DES No TBD
Image Courtesy of the IndianaMap *Photo Date: 2017*		

Wetland A Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

Appendix B: Historic Aerial Photograph Map



Historic Aerial Photograph – Wetland Research
Data obtained from https://gis1.hamiltoncounty.in.gov/GeneralViewer/ on 10/21/20
Not to Scale

Appendix C: Water Resource Photographs

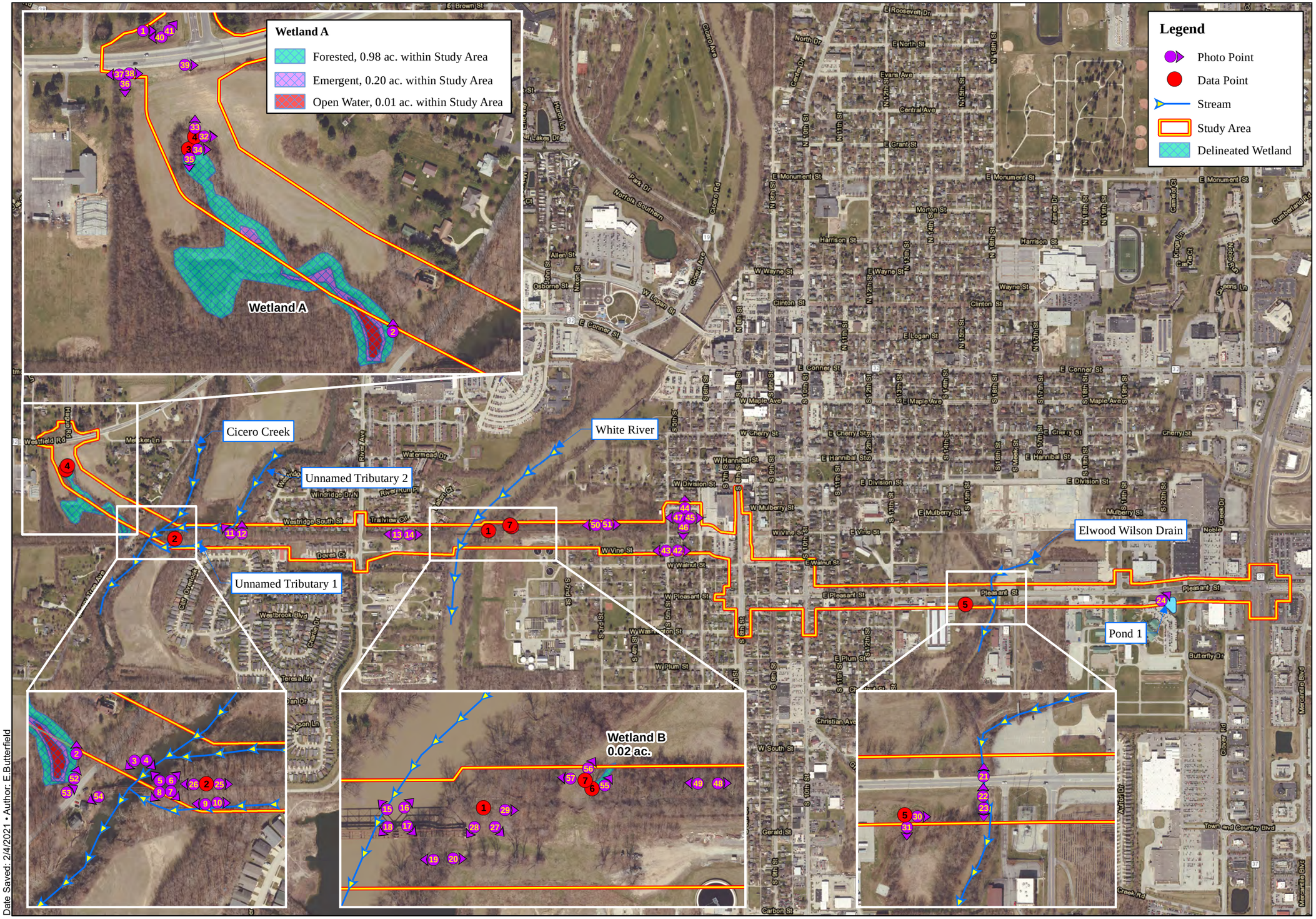


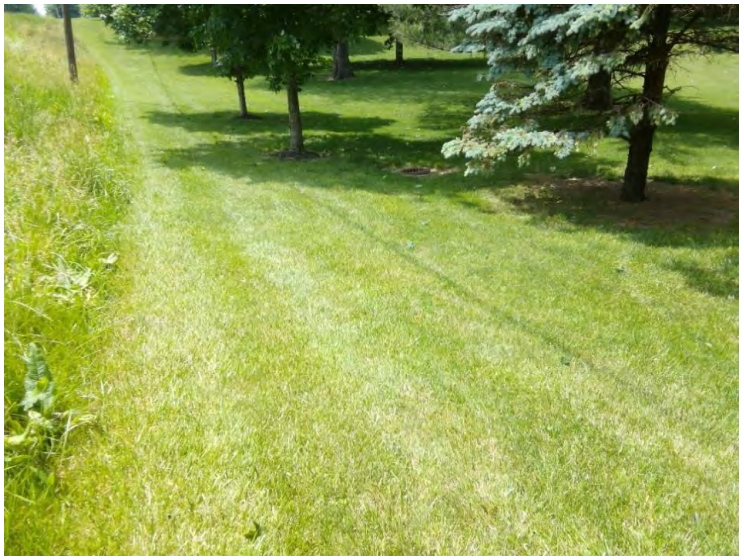
Photo Location Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

DES No TBD	*Image Courtesy of the IndianaMap*
CHA Project No 059473	*Photo Date: 2017*
Scale 1" = 900'	

Appendix C: East-West Corridor Project Photographs

Photos taken June 10, August 14, and October 27, 2020



PP 1 (east); Looking at location of mapped NWI wetland. No wetland indicators present.

PP 2 (north); Looking into the southeastern portion of Wetland A.

PP 3 (southwest); Looking downstream at vegetation along Cicero Creek along the western side of the creek.

PP 4 (southeast); Looking downstream at Cicero Creek along the creek bed.

PP 5 (northwest); Looking upstream at Cicero Creek from the east bank.

PP 6 (northeast); Looking upstream along Cicero Creek along the eastern side.

PP 7 (southeast); Looking downstream along Cicero Creek at vegetation on the eastern bank of the creek.

PP 8 (southwest); Looking downstream across Cicero Creek at the vegetation across the Creek.

PP 9 (west); Looking down stream at UNT 1.

PP 10 (east); Looking upstream at UNT 1.

PP 11 (northwest); Looking upstream at UNT 2.

PP 12 (north); Looking upstream at UNT 2 at vegetated bank.

PP 13 (west); Looking along old railroad bed.

PP 14 (east); Looking along the old railroad bed.

PP 15 (northwest); Looking upstream at the White River.

PP 16 (northeast); Looking upstream at the White River at vegetated bank.

PP 17 (southeast); Looking downstream the White River at the vegetated bank.

PP 18 (southwest); Looking downstream the White River at the vegetated bank.

PP 19 (west); Looking at the White River.

PP 20 (east); Looking at the mowed area by the White River.

PP 21 (north); Looking upstream the Elwood Wilson Drain.

PP 22 (north); Looking upstream at the culvert for the Elwood Wilson Drain.

PP 23 (south); Looking downstream the Elwood Wilson Drain.

PP 24 (northeast); Looking at the man-made stormwater treatment pond.

DP 2; Looking down at soil profile (DP 2).

PP 25 (east); Looking at vegetation of upland data point (DP 2).

PP 26 (west); Looking towards Cicero Creek (DP 2).

DP 1; Looking down at the upland soil profile (DP 1).

PP 27 (southeast); Looking at vegetation of upland data point (DP 1).

PP 28 (southwest); Looking at vegetation of upland data point (DP 1).

PP 29 (east); Looking at vegetation of upland data point (DP 1).

DP 5; Looking down at the soil profile (DP 5).

PP 30 (east); Looking at the man-made stormwater treatment basin (DP 5).

PP 31 (south); Looking at the man-made stormwater treat basin (DP 5).

DP 4; Looking down at soil profile of upland soils (DP 4).

PP 32 (east); Looking outside of Wetland A at upland vegetation (DP 4).

PP 33 (north); Looking outside of Wetland A at upland vegetation (DP 2).

DP 3; Looking down at soil profile (DP 3).

PP 34 (east); Looking at Wetland A. (DP 3)

PP 35 (south); Looking at Wetland A (DP 3).

PP 36 (south); Looking at culvert north of Wetland A. No evidence of an ordinary high water mark was present.

PP 37 (west); Looking at vegetation adjacent to the culvert.

PP 38 (east); Looking at mowed vegetation adjacent to the culvert.

PP 39 (east); Looking vegetation upstream of the culvert.

PP 40 (west); Looking at mowed vegetation.

PP 41 (northeast); Looking at mowed vegetation.

PP 42 (east); Looking along 5th Street.

PP 43 (west); Looking along 5th Street.

PP 44 (north); Looking at dump yard vegetation.

PP 45 (east); Looking at dump yard vegetation.

PP 46 (south); Looking at dump yard vegetation.

PP 47 (west); Looking at dump yard vegetation.

PP 48 (east); Looking at vegetation adjacent to the abandoned railroad.

PP 49 (west); Looking at vegetation adjacent to the abandoned railroad.

PP 50 (west); Looking at upland vegetation.

PP 51 (east); Looking at upland vegetation.

PP 52 (northeast); Looking at Wetland A, near old subsurface tile that leads to Cicero Creek.

PP 53 (northeast); Looking at the surface inlet that drains to Wetland A.

PP 54 (northeast); Looking at surface overflow inlet that connects Wetland A to Cicero Creek.

DP 6; Looking down at Wetland B soil profile (DP 6).

PP 55 (northeast); Looking at Wetland B at the standing water and hydrophytic vegetation (DP 6).

DP 7; Looking down at upland soil profile (DP 7).

PP 56 (northeast); Looking at upland vegetation adjacent to Wetland B. (DP 7)

PP 57 (west); Looking at upland vegetation adjacent to Wetland B (DP 7).

Appendix D: Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pleasant Street Reconstruction City/County: Noblesville Sampling Date: 10-Jun-20

Applicant/Owner: City of Noblesville State: Indiana Sampling Point: **DP-1**

Investigator(s): S.Elmore and K.Etzkorn Section, Township, Range: S 1 T 18 N R 4 E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave

Slope: 0.0% ° Lat.: 40.0409385 Long.: -86.024058 Datum: NAD 83

Soil Map Unit Name: Gessie silt loam (Ge) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present? Yes ○ No ◉	
Wetland Hydrology Present? Yes ◉ No ○	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30 ft)				
1. Acer negundo	35	☑	38.9%	FAC
2. Celtis occidentalis	30	☑	33.3%	FAC
3. Acer saccharinum	25	☑	27.8%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	0
	90	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)				
1. Celtis occidentalis	20	☑	80.0%	FAC
2. Cornus racemosa	5	☑	20.0%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	25	= Total Cover		
Herb Stratum (Plot size: 5 ft)				
1. Laportea canadensis	50	☑	50.0%	FACW
2. Viola sororia	18	☑	18.0%	FAC
3. Alliaria petiolata	10	☐	10.0%	FAC
4. Cryptotaenia canadensis	10	☐	10.0%	FAC
5. Elymus canadensis	5	☐	5.0%	FACU
6. Symphyotrichum lateriflorum	5	☐	5.0%	FACW
7. Carex davisii	2	☐	2.0%	FAC
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		
Woody Vine Stratu (Plot size: 30 ft)				
1. Toxicodendron radicans	5	☑	71.4%	FAC
2. Smilax hispida	2	☑	28.6%	FAC
	7	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	137	x 3 =	411
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	222 (A)		591 (B)

Prevalence Index = B/A = 2.662

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **DP-1**

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	100					Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): 0

Water Table Present? Yes ○ No ◉ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pleasant Street Reconstruction City/County: Noblesville Sampling Date: 10-Jun-20

Applicant/Owner: City of Noblesville State: Indiana Sampling Point: **DP-2**

Investigator(s): S.Elmore, K.Etzkorn Section, Township, Range: S 2 T 18 N R 4 E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave

Slope: ° Lat.: 40.04067497 Long.: -86.0357618 Datum: NAD 83

Soil Map Unit Name: Gessie silt loam (Ge) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

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

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

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30 ft)				
1. Acer negundo	35	☑	41.2%	FAC
2. Ulmus americana	30	☑	35.3%	FACW
3. Populus deltoides	20	☑	23.5%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	0
	85	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)				
1. Sambucus nigra ssp. canadensis	10	☑	66.7%	FACW
2. Cornus racemosa	5	☑	33.3%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	15	= Total Cover		
Herb Stratum (Plot size: 5 ft)				
1. Rudbeckia laciniata	50	☑	50.0%	FACW
2. Cryptotaenia canadensis	15	☑	15.0%	FAC
3. Laportea canadensis	15	☑	15.0%	FACW
4. Viola sororia	10	☐	10.0%	FAC
5. Equisetum hyemale	5	☐	5.0%	FACW
6. Carex davisii	5	☐	5.0%	FAC
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	100	= Total Cover		
Woody Vine Stratu (Plot size: 30 ft)				
1. Toxicodendron radicans	5	☑	100.0%	FAC
2.	0	☐	0.0%	
	5	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 9 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	110	x 2 =	220
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	205 (A)		505 (B)

Prevalence Index = B/A = 2.463

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-2

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR	4/2	100					Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): 0

Water Table Present? Yes ○ No ◉ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers — Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pleasant Street Reconstruction City/County: Noblesville Sampling Date: 10-Jun-20

Applicant/Owner: City of Noblesville State: Indiana Sampling Point: **DP-3**

Investigator(s): S.Elmore, K.Etzkorn Section, Township, Range: S 2 T 18 N R 4 E

Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): concave

Slope: ° Lat.: 40.04263703 Long.: -86.03985116 Datum: NAD 83

Soil Map Unit Name: Patton silty clay loam (Pn) NWI classification: PAB4Fh

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present? Yes ◉ No ○	
Wetland Hydrology Present? Yes ◉ No ○	

Remarks:
Wetland A - forested, emergent, and open water

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30 ft)				
1. Fraxinus pennsylvanica	55	☑	61.1%	FACW
2. Populus deltoides	35	☑	38.9%	FAC
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	90	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)				
1. Fraxinus pennsylvanica	10	☑	100.0%	FACW
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	10	= Total Cover		
Herb Stratum (Plot size: 5 ft)				
1. Glyceria striata	40	☑	50.0%	OBL
2. Phalaris arundinacea	40	☑	50.0%	FACW
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	80	= Total Cover		
Woody Vine Stratu (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	105	x 2 =	210
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		355 (B)

Prevalence Index = B/A = 1.972

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **DP-3**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	4/3	100						Sandy Loam	fresh sediment deposit from adjacent farm fields
3-9	10YR	4/1	85	10YR	3/6	15	C	PL	Silt Loam	
9-20	10YR	2/1	100						Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): 0

Water Table Present? Yes ○ No ◉ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pleasant Street Reconstruction City/County: Noblesville Sampling Date: 10-Jun-20

Applicant/Owner: City of Noblesville State: Indiana Sampling Point: **DP-4**

Investigator(s): S.Elmore, K.Etzkorn Section, Township, Range: S 2 T 18 N R 4 E

Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): undulating

Slope: ° Lat.: 40.04275078 Long.: -86.03977975 Datum: NAD 83

Soil Map Unit Name: Patton silty clay loam (Pn) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

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

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

Hydrophytic Vegetation Present? Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present? Yes ○ No ◉	
Wetland Hydrology Present? Yes ○ No ◉	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30 ft)				
1. Morus rubra	80	☑	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	80	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft)				
1. Fraxinus pennsylvanica	20	☑	44.4%	FACW
2. Lonicera japonica	20	☑	44.4%	FACU
3. Cornus racemosa	5	☐	11.1%	FAC
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	45	= Total Cover		
Herb Stratum (Plot size: 5 ft)				
1. Alliaria petiolata	40	☑	44.4%	FAC
2. Sanicula canadensis	40	☑	44.4%	FACU
3. Galium aparine	10	☐	11.1%	FACU
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	90	= Total Cover		
Woody Vine Stratu (Plot size: 30 ft)				
1. Vitis riparia	3	☑	100.0%	FACW
2.	0	☐	0.0%	
	3	= Total Cover		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	23	x 2 =	46
FAC species	45	x 3 =	135
FACU species	150	x 4 =	600
UPL species	0	x 5 =	0
Column Totals:	218	(A)	781 (B)

Prevalence Index = B/A = 3.583

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	100					Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): 0

Water Table Present? Yes ○ No ◉ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): 0

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers — Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pleasant Street Reconstruction City/County: Noblesville Sampling Date: 10-Jun-20

Applicant/Owner: City of Noblesville State: Indiana Sampling Point: **DP-5**

Investigator(s): S.Elmore, K.Etzkorn Section, Township, Range: S 6 T 18 N R 5 E

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): concave

Slope: ° Lat.: 40.038877 Long.: -86.00624 Datum: NAD 83

Soil Map Unit Name: Houghton Muck (Ho) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☑ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

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

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

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ◉ No ○	

Remarks:
it appears to be a constructed wetland, based on the type of vegetation present, uniform cut slopes, location, and layer of sand/gravel under a thin layer of topsoil. Historic photos (2016) show construction at same time as adjacent U-Store Facility.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	0
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5 ft)				
1. Eleocharis obtusa	30	☑	31.6%	OBL
2. Carex vulpinoidea	25	☑	26.3%	FACW
3. Juncus tenuis	20	☑	21.1%	FAC
4. Carex frankii	15	☐	15.8%	OBL
5. Scirpus pendulus	5	☐	5.3%	OBL
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	95	= Total Cover		
Woody Vine Stratu (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	25	x 2 =	50
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		160 (B)

Prevalence Index = B/A = 1.684

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-5

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	3/2	100					Silt Loam	
3-9	10YR	4/3	100					Sand	gravel

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: packed gravel

Depth (inches): 4 in

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☑ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): 0

Water Table Present? Yes ○ No ◉ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pleasant Street Reconstruction City/County: Noblesville Sampling Date: 14-Aug-20

Applicant/Owner: City of Noblesville State: IN Sampling Point: **DP-6**

Investigator(s): K.Etzkorn, M.Baughman Section, Township, Range: S 1 T 18N R 4E

Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): concave

Slope: / ° Lat.: 40.041055 Long.: -86.023196 Datum: NAD 83

Soil Map Unit Name: Genesee silt loam (Ge) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

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

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

Hydrophytic Vegetation Present? Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present? Yes ◉ No ○	
Wetland Hydrology Present? Yes ◉ No ○	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Mimulus ringens	5	☐ 7.7%	OBL
2. Leersia oryzoides	50	☑ 76.9%	OBL
3. Carex vulpinoidea	10	☐ 15.4%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	65	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	65 (A)		75 (B)

Prevalence Index = B/A = 1.154

Hydrophytic Vegetation Indicators:

- ☑ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ◉ No ○

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: **DP-6**

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	3/1	50	7.5YR	5/6	5	C	M	Silty Clay Loam	2nd matrix 10yr 3/2 45%
6-18	10YR	3/2	50	7.5YR	5/6	5	C	M	Sandy Clay Loam	2nd matrix 10yr 3/2 45% gravel

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ◉ No ○ Depth (inches): 1

Water Table Present? Yes ◉ No ○ Depth (inches): 3

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

US Army Corps of Engineers — Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Pleasant Street Reconstruction City/County: Noblesville Sampling Date: 14-Aug-20

Applicant/Owner: City of Noblesville State: IN Sampling Point: **DP-7**

Investigator(s): K.Etzkorn, M.Baughman Section, Township, Range: S 1 T 18N R 4E

Landform (hillslope, terrace, etc.): Valley bottom Local relief (concave, convex, none): concave

Slope: / ° Lat.: 40.041105 Long.: -86.023251 Datum: NAD 83

Soil Map Unit Name: Genesee silt loam (Ge) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

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

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

Hydrophytic Vegetation Present? Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present? Yes ○ No ◉	
Wetland Hydrology Present? Yes ○ No ◉	

Remarks:

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft)			
1. Trifolium pratense	20	☑ 20.0%	FACU
2. Trifolium repens	20	☑ 20.0%	FACU
3. Plantago major	20	☑ 20.0%	FAC
4. Taraxacum officinale	10	☐ 10.0%	FACU
5. Festuca arundinacea	30	☑ 30.0%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A = 3.800

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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

Hydrophytic Vegetation Present? Yes ○ No ◉

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

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-7

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

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR	4/2	100					Silty Clay Loam	
6-18	10YR	4/2	100					Silty Clay Loam	gravel

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): 0

Water Table Present? Yes ○ No ◉ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): 0

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

US Army Corps of Engineers — Midwest Region - Version 2.0

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT
INDIANAPOLIS REGULATORY OFFICE
8902 OTIS AVENUE, SUITE S106B
INDIANAPOLIS, IN 46216

February 9, 2022

Regulatory Division
North Branch
ID No. LRL-2020-699-sjk

Ms. Alison Krupski
City of Noblesville
16 South 10th Street, Suite 155
Noblesville, Indiana 46060

Dear Ms. Krupski:

This is regarding correspondence dated January 24, 2022, from American Structurepoint concerning the status of the Approved Jurisdictional Determination previously issued under the Navigable Waters Protection Rule and request for a new determination under the current regulatory regime for a portion of the waters located at the proposed Noblesville East-West Corridor project in Hamilton County, Indiana. A location map is enclosed. We have reviewed the submitted data relative to Section 404 of the Clean Water Act.

The U.S. Army Corps of Engineers exercises regulatory authority under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344) for certain activities in "waters of the United States (U.S.)." These waters include all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce.

The reported isolated Pond 1 and Stormwater Basin do not appear to be used or be susceptible to use in interstate or foreign commerce. Additionally, the reported UNT 1 and UNT 2 are stormwater conveyance ditches constructed in dry land. As such, the aforementioned waters are not considered to be "waters of the U.S." and are not regulated under Section 404 of the Clean Water Act. However, this determination does not relieve you of the responsibility to comply with applicable State law. We urge you to contact the Indiana Department of Environmental Management (IDEM), Office of Water Quality at wetlandsprogram@idem.in.gov to determine the applicability of State law to the isolated waters mentioned above.

This letter contains an approved jurisdictional determination (JD) for your site. If you object to this JD, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this JD you must submit a completed RFA form to the Lakes and Rivers Division Office at the following address:

US Army Corps of Engineers
Attn: Appeal Review Officer, CELRD-PD-REG
550 Main Street, Room 10718
Cincinnati, OH 45202-3222

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by **April 11, 2022.**

This jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision of the determination before the expiration date. It is not necessary to submit an RFA form to the Division office if you do not object to the JD in this letter.

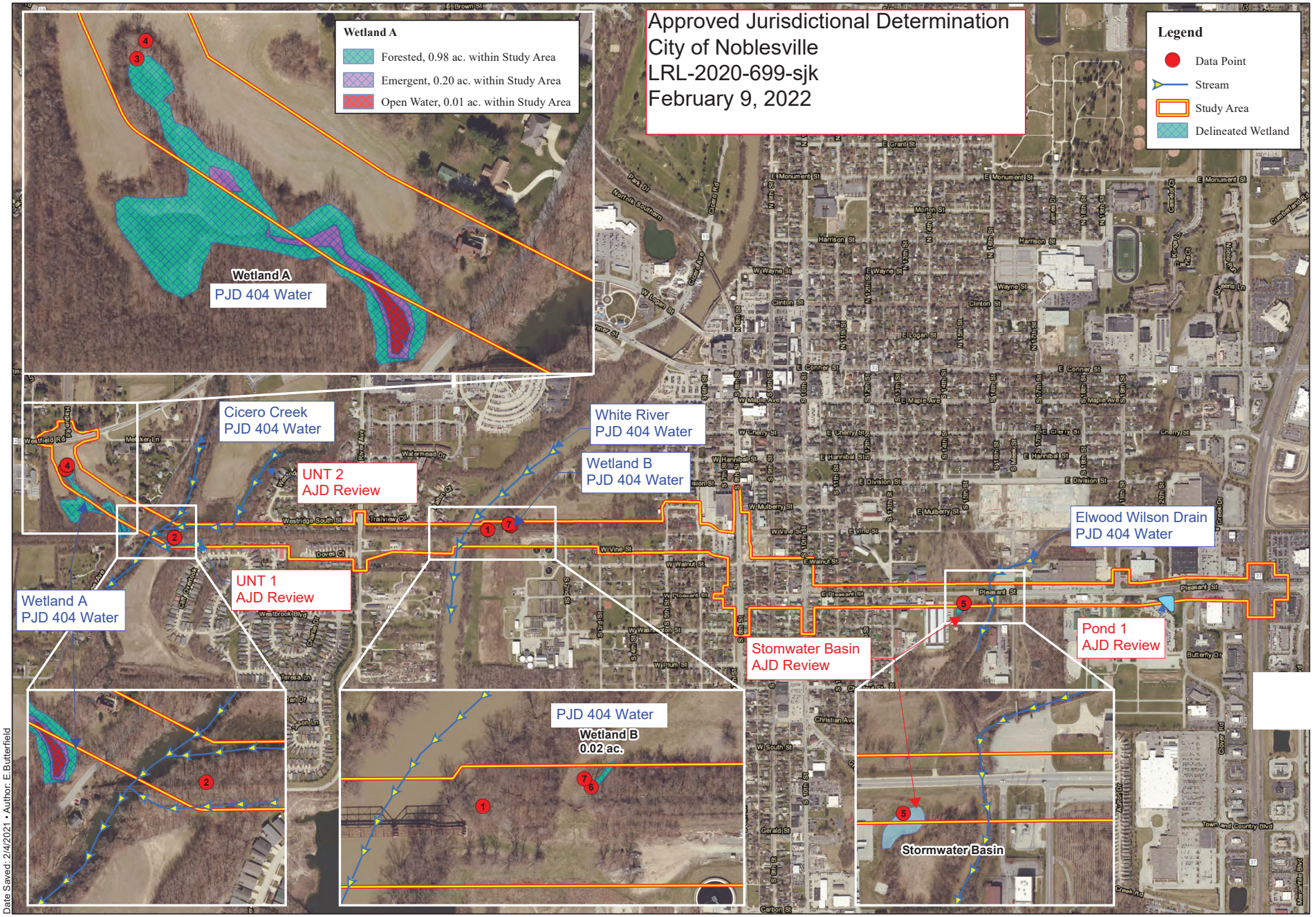
The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center prior to starting work.

If we can be of any further assistance, please contact me by calling 317-543-9424 or emailing Sarah.J.Keller@usace.army.mil. Any correspondence on this matter should reference our Identification Number LRL-2020-699-sjk.

Sincerely,

Sarah Keller
Regulatory Specialist
Indianapolis Regulatory Office

Enclosures
Copy Furnished: IDEM (Turner)
American Structurepoint (Iddings)



Wetland Delineation Map

East-West Corridor Project
Noblesville, Hamilton County, Indiana

DES No
TBD

CHA Proje
059473

Scale 1" = 900'

Image Courtesy of the IndianaMap
Photo Date: 2017

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: City of Noblesville	File Number: LRL-2020-699	Date: 2/9/2022
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: Sarah Keller U.S. Army Corps of Engineers Indianapolis Regulatory Office 8902 Otis Avenue, Suite S106B Indianapolis, IN 46216 (317) 543-9424	If you only have questions regarding the appeal process you may also contact: U.S. Army Engineer Division, ATTN: Regulatory Appeal Review Officer, CELRD-PD-REG 550 Main Street - Room 10718 Cincinnati, Ohio 45202-3222 TEL (513) 684-2460 FAX (513) 684-2460

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 2/9/2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: LRL-2020-699-sjk

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:IN County/parish/borough: Hamilton City: Noblesville
Center coordinates of site (lat/long in degree decimal format): Lat. 40.0412° **N**, Long. -86.0175° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: West Fork White River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A
Name of watershed or Hydrologic Unit Code (HUC): 05120201
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: 1/24/2022
☒ Field Determination. Date(s): 1/27/2021

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **UNT 1 (290 ft) and UNT 2 (784 ft) were constructed in dry land for the purpose of stormwater conveyance. Pond 1 (0.43 ac) and the Storwater Basin (0.19 ac) were constructed in dry land for the purpose of stormwater detention**.

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: **Pick List**
Drainage area: **Pick List**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: .
Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☒ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☒ Other: (explain, if not covered above): **UNT 1, UNT 2, Pond 1, and the Stormwater Basin were constructed in dry land to convey and/or retain stormwater.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☒ Non-wetland waters (i.e., rivers, streams): **1,074** linear feet width (ft).
☒ Lakes/ponds: 0.62 acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Wetland Delineation Report dated Wetland Delineation and Waters of the U.S. Report, East-West Corridor Project, by CHA Consulting, dated November 13, 2020, revised February 22, 2021..
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☒ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:7.5' Noblesville, IN (delineation).
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:Web Soil Survey, Hamilton County (delineation).
☒ National wetlands inventory map(s). Cite name:map in delineation report.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:IDNR Floodzone map (delineation).
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): 2017, 2001, 1974 (delineation report); 1941, 1976, 1985, 1994, 1998, 2001, 2005 (Hamilton County GIS) .
or ☒ Other (Name & Date):delineation report (6/10/2020, 8/14/2020, 10/27/2020); USACE 1/27/2021.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify):APT (6/10/2020, 10/27/2020, 8/14/2020, 1/27/2021); Administrative record for LRL-2014-559..

B. ADDITIONAL COMMENTS TO SUPPORT JD: UNT 1 is a man-made stormwater ditch constructed in dry land between 1998 and 2001 when the adjacent subdivision was cosntructed and stormwater runoff was conveyed trhough the ditch to Cicero Creek. UNT 2 is a large ditch/stormwater feature constructed in dry, agricultural land between 1976 and 1985 (though aerials suggest closer to 1985 due to observed soil disturbance). It appears to have been constructed in the same period of time as adjacent commercial development in the surrounding uplands and was likely intended as stormwater conveyance. Pond 1 is a man-made detention pond constructed in dry land between 1994 and 1997 at the Hamilton County Fairgrounds. The reported Stormwater Basin was constructed in dry land between 2015-2016 for the associated commercial self-storage development. The development construction was reviewed under LRL-2014-559, and it was determined that no permit was required for the development and basin construction .