

Letter of Notification for the Fostoria – East Lima 138 kV Transmission Line Rebuild Project

(East Lima – North
Woodcock and New
Liberty – West End
Fostoria)



An **AEP** Company

BOUNDLESS ENERGY™

PUCO Case No. 24-0076-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code
Section 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

February 2, 2024

**LETTER OF NOTIFICATION FOR FOSTORIA – EAST LIMA 138 kV TRANSMISSION LINE REBUILD PROJECT
(EAST LIMA – NORTH WOODCOCK AND NEW LIBERTY – WEST END FOSTORIA)**

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.

**Fostoria-East Lima 138 kV Transmission Line Rebuild Project
(East Lima – North Woodcock and New Liberty – West End Fostoria)**

4906-6-05 Accelerated Application Requirements

AEP Ohio Transmission Company, Inc. (“AEP Ohio Transco” or the “Company”) provides the following information to the Ohio Power Siting Board (“OPSB”) in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Letter of Notification.

The Company proposes the Fostoria – East Lima 138 kV Transmission Line Rebuild Project (East Lima-North Woodcock and New Liberty-West End Fostoria) (the “Project”), located in Washington, Cass, Allen, and Liberty townships in Hancock County and Richland, Monroe, and Bath townships in Allen County. The approximately 41.3-mile 138 kV transmission line rebuild begins at the existing East Lima Station traveling northeast through North Woodcock Station, New Liberty Station, North Findlay Station, Ebersole Station and ending at the West End Fostoria Station. The Company proposes to rebuild several 138 kV transmission lines which will cumulatively be renamed to the Fostoria-East Lima 138 kV Transmission Line and include the following:

- 11.7 miles of the existing double-circuit transmission line between East Lima Station and North Woodcock Station (the “East Lima – North Woodcock”);
- 6.6 miles of the existing double-circuit transmission line between New Liberty Station and Ebersole Station (the “New Liberty – Ebersole”);
- 6.9 miles of the existing double-circuit transmission line between Ebersole Station and Fostoria Central Station (the “Ebersole – Fostoria Central”);
- 1.6 miles of the existing single-circuit transmission line between Fostoria Central Station and West End Fostoria Station (the “Fostoria Central Extension”); and
- 14.5 miles of the existing double-circuit North Woodcock-New Liberty 135 kV Transmission Line (this rebuild section will be filed under a separate application in Case No. 24-0077-EL-BLN, by Ohio Power Company).

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The Project will be rebuilt within the existing right-of-way (ROW) by replacing steel lattice tower structures with steel monopole structures and requires only supplemental easements. Maps 1 and 2 show the location of the Project.

The Project meets the requirements for a Letter of Notification (“LON”) as defined by Items 2(b) of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled constructors, adding structures to an existing transmission line, or replacing structures with a different type of structure, for a distance of:

(b) More than two miles.

The Project has been assigned Case No. 24-0076-EL-BLN.

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B(2) Statement of Need

If the proposed Letter of Notification project is an electric power transmission line or gas or natural gas transmission line, a statement explaining the need for the proposed facility.

The Fostoria – East Lima 138kV Transmission Line is 41.3 miles long and consists primarily of double circuit steel lattice towers, originally installed in 1924. The double circuit line connects the Company's 138 kV systems between Lima, Findlay, and Fostoria areas of Ohio. In total there are 8 stations to which the line connects to. The stations associated with this Project either provide service to industrial and distribution customers in the area or provide primary sources into the area's sub-transmission systems.

There are numerous asset renewal concerns on the transmission line. The majority of the 1924 structures are steel lattice towers. Pre-1930's era lattice structure design does not account for ice/wind loadings and utilize inadequate lightning protection. In addition, the following issues have been observed on similar construction/vintage lines across the AEP footprint: conductor steel core strength has diminished, significant wear/corrosion of hardware and insulators, loss of galvanizing and corresponding strength of steel lattice members and weakened foundations and tower legs. The Fostoria – East Lima 138 kV Transmission Line has displayed similar signs of degradation.

The overall deterioration of the line is an indicator of the need to rebuild the asset rather than repair the 100-year-old facility. There are 44 structures with at least one open condition, which affects approximately 22% of the structures along the existing line. Some of the open conditions identified consisted of broken conductor strands, burned insulators, broken/damaged lattice members and hardware. An assessment conducted by ground crews for a portion of the structures along the existing line confirmed these open conditions. In addition to the open conditions identified as part of conventional inspection cycles, concerns with ovalization, wear, and corrosion of connection points were identified through targeted UAV inspections of the line.

Since 2015, customers have experienced 8 total outages across the circuits on this line. The permanent outages on the line between the Ebersole Station and New Liberty Station have caused 19,640 minutes of interruption for 326 distribution customers at Flag City Substation affecting 10.2 MVA of load. Failure to move forward with this Project will continue to expose customers served from the line to outages as the asset continues to deteriorate.

The need and solutions for rebuilding the entire asset were submitted to PJM as a single Fostoria – East Lima 138 kV Transmission Line Rebuild Project on 05/21/2021 and 07/09/2021 respectively, and subsequently assigned a PJM identifier of s2812 (see **Appendix B**). The Project solution had not been formally vetted by PJM at the time of the Company's 2023 LTFR, but the Project will be included in the Company's 2024 LTFR.

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B(3) Project Location

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.

The location of the Project in relation to existing transmission lines and substations is shown on Map 1, in **Appendix A**. Map 2, in **Appendix A**, identifies the Project components on a 2021 aerial photograph.

B(4) Alternatives Considered

The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

The entire existing 138 kV transmission line will be rebuilt on centerline and within existing ROW. The goal of selecting a suitable route for the Project was to minimize impacts on land use and natural and cultural resources while avoiding circuitous routes, significantly higher costs, and non-standard design requirements. Based on desktop and field examinations, the Company identified rebuilding the entire 26.7-mile-long 138 kV transmission line in-place as the best and most reasonable route.

The Project route is direct and impacts no new parcels or landowners; therefore, the Project reduces new viewshed impacts and would not limit future development in the area. Additionally, the design provides for proper clearances within the existing ROW and existing ROW easements permit rebuilding and upgrading the existing line. Thus, major route alternatives were not considered for rebuilding the existing transmission line. Additionally, the ecological and cultural field surveys conducted within the existing easements determined that no hydrological or cultural features would be permanently impacted by the Project.

B(5) Public Information Program

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

The Company will inform affected property owners and tenants about this Project through several different mediums. Within seven days of filing this LON, the Company will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements of OAC Section 4906-6-08(A)(1-6). Further, the Company will mail a letter, via first class mail, to affected landowners, tenants, contiguous owners and any other landowner the Company may approach for an easement necessary for the construction, operation, or maintenance of the Project. The letter will comply with all requirements of OAC Section 4906-6-08(B). The Company maintains a website (<http://aeptransmission.com/ohio/>) which hosts an electronic copy of this LON and the public notice of this LON. An electronic and paper copy of the LON will be served to the public library in each

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political subdivision affected by this Project. In addition, the Company retains ROW land agents that discuss Project timelines, construction and restoration activities and convey this information to affected owners and tenants.

B(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

Construction of the Project is planned to begin in May 2024 with an anticipated in-service date of December 2026.

B(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Map 1, in **Appendix A**, identifies the location of the Project area on a United States Geological Survey 1:24,000 quadrangle map. **Appendix A**, Map 2 shows the Project area on a 2021 aerial photograph.

To visit the Project from downtown Columbus, Ohio, take I-70 W towards Dayton. Then, use the right three lanes to take exit 93, onto I-270 N towards Cleveland. Continue north on I-270 for 9 miles, then take exit 17B to merge onto OH161W/US-33 W towards Marysville. Follow US-33W for approximately 59 miles. Continue to follow US-33 W by turning left onto US-33 W/Market Street and drive for approximately 9 miles. Then, turn right onto State Route 65 N and continue for approximately 10 miles until you see the on ramp to I-75 N towards Toledo. Merge onto I-75 N towards E Bluelick Road in Bath Township. After approximately 7 miles, take exit 130 for Bluelick Road. At the end of the exit ramp, turn left onto Bluelick Road and continue for 0.3 mile. Take the first right turn onto Wolfe Road. Continue on Wolfe Road for 1.3 miles to arrive at East Lima Station. The address for East Lima Station is 4284 Wolfe Road, Lima, Ohio 45807 at latitude 40.800626, longitude -84.030737.

B(8) Property Agreements

The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.

The Project will be constructed within existing ROW and will not impact any new parcels or landowners. **Appendix C** provides a table of property parcel numbers with an indication as to the

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easement type and whether the easement has been obtained in order to construct and operate the facility.

B(9) Technical Features

The applicant shall describe the following information regarding the technical features of the project:

B(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The rebuilt Fostoria – East Lima 138 kV Transmission Line, specifically between East Lima Station and North Woodcock Station, is estimated to include the following:

Voltage: 138 kV
Conductors: 795 kcmil 26/7 ACSR “Drake”
Static Wire: 7#8 Alumoweld
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Forty-nine (49) monopole double circuit (DC) suspension
Four (4) monopole DC deadend
Four (4) two pole DC deadend
Four (4) monopole single circuit (SC) deadend
Two (2) monopole SC suspension
Three (3) three pole SC deadend

The rebuilt Fostoria – East Lima 138 kV Transmission Line, specifically between New Liberty Station and Ebersole Station, is estimated to include the following:

Voltage: 138 kV
Conductors: 795 kcmil 26/7 ACSR “Drake”
Static Wire: 7#8 Alumoweld, 96 OPGW
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Twenty-seven (27) DC suspension
Four (4) monopole DC deadend
Two (2) two pole DC deadend
Six (6) monopole SC deadend

The rebuilt Fostoria – East Lima 138 kV Transmission Line, specifically between Ebersole Station and Fostoria Central Station, is estimated to include the following:

Voltage: 138 kV
Conductors: 795 kcmil 26/7 ACSR “Drake”
Static Wire: 7#8 Alumoweld, 96 OPGW

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Insulators: Polymer
ROW Width: 100 feet
Structure Types: Twenty-nine (29) monopole DC suspension
Four (4) monopole DC deadend
Three (3) two pole DC deadend

The rebuilt Fostoria – East Lima 138 kV Transmission Line, specifically between Fostoria Central Station and West End Fostoria Station, is estimated to include the following:

Voltage: 138 kV
Conductors: 795 kcmil 26/7 ACSR “Drake”
Static Wire: 96 OPGW
Insulators: Polymer
ROW Width: 100 feet
Structure Types: Two (2) monopole SC deadend
Eight (8) monopole SC suspension

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

B(9)(b)(i) Calculated Electric and Magnetic Field Strength Levels

i) Calculated Electric and Magnetic Field Levels

Three loading conditions were examined: (1) Normal Maximum Loading, (2) Emergency Loading, and (3) Winter Normal Conductor Rating, consistent with the OPSB requirements. Normal Maximum Loading represents the peak flow expected with all system facilities in service; daily/hourly flows fluctuate below this level. Emergency loading is the maximum current flow during unusual (contingency) conditions, which exist only for short periods of time. Winter normal (“WN”) conductor rating represents the maximum current flow that a line, including its terminal equipment, can carry during winter conditions. It is not anticipated that this circuit of this line would operate at its WN rating in the foreseeable future.

Electric and Magnetic Field (“EMF”) levels were computed one meter above ground under the line and at the ROW edges (50/50 feet, left/right, of centerline).

Our results, calculated using EPRI's EMF Workstation 2015 software, are summarized below.

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East Lima - North Woodcock					
Condition	Load (A)	Phasing Arrangements	Ground Clearance (feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading[^]	167/167	C/A B/B A/C	33	0.52/1.73/0.64	14.28/32.08/8.29
(2) Emergency Line Loading^{^^}	284/268	C/A B/B A/C	28	0.52/1.73/0.64	24.14/53.41/14.13
(3) Winter Conductor Rating^{^^^}	284/268	C/A B/B A/C	33	0.52/1.08/0.27	11.81/18.12/8.16

New Liberty - Ebersole					
Condition	Load (A)	Phasing Arrangements	Ground Clearance (feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading[^]	201/188	C/A B/B A/C	32	0.30/1.49/0.45	7.66/30.76/7.98
(2) Emergency Line Loading^{^^}	255/264	C/A B/B A/C	26	0.30/1.49/0.45	9.33/40.41/10.96
(3) Winter Conductor Rating^{^^^}	184/213	C/A B/B A/C	32	0.25/0.93/0.40	5.62/19.64/7.85

Ebersole – Fostoria Central					
Condition	Load (A)	Phasing Arrangements	Ground Clearance (feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading[^]	301/310	C/A B/B A/C	31	0.63/1.30/0.72	16.67/39.30/17.54
(2) Emergency Line Loading^{^^}	615/619	C/A B/B A/C	29	0.63/1.30/0.72	33.94/79.38/35.24
(3) Winter Conductor Rating^{^^^}	284/293	C/A B/B A/C	31	0.64/1.21/0.70	15.54/32.37/16.38

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Fostoria Central Extension					
Condition	Load (A)	Phasing Arrangements	Ground Clearance (feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading[^]	113	A B C	32	1.41/1.76/0.78	11.82/21.68/21.68
(2) Emergency Line Loading^{^^}	184	A B C	25	1.41/1.76/0.78	19.24/43.62/43.62
(3) Winter Conductor Rating^{^^^}	109	A B C	32	1.34/1.49/0.72	10.81/18.76/18.76

*EMF levels (left ROW edge/maximum/right ROW edge) computed one meter above ground at the point of minimum ground clearance, assuming balanced phase currents and 1.0 P.U. Voltages. ROW width is 50 feet (left) and 50 feet (right) of centerline, respectively.

[^]Peak line flow expected with all system facilities in service.

^{^^}Maximum flow during a critical system contingency

^{^^^}Maximum continuous flow that the line, including its terminal equipment, can withstand during winter conditions.

For power-frequency EMF, IEEE Standard C95.6TM-2002 recommends the following limits:

	General	Controlled
	Public	Environment
	-----	-----
Electric Field Limit (kV/m)	5.0	20.0
Magnetic Field Limit (mG)	9040	27,100

The above EMF levels are well within the limits specified in IEEE Standard C95.6TM-2002. Those limits have been established to "prevent harmful effects in human beings exposed to electromagnetic fields in the frequency range of 0-3 kHz."

B(9)(b)(ii) Design Alternatives

A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

Design alternatives were not considered due to EMF strength levels. Transmission lines, when energized, generate EMF. Laboratory studies have failed to establish a strong correlation between exposure to EMF and effects on human health. However, some people are concerned that EMF have impacts on human health. Due to these concerns, EMF associated with the new circuits was calculated and set forth in the table above. The EMF was computed in a manner to maximize the estimate,

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assuming the highest reasonable input values based on conditions along the proposed transmission line rebuild. Normal daily EMF levels would be less than these, which were calculated at maximum load conditions. Based on studies from the National Institutes of Health, the magnetic field (measured in milliGauss, or mG) associated with emergency loading at the highest EMF value for this transmission line is lower than those associated with normal household appliances like microwave ovens, electric shavers, and hair dryers. For additional information regarding EMF, the National Institutes of Health has posted information on their website:

<http://www.niehs.nih.gov/health/topics/agents/emf/>.

B(9)(b)(ii)(c) Project Cost

The estimated capital cost of the project.

The cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$69,475,000 using a Class 4 estimate. Pursuant to the PJM OATT, the costs for this Project will be recovered in the Company's FERC formula rate (Attachment H-20 to the PJM OATT) and allocated to the AEP Zone.

B(10) Social and Ecological Impacts

The applicant shall describe the social and ecological impacts of the project:

B(10)(a) Operating Characteristics

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The portion of the Project between East Lima Station and North Woodcock Station is located in Bath, Monroe and Richland townships of Allen County and goes through the village of Bluffton; the portion of the Project between New Liberty Station and Ebersole Station is located in Liberty, Allen, and Cass Townships of Hancock County and goes through the city of Findlay Ohio; the portion of the Project between Ebersole Station and Fostoria Central Station is located in Cass and Washington Townships in Hancock County; and the portion of the Project between Fostoria Central Station and West End Fostoria Station is located in Washington Township in Hancock County.

Existing land uses surrounding the Project predominantly consist of cropland or pasture/hayfield with residential properties and forested lands scattered throughout. The Project passes through two areas of dense residential development when it goes through the Village of Bluffton and the City of Findlay. Commercial and industrial buildings are less common, with only a few located north of North Findlay Station. No protected areas are located within 1,000 feet of the Project. Rebuilding the existing transmission line within existing ROW minimizes effects on existing land use.

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B(10)(b) Agricultural Land Information

Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

The Project occupies approximately 325 acres; of that, approximately 263 acres have been historically used as agricultural land, including cropland or pasture/hay field.

Auditor offices of Allen County and Hancock County were contacted on September 1, 2023, requesting agricultural district land information crossed by the Project. Based on email correspondence with the Allen County Auditor's Office on January 30, 2024, 16 properties registered as agricultural district land are crossed by the Project. Based on email correspondence with the Hancock County Auditor's Office on January 29, 2024, 12 properties registered as agricultural district land are crossed by the Project. Overall, the Project crosses a combined 72 acres of agricultural district land in Allen and Hancock counties.

The Fostoria – East Lima 138 kV Transmission Line was installed in 1924 and has since co-existed with agricultural land uses; therefore, the proposed rebuild is not anticipated to change the existing agricultural landscape. Additionally, the existing steel lattice towers will be replaced with steel monopoles, which require smaller foundations.

B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The Company's consultant completed Phase I Archaeological and History/Architectural surveys, which involved subsurface testing and visual inspection and was coordinated with the State Historic Preservation Office ("SHPO") between July and December 2022. The Company's consultant recommended that the Project would have no adverse effect on historic properties and no further cultural resource work would be necessary. In the responses received on August 1 and 8, 2022 and January 1, 2023, SHPO supported the consultant's recommendations and indicated that no additional archaeological survey is recommended. A copy of the concurrence letters from SHPO are provided in **Appendix D**.

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B(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

A Notice of Intent (“NOI”) will be filed with the Ohio Environmental Protection Agency (“OEPA”) for authorization of construction storm water discharges under General Permit OHC000006 and local stormwater permits will be obtained from Allen and Hancock counties. The Company will implement and maintain best management practices as outlined in the Project-specific SWPPP to minimize erosion sediment to Project surface waters during storm events. Section 401/404 permits from the U.S. Army Corps of Engineers (“USACE”) and/or OEPA are not currently anticipated for the Project.

The Project proposes to rebuild an existing line and will generally involve pole-for-pole structure replacements near existing structure locations. No existing or proposed structures are located within the Federal Emergency Management Agency’s (“FEMA”) designated 100-year floodplain or regulatory floodway areas. Floodplain permitting may be required for the Project if a substantial change in Base Flood Elevation (“BFE”) is anticipated from Project activities. Local floodplain permits will be obtained from Allen and Hancock counties prior to the start of construction should they be deemed necessary.

There are no other known local, state, or federal requirements that must be met prior to commencement of the Project.

B(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The Company’s consultant submitted coordination letters to the United States Fish and Wildlife Service (“USFWS”) and the Ohio Department of Natural Resources (“ODNR”) Ohio Natural Heritage Program (“ONHP”) and Division of Wildlife (“DOW”), seeking environmental reviews of potential impacts to threatened or endangered species for the Project. As presented in **Appendix D**, responses from USFWS and ODNR were received on August 8, 2022 and July 27, 2022, respectively.

The August 2022 USFWS response indicated that the entire Project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*) in Ohio. The USFWS recommends avoiding trees ≥ 3 inches diameter at breast height (dbh) wherever possible. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, the USFWS recommends implementing seasonal tree cutting (October 1 through March 31). Since the entire Project will be rebuilt within existing, maintained ROW, minimal tree clearing is

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anticipated. The Company will adhere to seasonal tree clearing restrictions between October 1 and March 31; therefore, adverse impacts to these species are not anticipated.

Due to the Project's type, size, and location, the USFWS does not anticipate adverse impacts to any other endangered, threatened, or proposed species, or proposed or designated critical habitat.

The July 2022 ODNR DOW response indicated that the Project is located within the range of the following protected bat species: the state endangered and federally endangered Indiana bat, the state endangered and federally threatened northern long-eared bat, the state endangered little brown bat (*Myotis lucifugus*), and the state endangered tricolored bat (*Perimyotis subflavus*). The DOW also recommends seasonal tree cutting for trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees ≥ 20 inches dbh between October 1 and March 31 to avoid adverse impacts to these species. If suitable habitat is present within the Project area and trees must be cut in the summer months, the DOW recommends that either a mist net survey or acoustic survey is conducted between June 1 and August 15 prior to any cutting. The Company's consultant performed a desktop assessment for potential hibernacula within a 0.25 mile radius of the Project, which indicated no potential or known hibernaculum. Since the Project proposes rebuilding existing transmission lines within maintained ROW, minimal tree clearing is required for the Project. The Company will adhere to seasonal tree clearing restrictions between October 1 and March 31; therefore, adverse impacts to these species are not anticipated.

The DOW also indicated that the Project is within the range of several state or federal listed freshwater mussels: the clubshell (*Pleurobema clava*), a federally endangered species; the rayed bean (*Villosa fabalis*), a federally threatened species; the purple lilliput (*Toxolasma lividum*), a state endangered species; the pondhorn (*Unio merus tetralasmus*), a state threatened species; and the salamander mussel (*Simpsonia ambigua*). Additionally, the Project is located within the range of the western banded killifish (*Fundulus diaphanous menona*), a state endangered fish. The DOW indicated that due to the location and that no in-water work is proposed in a perennial stream, the Project is not likely to impact these aquatic species.

The DOW indicated that the Project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species that prefers wet meadows and other wetlands. The Company's consultant identified no potentially suitable habitat within the Project area; therefore, no adverse impacts are anticipated for the species.

The Project is within the range of the black-crowned night-heron (*Nycticora nycticroax*), a state threatened bird. Night-herons are so named because they are nocturnal, conducting most foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day. Night herons are migratory and are typically found in Ohio from April 1st through December 1st but can be found in more urbanized areas with reliable food sources year-round. Black-crowned night-herons primarily forage in wetlands and other shallow aquatic habitats, and roost in trees nearby. Night-herons nest in small trees, saplings, shrubs, or sometimes on the ground, near bodies of water and wetlands. If this type of habitat is potentially impacted by project activities, the DOW recommends avoiding construction during the species' nesting period of May 1 through July 31. The Company's

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consultant identified no potentially suitable habitat; therefore, the Project is not anticipated to impact the black-crowned night-heron.

The Project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird that prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass, or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat is potentially impacted, the DOW recommends avoiding constructions during the species' nesting period (May 1 through July 31). The Company's consultant identified no potentially suitable habitat; therefore, the Project is not anticipated to impact the least bittern.

The DOW indicated that the Project is within the range of the northern harrier (*Circus hudsonius*), a state endangered bird and common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies and hunt over grasslands. The female builds a nest out of sticks on the ground, often on top of a mound. If these types of habitats are potentially impacted, the DOW recommends avoiding construction during the species' nesting period (April 15 through July 31). The Company's consultant identified no potentially suitable habitat within the Project; therefore, no adverse impacts are anticipated for the northern harrier.

B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

In June and July 2022, wetland and stream delineation surveys were completed by the Company's consultant for a 100-foot-wide environmental survey corridor (ESC) for the entire Fostoria – East Lima 138 kV Transmission Line, which encompasses the Project area in addition to the North Woodcock – New Liberty 138 kV Transmission Line Rebuild Project (see Case No. 24-0077-EL-BLN). The Project's ecological survey report is summarized below and presented in its entirety in **Appendix E**.

Within the 100-foot-wide ESC encompassing the Project, the Company's consultant identified: 30 wetlands, including 28 palustrine emergent ("PEM") wetlands, one palustrine scrub-shrub ("PSS") wetland, and one PEM/palustrine forested ("PFO") wetland complex; 15 streams, including 11 perennial streams and four intermittent streams; as well as three freshwater ponds. No existing or proposed structures are located within the delineated wetland, pond, or stream areas; therefore, the Company does not anticipate any impacts to these features as a result of the Project.

FEMA Flood Insurance Rate Maps ("FIRMs") were reviewed to identify floodplains/flood hazard areas within the Project area: FIRM panels 39003C0090D, 39003C0095E, 39003C0210D, 39003C0220D, 39003C0230E, 39063C0115E, 39063C0120E, 39063C0205E, 39063C0208E, 39063C0209E, 39063C0230E, 39063C0232E, 39063C0235E, 39063C0295E, 39137C0315D, 39137C0320D,

**LETTER OF NOTIFICATION FOR FOSTORIA – EAST LIMA 138 kV TRANSMISSION LINE REBUILD PROJECT
(EAST LIMA – NORTH WOODCOCK AND NEW LIBERTY – WEST END FOSTORIA)**

39173Co420D, 39173Co440D, and 39173Co445D. Based on this mapping, five (5) mapped FEMA-designated 100-year floodplain areas and two (2) FEMA-designated regulatory floodway areas are located in the Project area. However, no proposed structures are located within FEMA-designated 100-year floodplain or regulatory floodway areas. Still, floodplain permitting may be required for the Project if a substantial change in BFE is anticipated from Project activities. Local floodplain permits will be obtained from Allen and Hancock counties prior to the start of construction should they be deemed necessary.

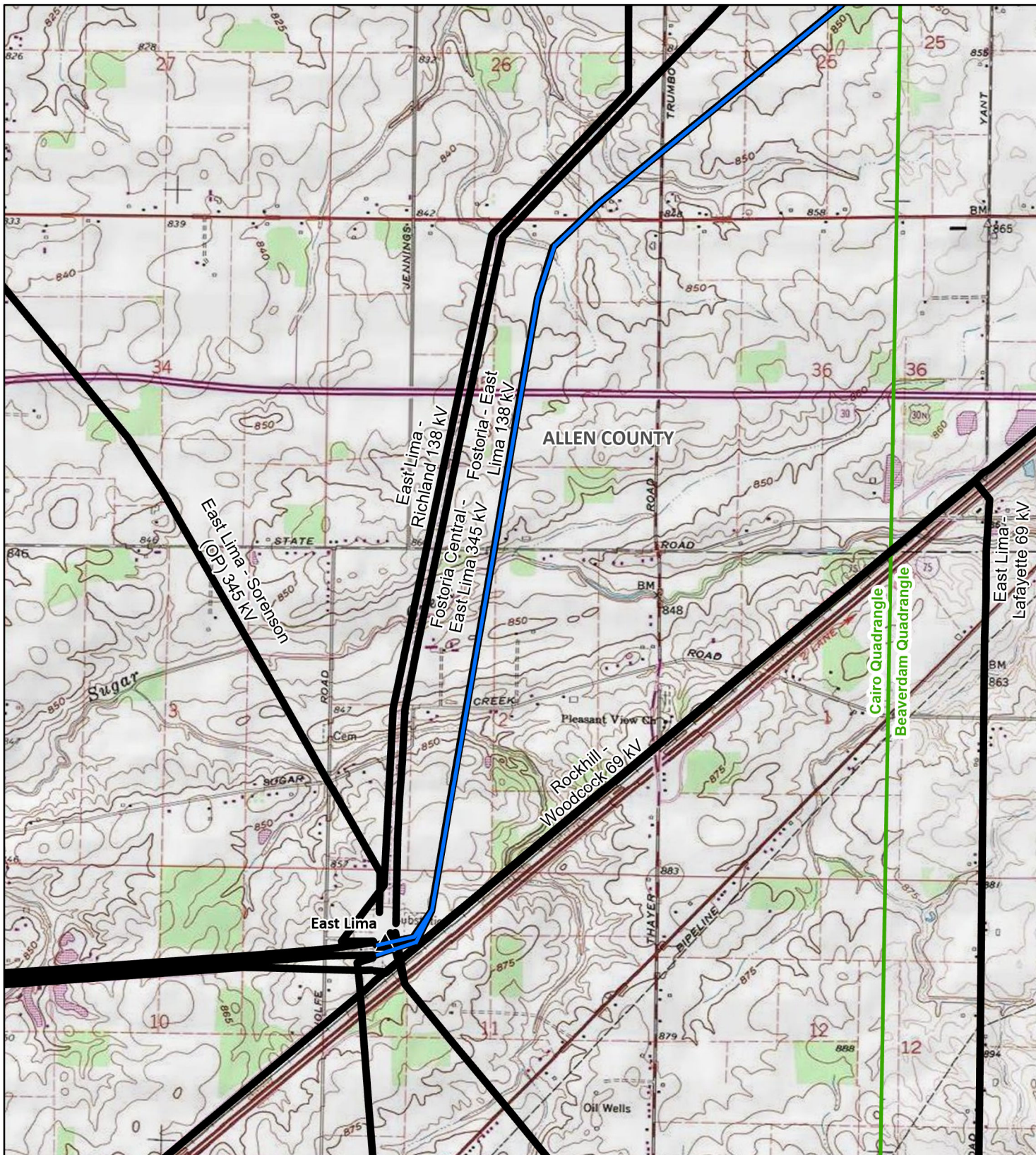
No other areas of ecological concern were identified within the Project area.

B(10)(g) Unusual Conditions

Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of the Company's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Appendix A Project Maps



- ▲ Existing Station
- Fostoria - East Lima 138 kV
- Transmission Line Rebuild
- Existing Transmission Line
- Municipality
- County Boundary
- USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2020)

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North NAD 83

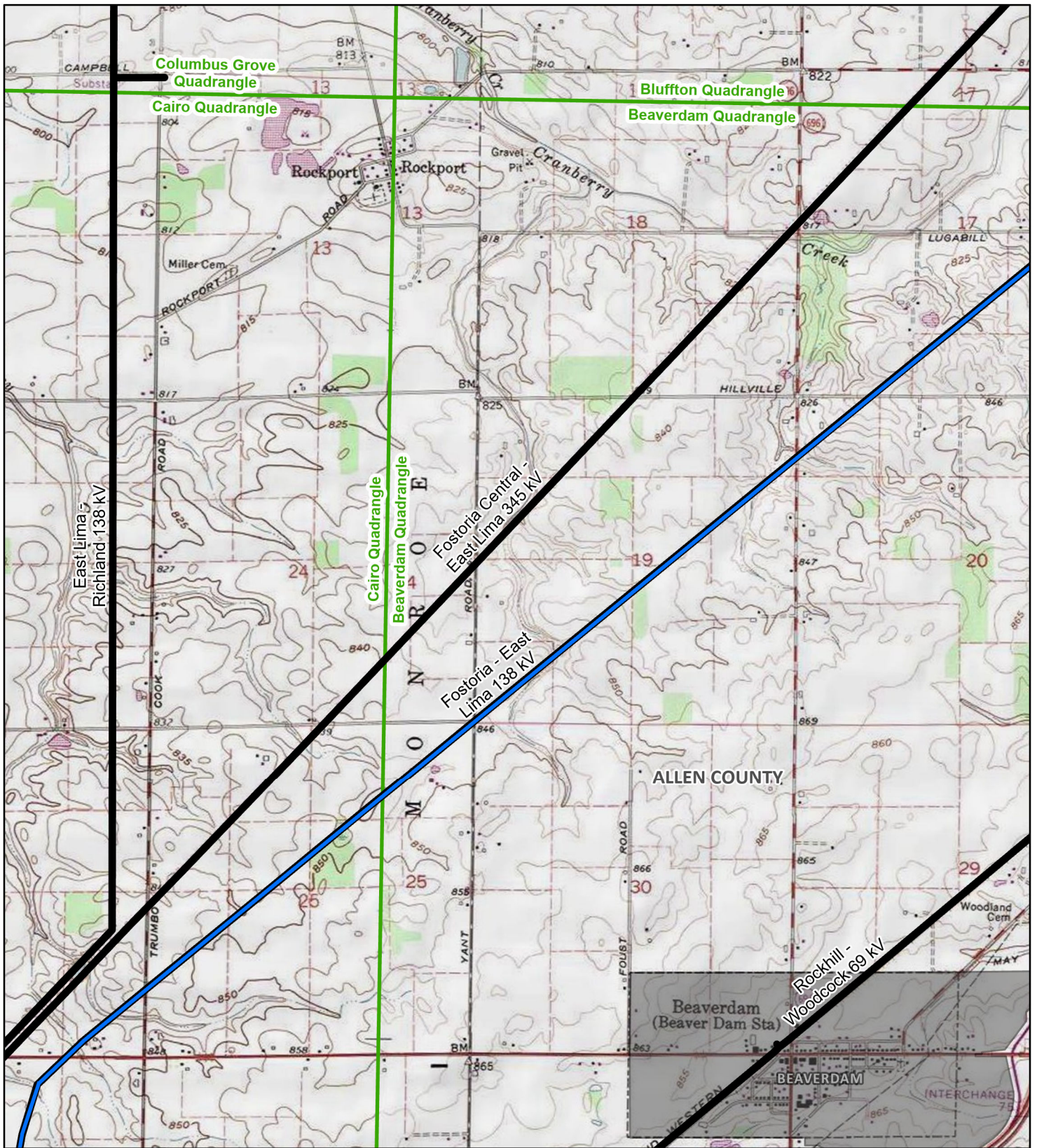
February 02, 2024



Map 1
Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



- ▲ Existing Station
- Fostoria - East Lima 138 kV
- Transmission Line Rebuild
- Existing Transmission Line
- Municipality
- County Boundary
- USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2020)

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Map 1 Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



- ▲ Existing Station
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- Existing Transmission Line
- Municipality
- ▭ County Boundary
- ▭ USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2020)

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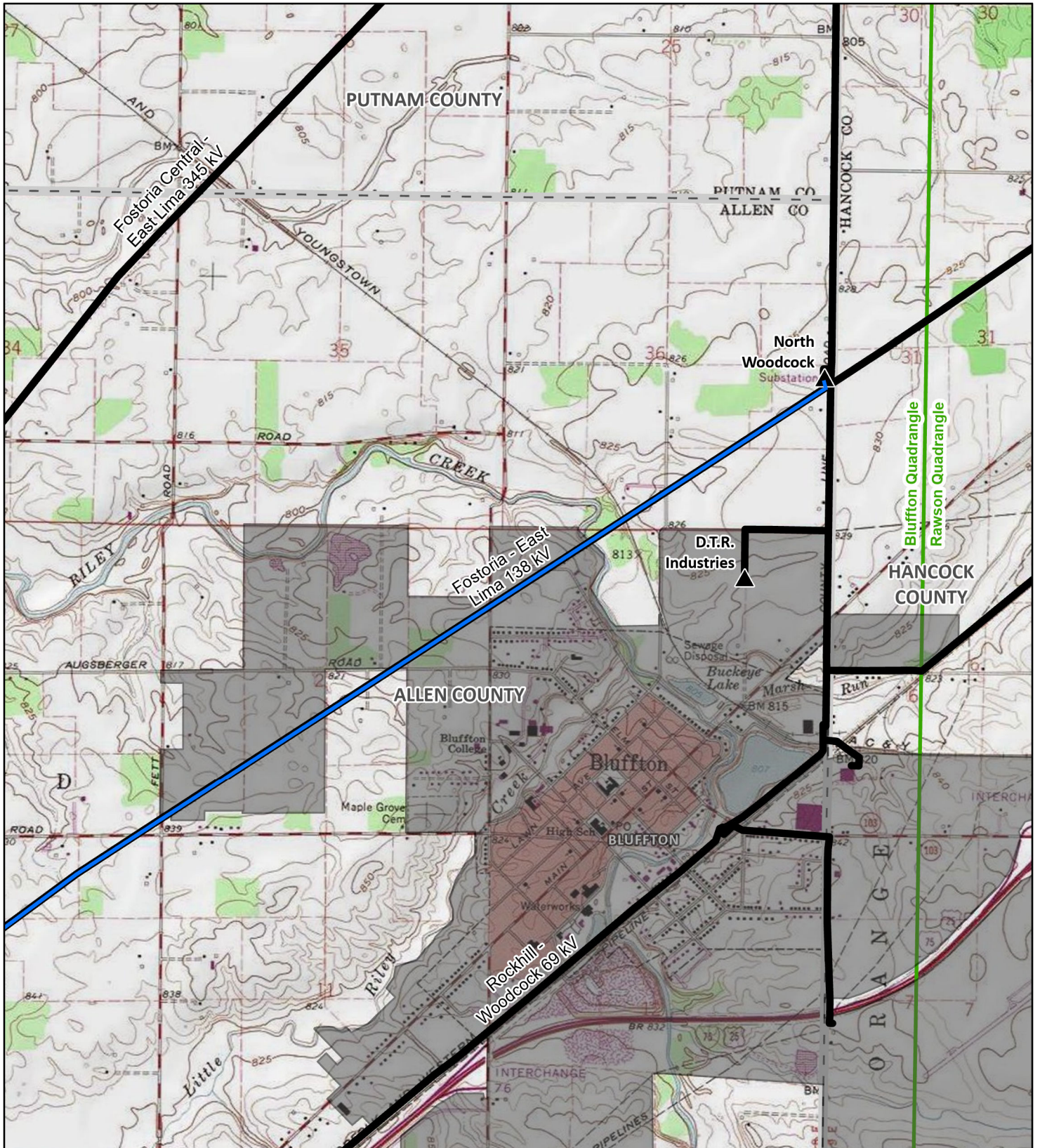
February 02, 2024



Map 1
Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



- ▲ Existing Station
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- Transmission Line Rebuild
- Existing Transmission Line
- Municipality
- ▭ County Boundary
- ▭ USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2020)

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North NAD 83

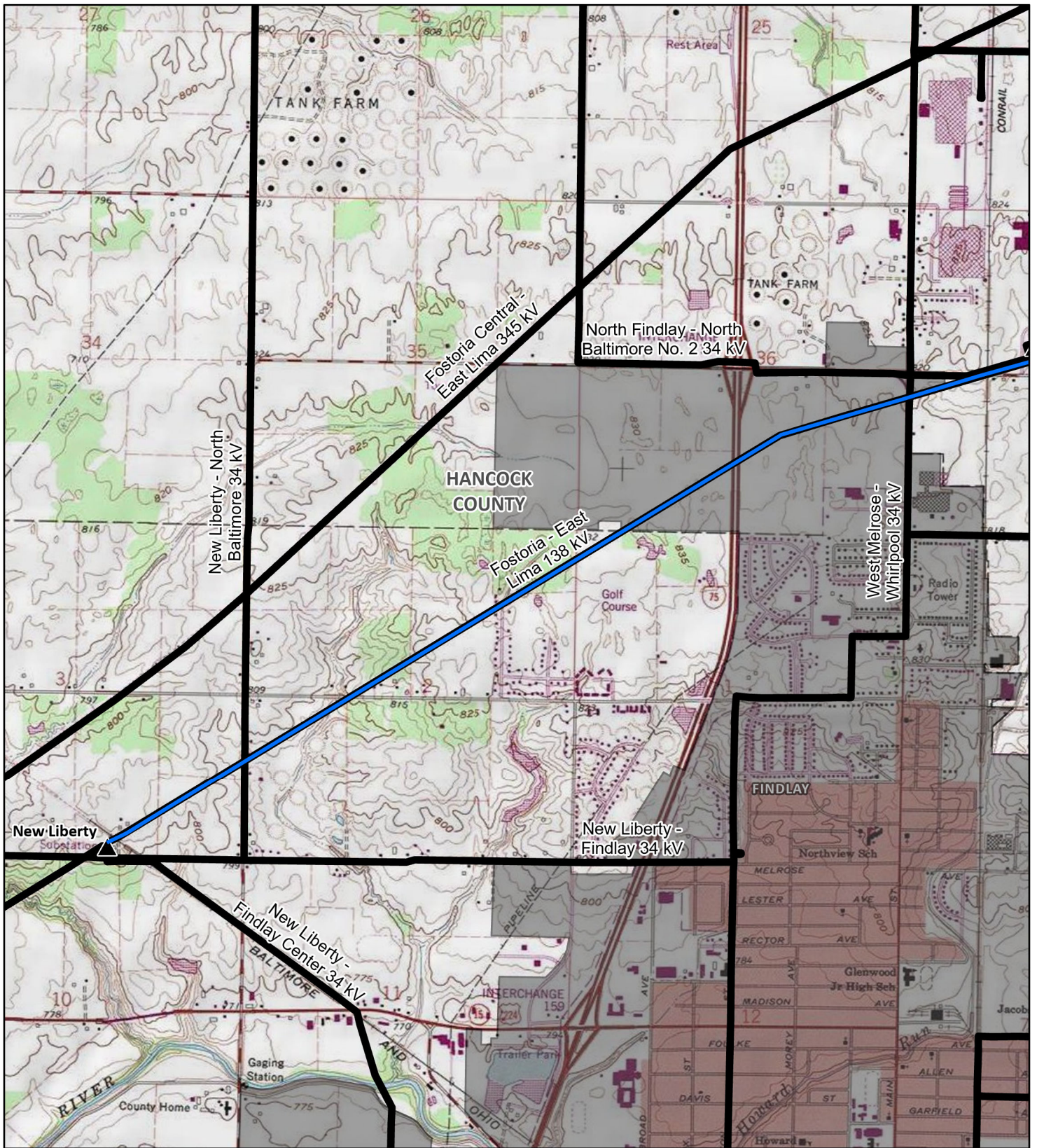
February 02, 2024



Map 1
Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



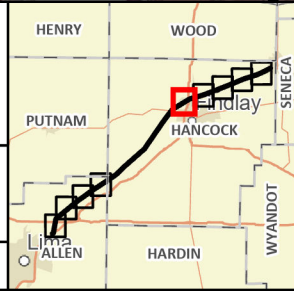
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- Existing Transmission Line
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- ▭ USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2020)

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Map 1
Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



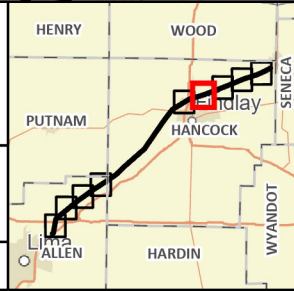
- ▲ Existing Station
- Fostoria - East Lima 138 kv
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Sources:
USGS (2020)

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Map 1
Project Area

Fostoria - East Lima 138 kv
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



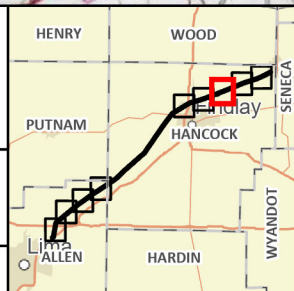
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Sources:
USGS (2020)

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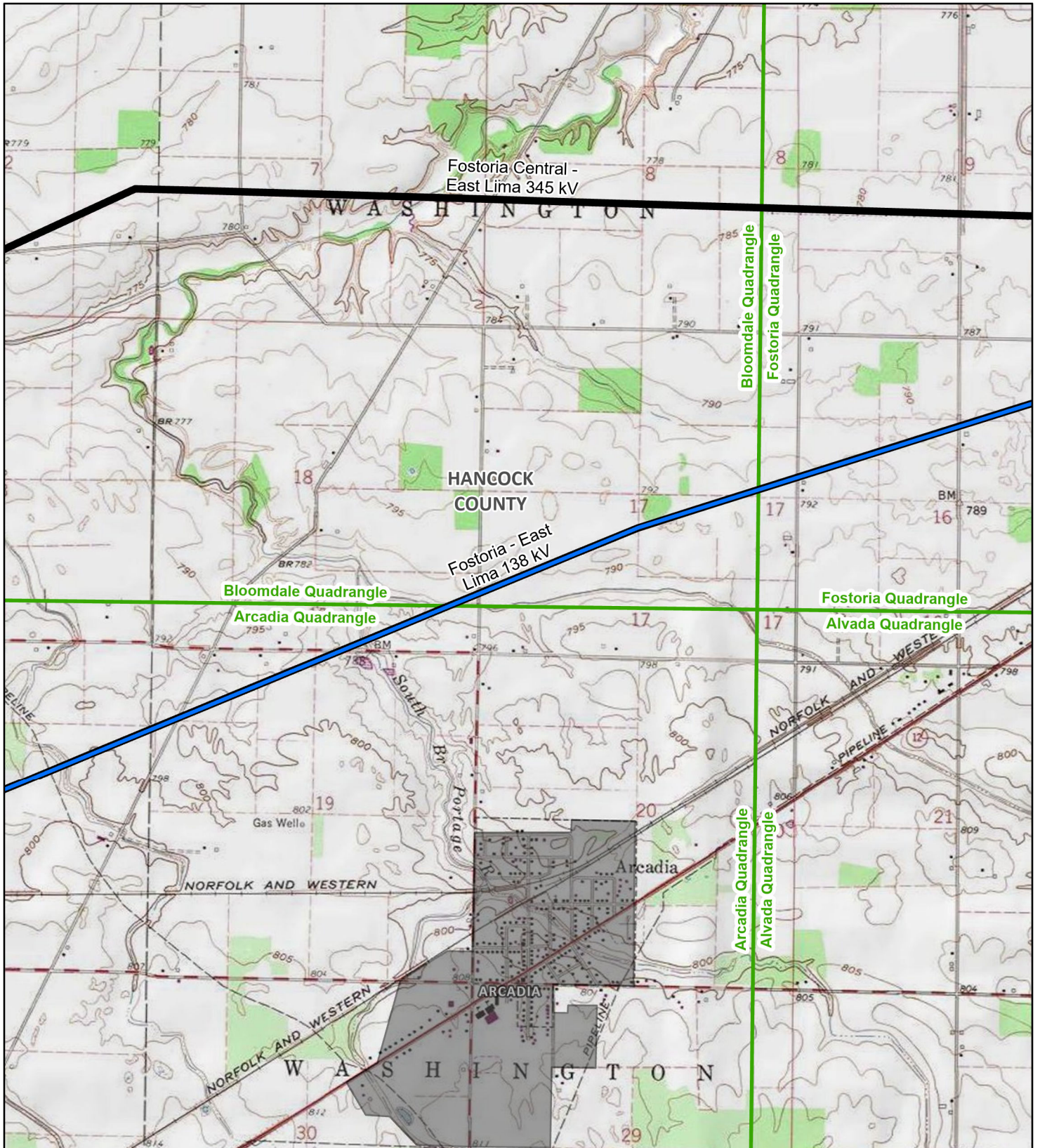
February 02, 2024



Map 1
Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



- ▲ Existing Station
- Fostoria - East Lima 138 kV
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- ▭ County Boundary
- ▭ USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2020)

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North NAD 83

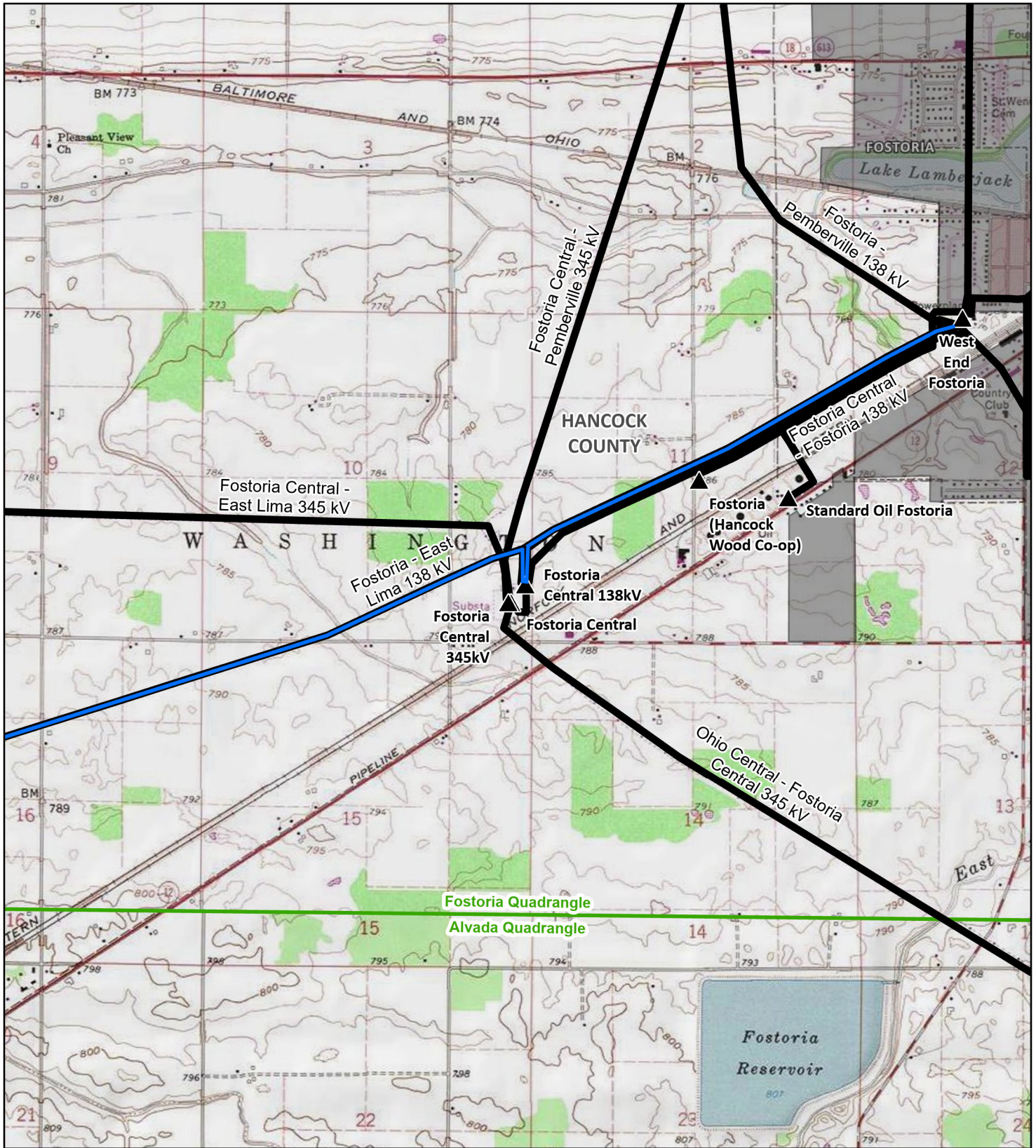
February 02, 2024



Map 1
Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



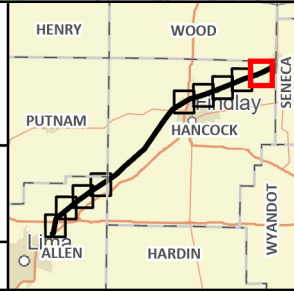
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- Fostoria - East Lima 138 kV
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- ▭ USGS 7.5' Topographic Quad Boundary

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USGS (2020)

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North NAD 83

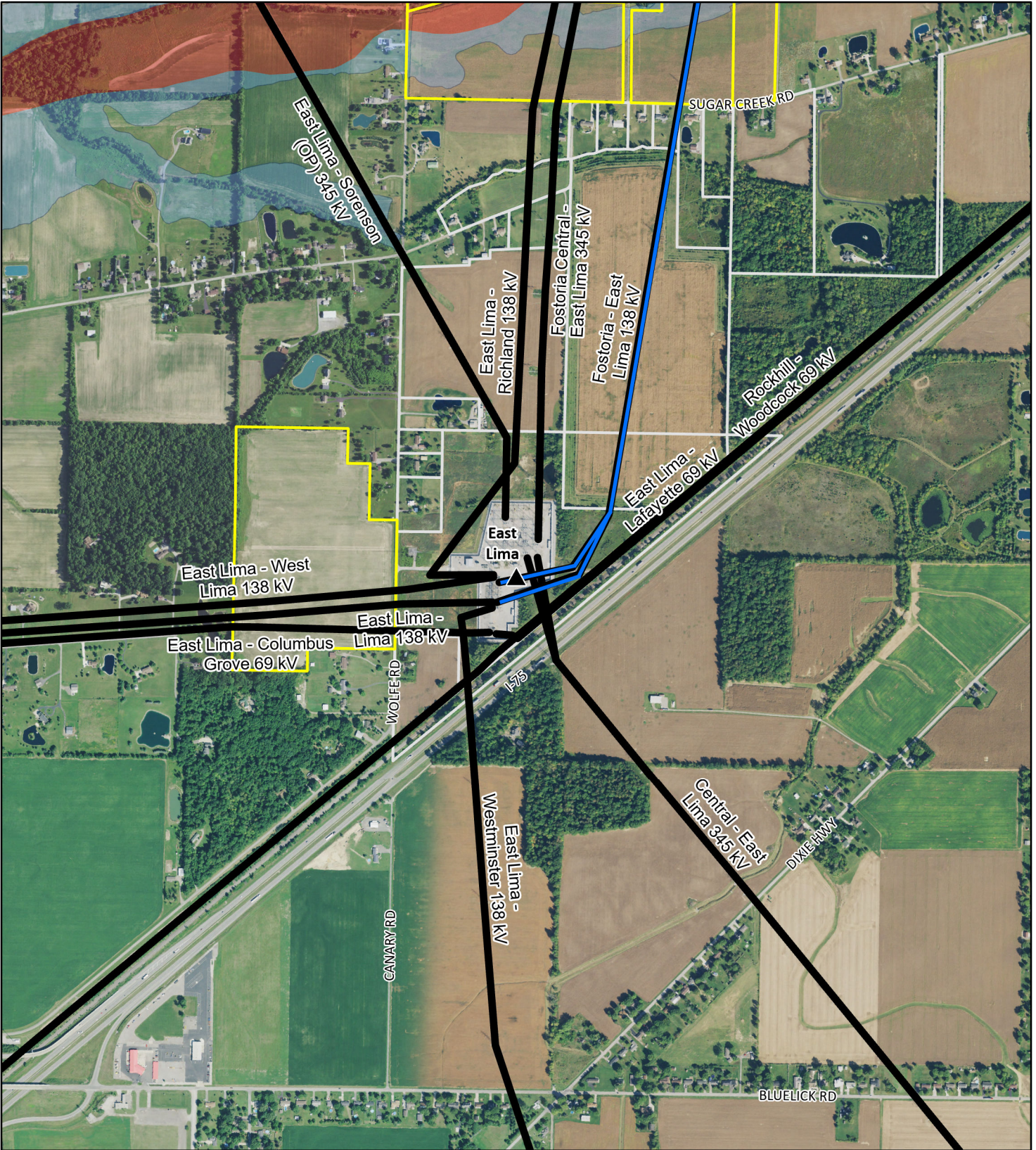
February 02, 2024











Map 1
Project Area

Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)

0 1,000 2,000 3,000 4,000
Feet



-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
-  FEMA Regulatory Floodway
-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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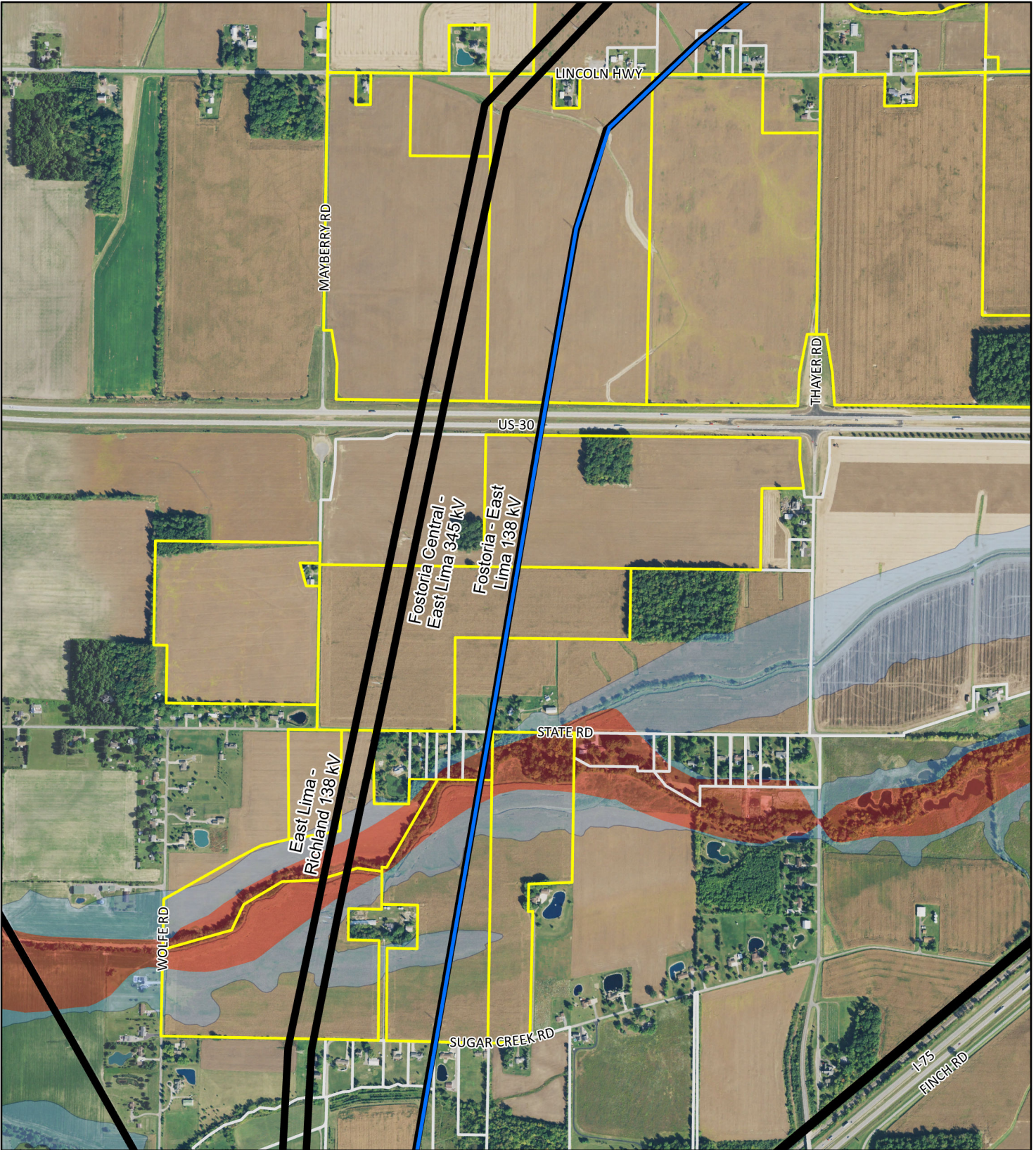










Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

 AEP OHIO TRANSMISSION COMPANY
 A POWER OF AMERICA COMPANY

0 500 1,000 1,500 2,000
 Feet



-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
-  FEMA Regulatory Floodway
-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock
 County Parcels (2023)

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 North NAD 83

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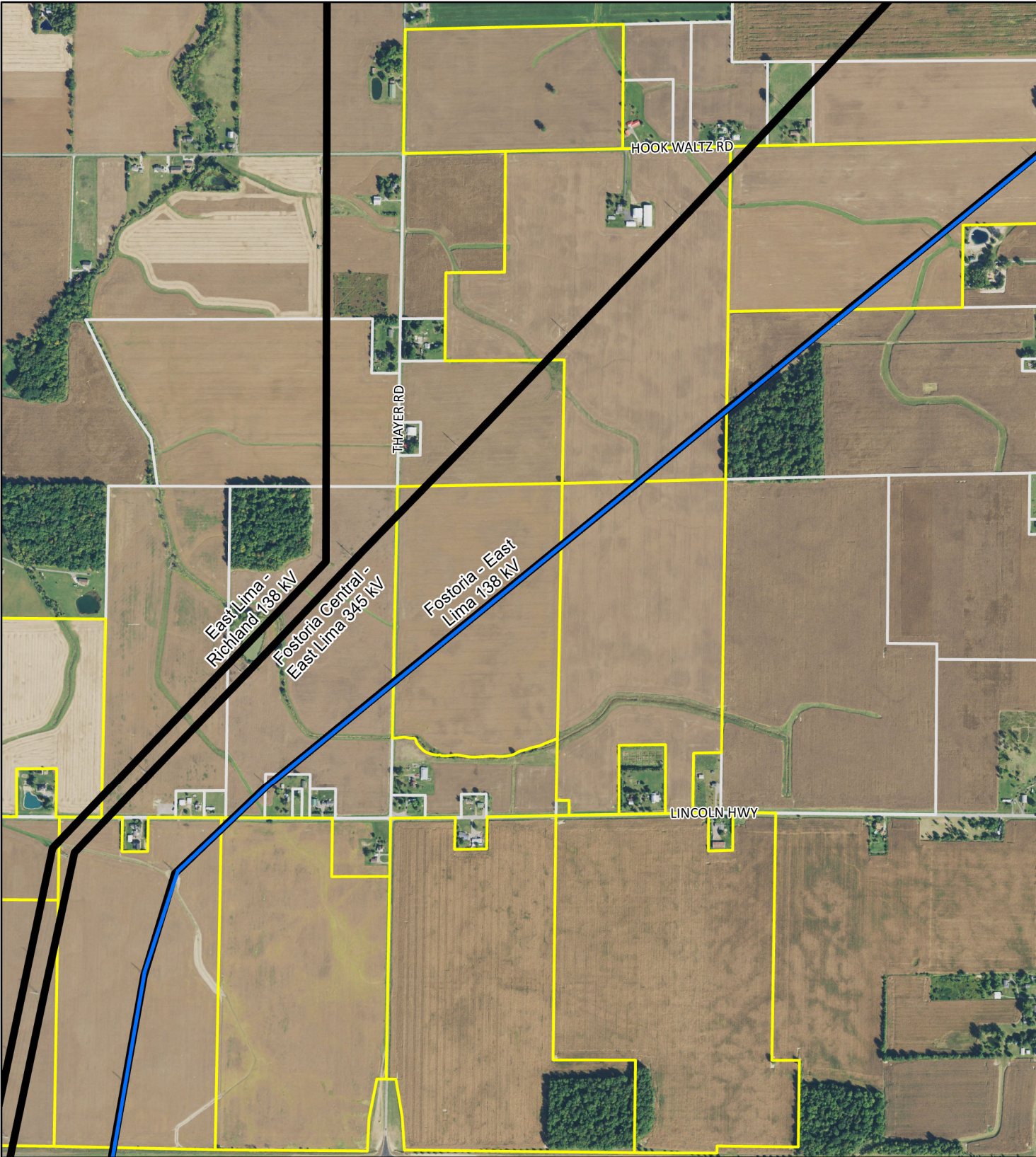










**Map 2
Aerial Map**

**Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)**

AEP OHIO TRANSMISSION COMPANY
AEP ENERGY SERVICES

0 500 1,000 1,500 2,000
Feet



-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
-  FEMA Regulatory Floodway
-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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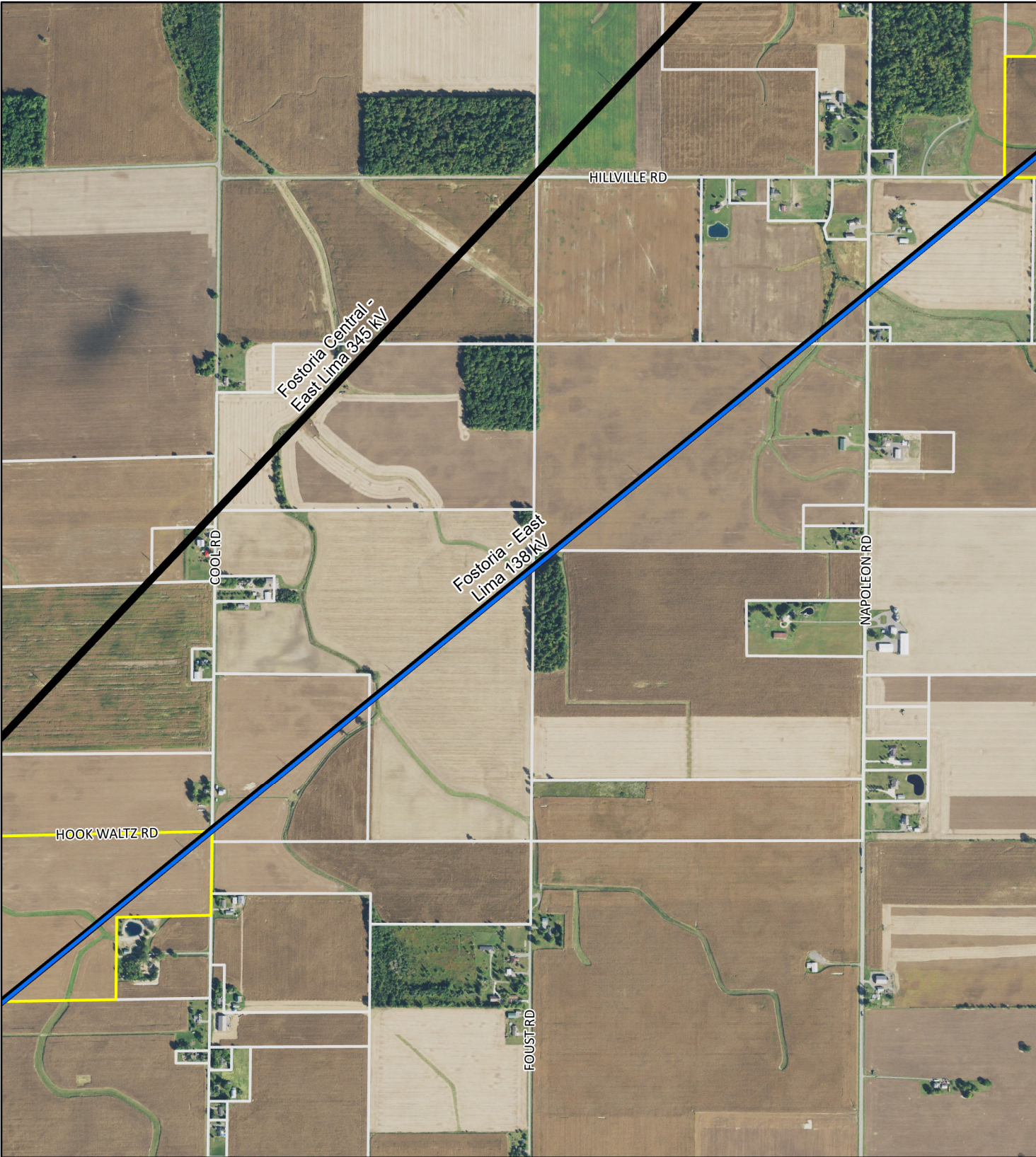










Map 2
Aerial Map

Fostoria - East Lima 138 kV Transmission Line Rebuild Project (East Lima - North Woodcock and New Liberty - West End Fostoria)

AEP OHIO TRANSMISSION COMPANY
 AEP ENERGY SERVICES

0 500 1,000 1,500 2,000
 Feet



-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
-  FEMA Regulatory Floodway
-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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 North NAD 83

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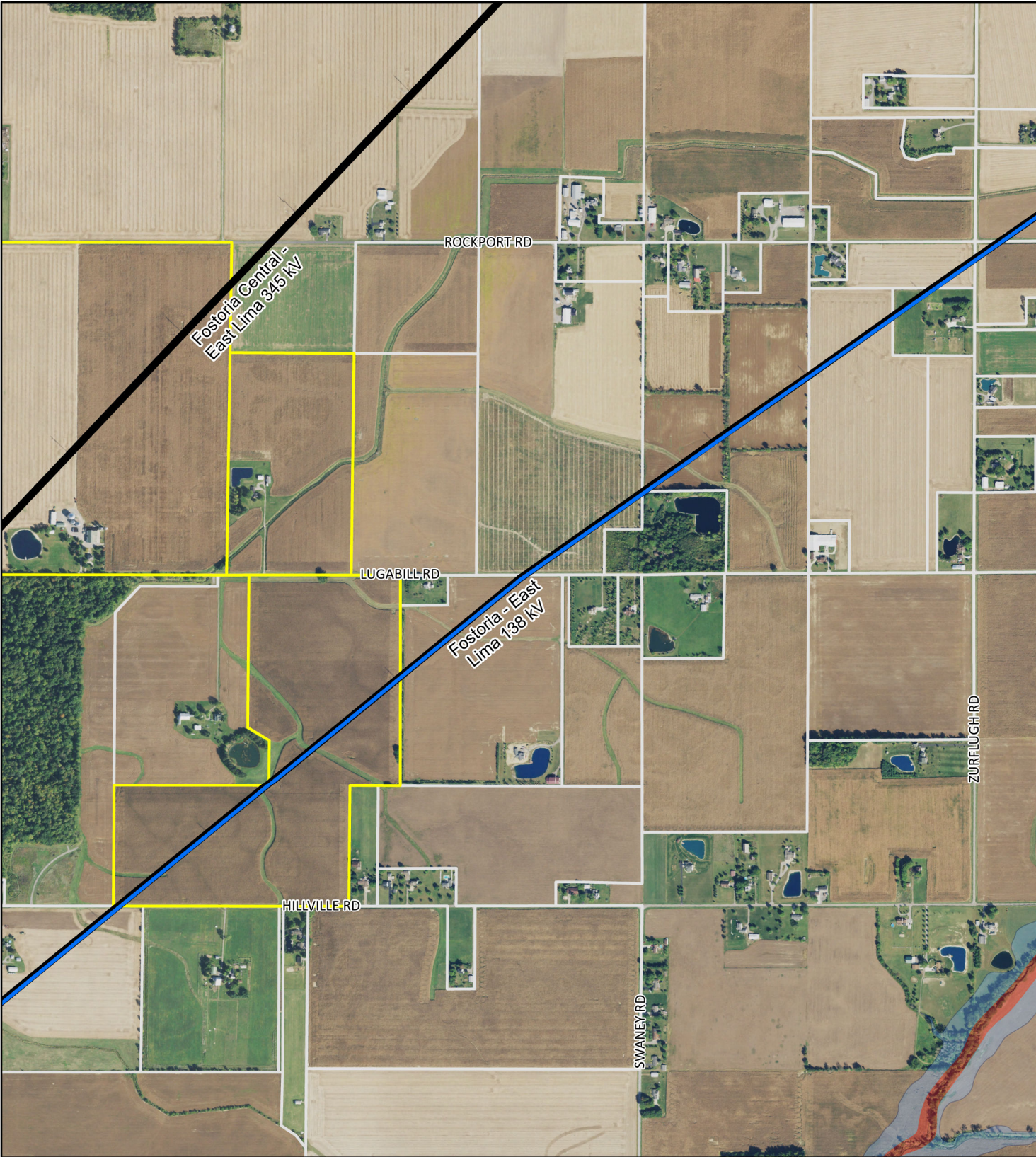


Map 2
Aerial Map

Fostoria - East Lima 138 kV Transmission Line Rebuild Project (East Lima - North Woodcock and New Liberty - West End Fostoria)

AEP OHIO TRANSMISSION COMPANY
 A subsidiary of
 ROUNDHILL ENERGY

0 500 1,000 1,500 2,000
 Feet



- ▲ Existing Station
- Fostoria - East Lima 138 kv Transmission Line Rebuild
- Existing Transmission Line
- ▭ Agricultural District Parcel
- ▭ Parcel Boundary
- ▭ County Boundary
- ▭ FEMA Regulatory Floodway
- ▭ FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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 North NAD 83

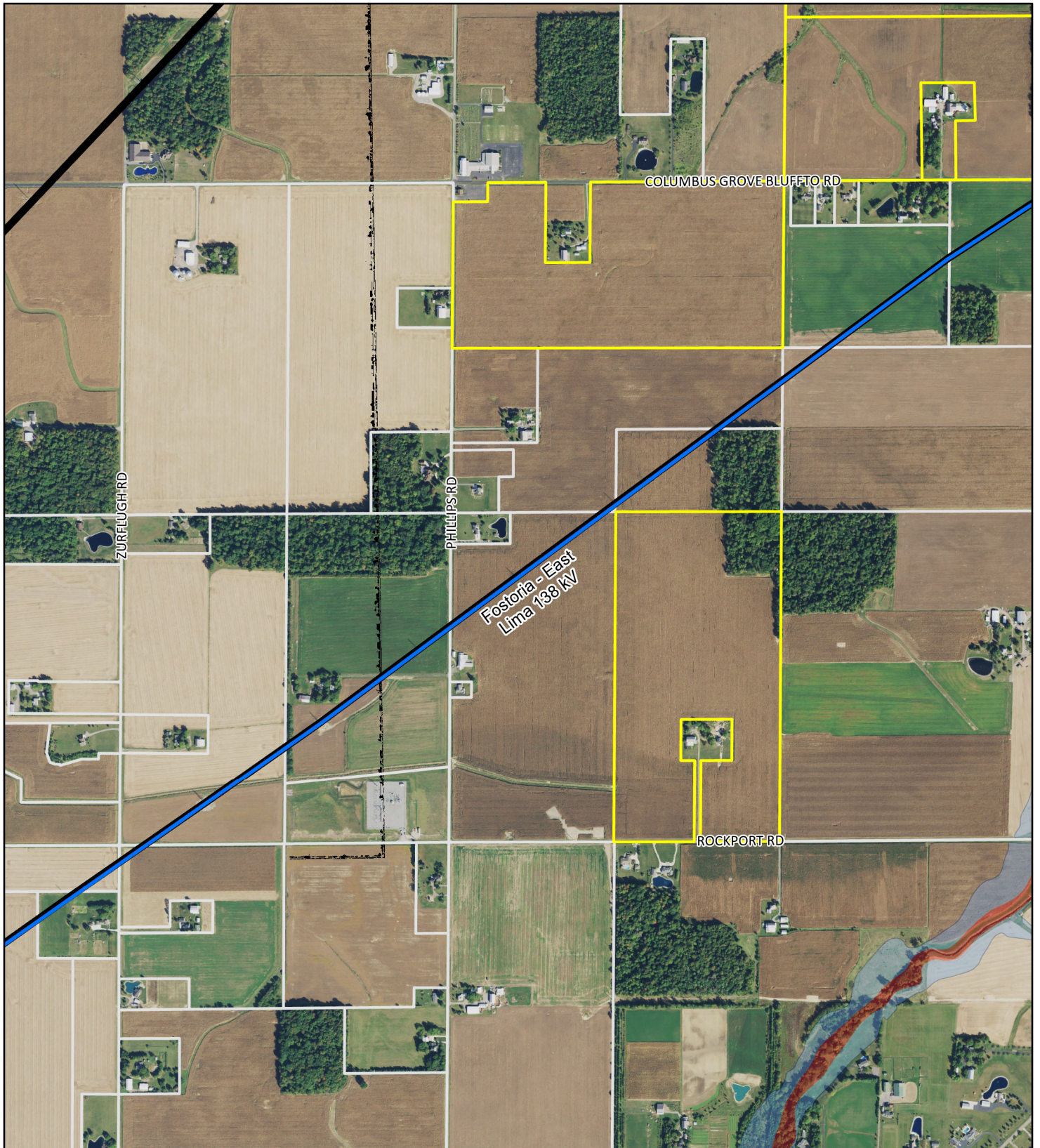
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



Map 2
Aerial Map

Fostoria - East Lima 138 kv
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

0 500 1,000 1,500 2,000
 Feet

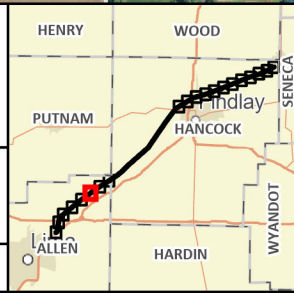


-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
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Sources:
 NAIP Imagery (2021)
 Allen and Hancock
 County Parcels (2023)
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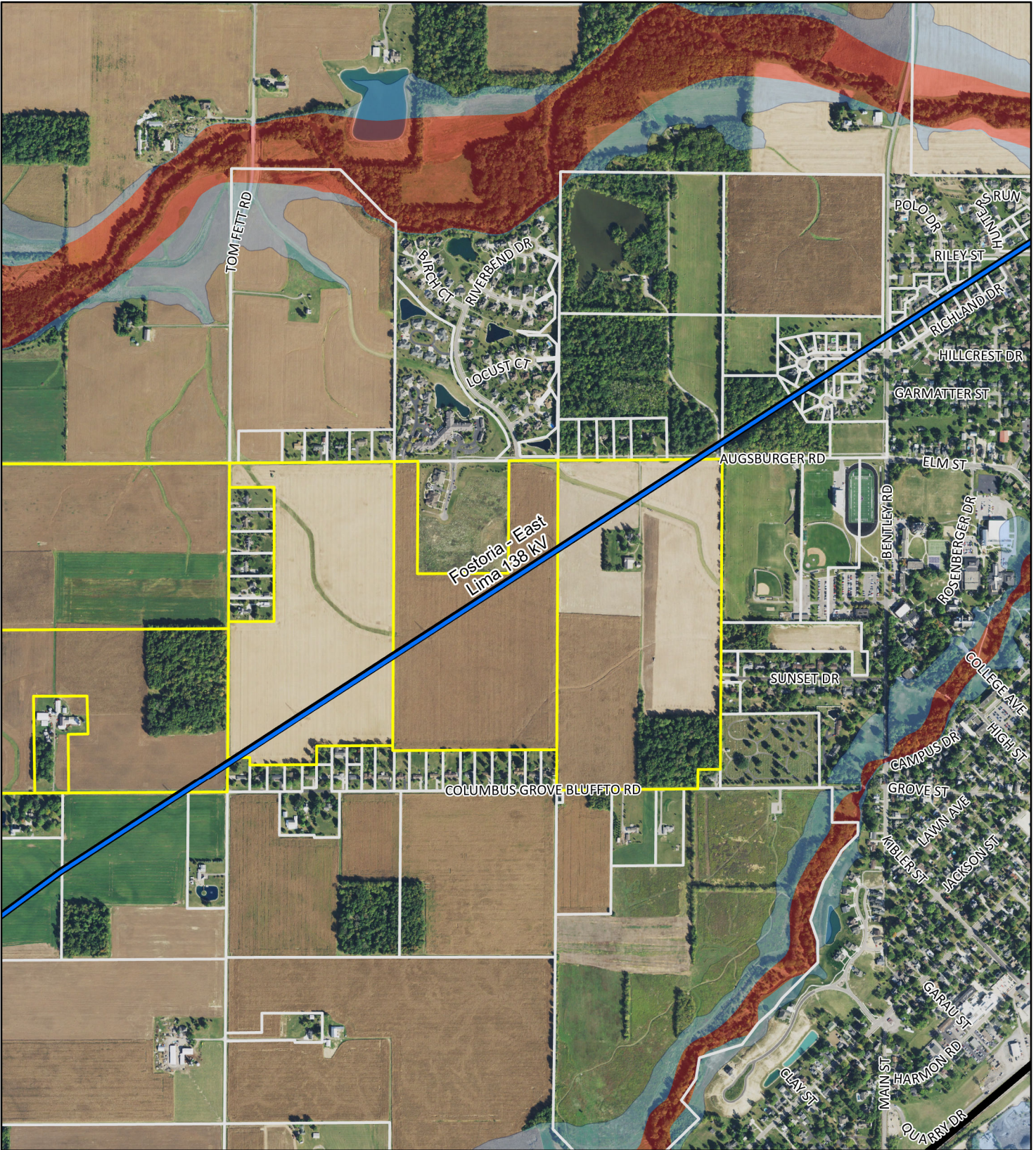










Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

 AEP OHIO TRANSMISSION COMPANY
 A POWER OF AMERICA COMPANY
 ROUNDELL ENERGY

0 500 1,000 1,500 2,000
 Feet



-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
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Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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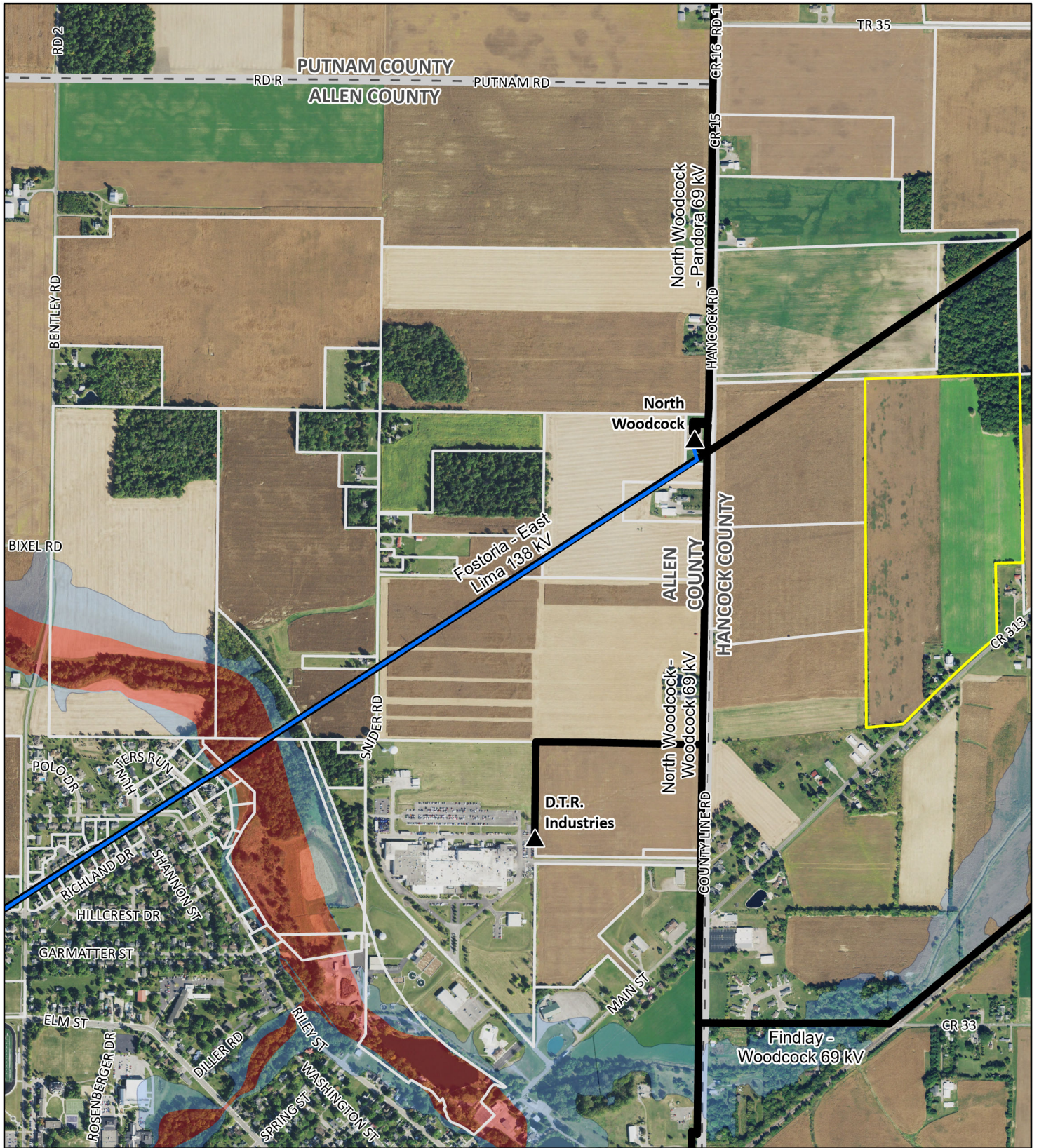










Map 2
Aerial Map

Fostoria - East Lima 138 kV Transmission Line Rebuild Project (East Lima - North Woodcock and New Liberty - West End Fostoria)

AEP OHIO TRANSMISSION COMPANY
 AEP ENERGY SERVICES

0 500 1,000 1,500 2,000
 Feet



-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
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Sources:
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 Allen and Hancock
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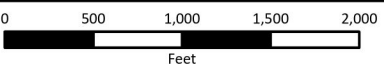
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Map 2 Aerial Map









Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)





0 500 1,000 1,500 2,000
Feet



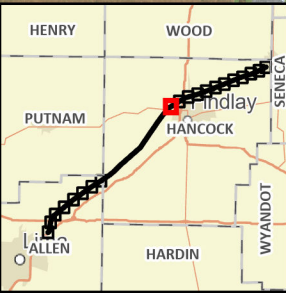
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-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
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-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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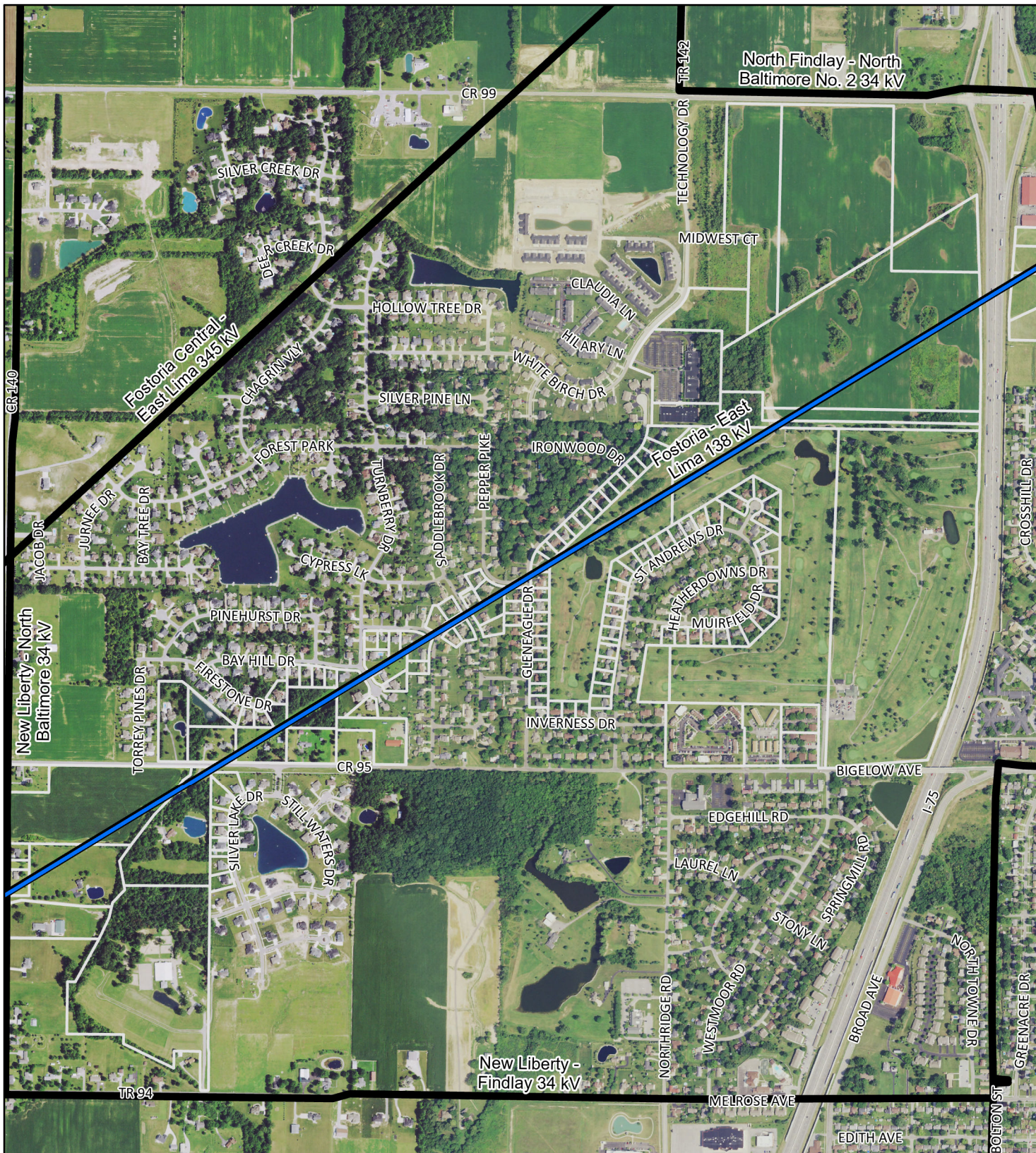
Map 2
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

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)



0 500 1,000 1,500 2,000

Feet



-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Parcel Boundary
-  County Boundary
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-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock
 County Parcels (2023)
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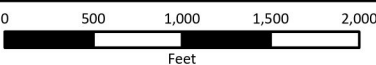


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Aerial Map

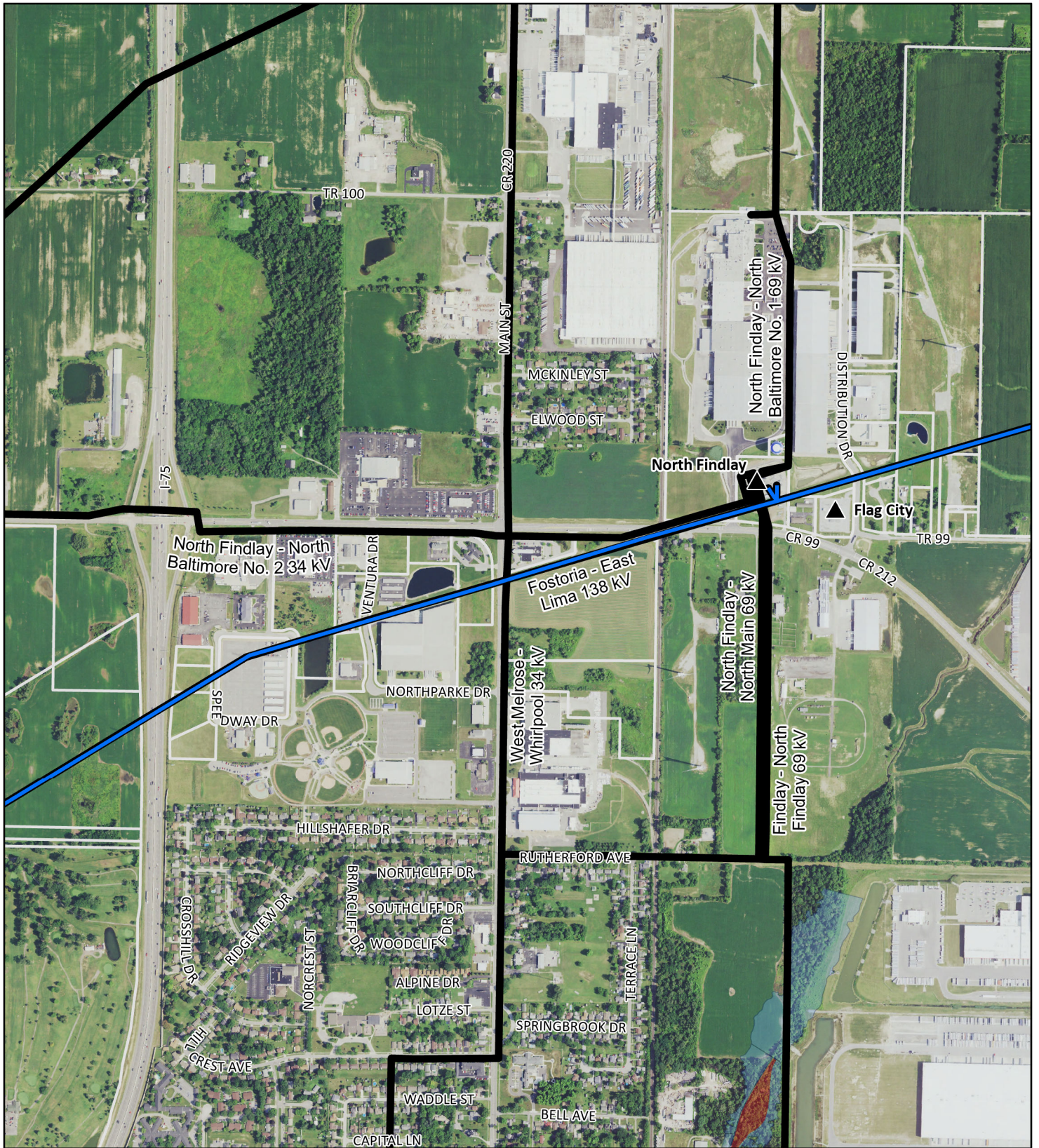
**Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)**










AEP OHIO TRANSMISSION COMPANY
 AEP ENERGY SERVICES



0 500 1,000 1,500 2,000
 Feet




	Existing Station		Parcel Boundary
	Fostoria - East Lima 138 kV Transmission Line Rebuild		County Boundary
	Existing Transmission Line		FEMA Regulatory Floodway
			FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)

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Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)



0 500 1,000 1,500 2,000
 Feet



Fostoria - East Lima 138 kV

TR 228

TR 215

TR 230

TR 99

TR 213

CR 118

CR 122

	Existing Station		Parcel Boundary
	Fostoria - East Lima 138 kV Transmission Line Rebuild		County Boundary
	Existing Transmission Line		FEMA Regulatory Floodway
			FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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 North NAD 83

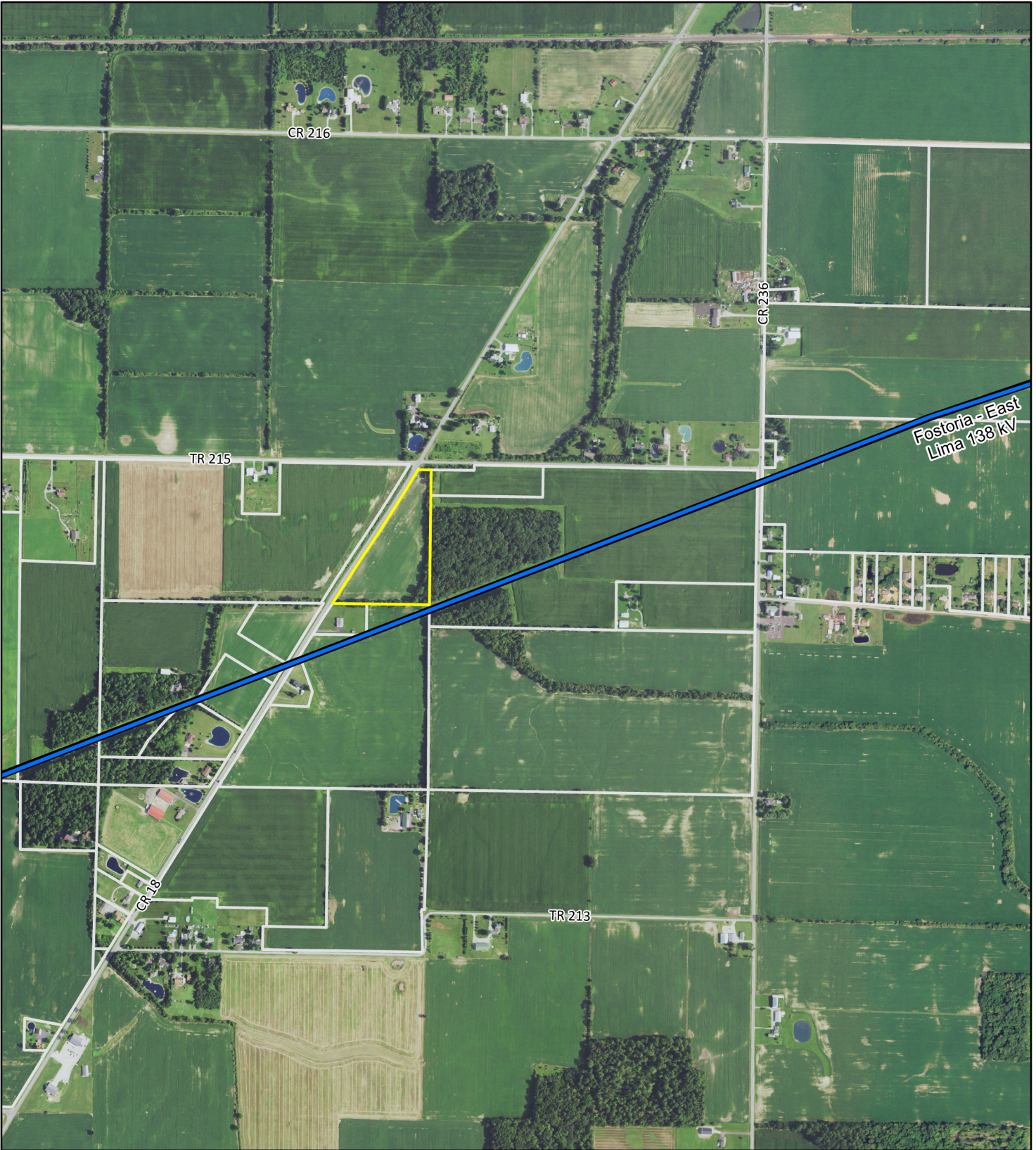
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

Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

0 500 1,000 1,500 2,000
 Feet



Fostoria - East Lima 138 kV

-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
-  FEMA Regulatory Floodway
-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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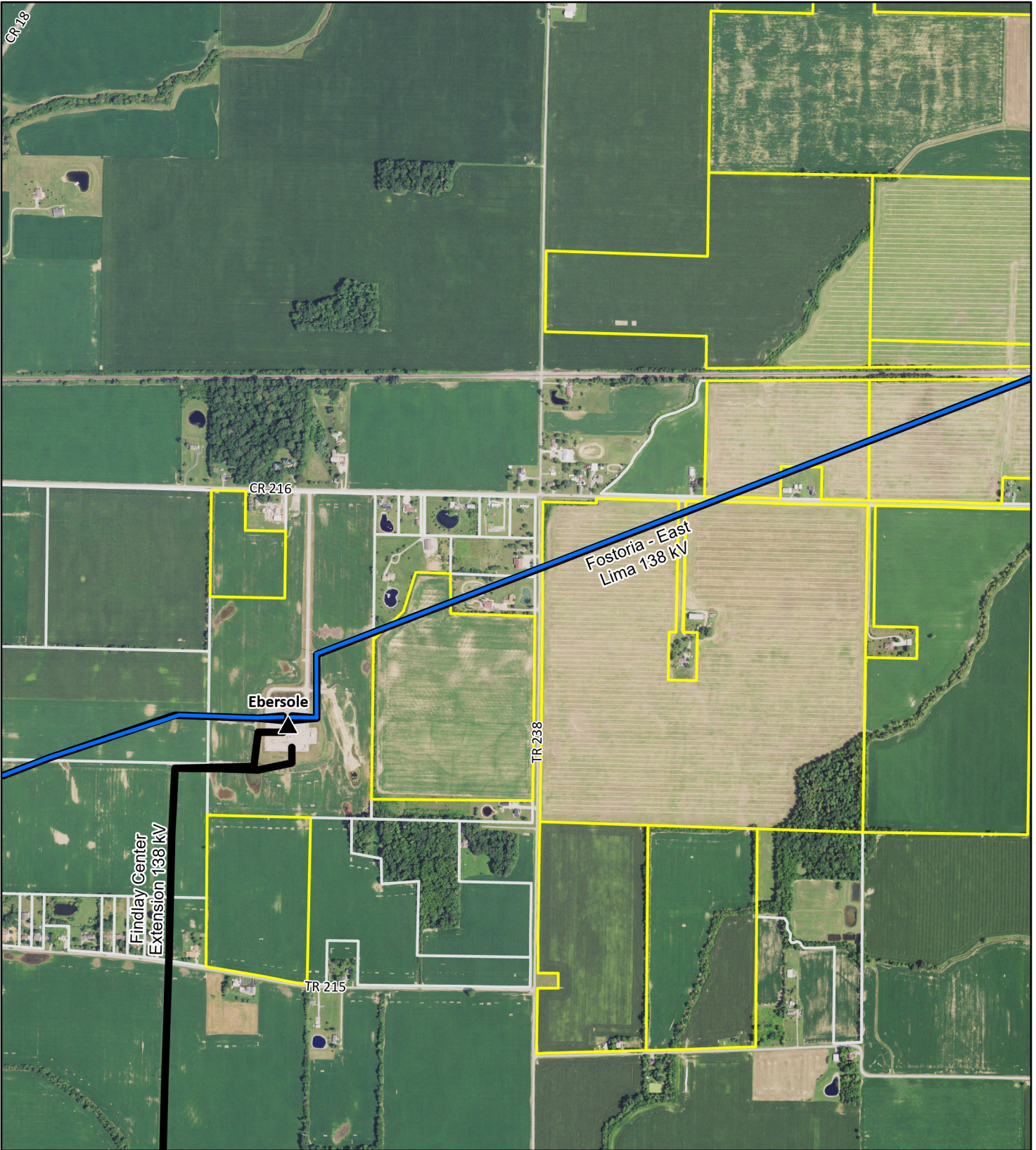










Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)



0 500 1,000 1,500 2,000
 Feet




	Existing Station		Parcel Boundary
	Fostoria - East Lima 138 kV Transmission Line Rebuild		County Boundary
	Existing Transmission Line		FEMA Regulatory Floodway
	Agricultural District Parcel		FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)

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February 02, 2024




Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)



0 500 1,000 1,500 2,000
 Feet





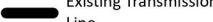
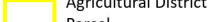

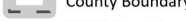
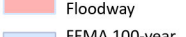
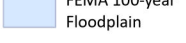
Fostoria - East
Lima 138 kV

CR 109

TR 247

TR 243

CR 216

-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
-  FEMA Regulatory Floodway
-  FEMA 100-year Floodplain

Sources:
NAIP Imagery (2021)
Allen and Hancock
County Parcels (2023)
Page 15 of 20

State Plane Ohio
North NAD 83



February 02, 2024

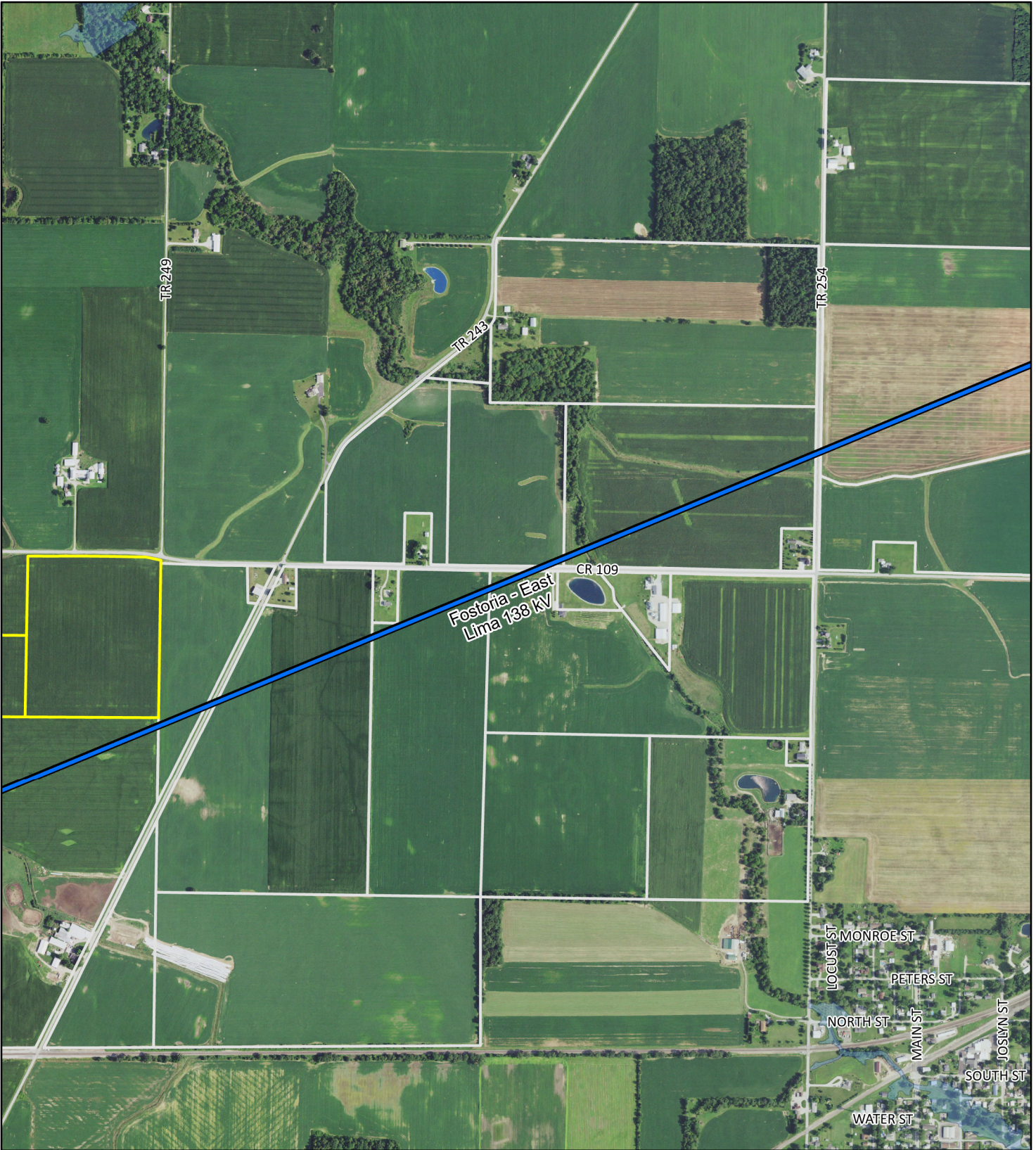










Map 2
Aerial Map

**Fostoria - East Lima 138 kV
Transmission Line Rebuild Project
(East Lima - North Woodcock and
New Liberty - West End Fostoria)**

AEP OHIO TRANSMISSION COMPANY
AEP ENERGY SERVICES
ROUNDER ENERGY

0 500 1,000 1,500 2,000
Feet



	Existing Station		Parcel Boundary
	Fostoria - East Lima 138 kV Transmission Line Rebuild		County Boundary
	Existing Transmission Line		FEMA Regulatory Floodway
	Agricultural District Parcel		FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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State Plane Ohio
 North NAD 83

February 02, 2024

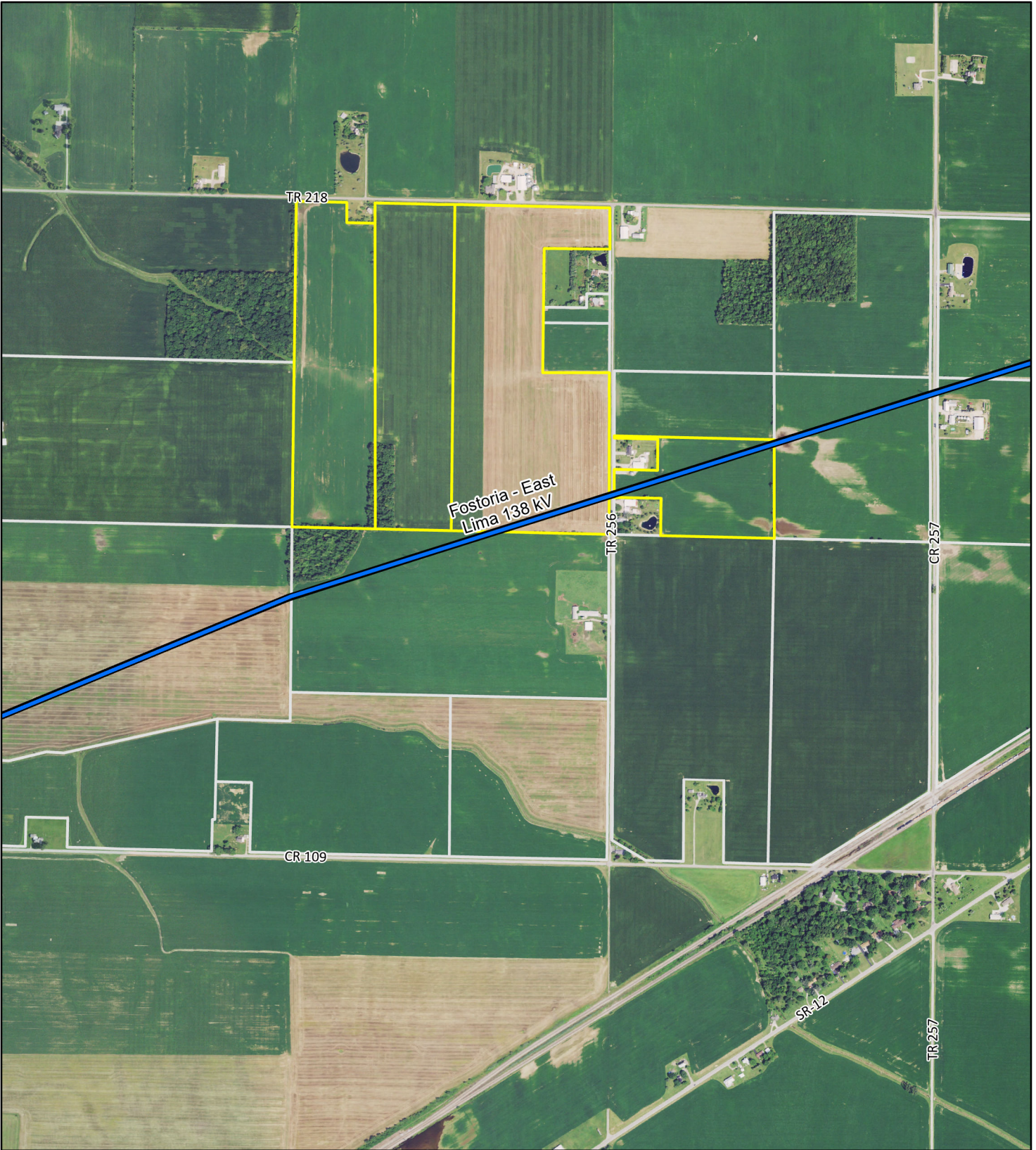










Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

 AEP OHIO TRANSMISSION COMPANY
 AEP ENERGY SERVICES

0 500 1,000 1,500 2,000
 Feet

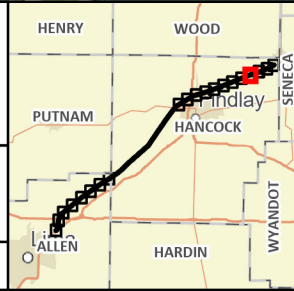


-  Existing Station
-  Fostoria - East Lima 138 kV Transmission Line Rebuild
-  Existing Transmission Line
-  Agricultural District Parcel
-  Parcel Boundary
-  County Boundary
-  FEMA Regulatory Floodway
-  FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock
 County Parcels (2023)
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State Plane Ohio
 North NAD 83

February 02, 2024

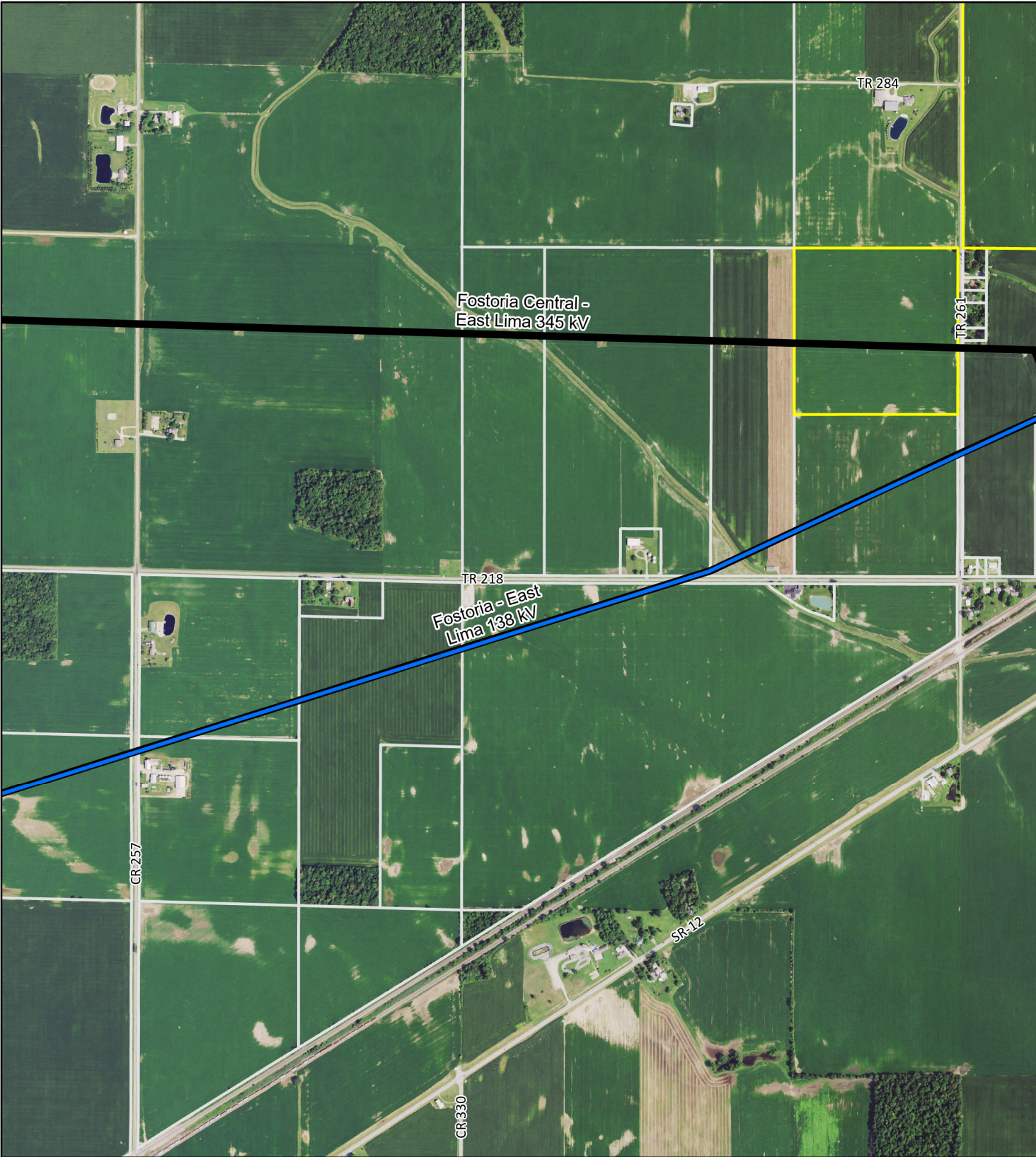










Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

AEP OHIO TRANSMISSION COMPANY
 AEP ENERGY SERVICES
 ROUNDHILL ENERGY

0 500 1,000 1,500 2,000
 Feet



	Existing Station		Parcel Boundary
	Fostoria - East Lima 138 kV Transmission Line Rebuild		County Boundary
	Existing Transmission Line		FEMA Regulatory Floodway
	Agricultural District Parcel		FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
Page 18 of 20


State Plane Ohio
 North NAD 83

February 02, 2024

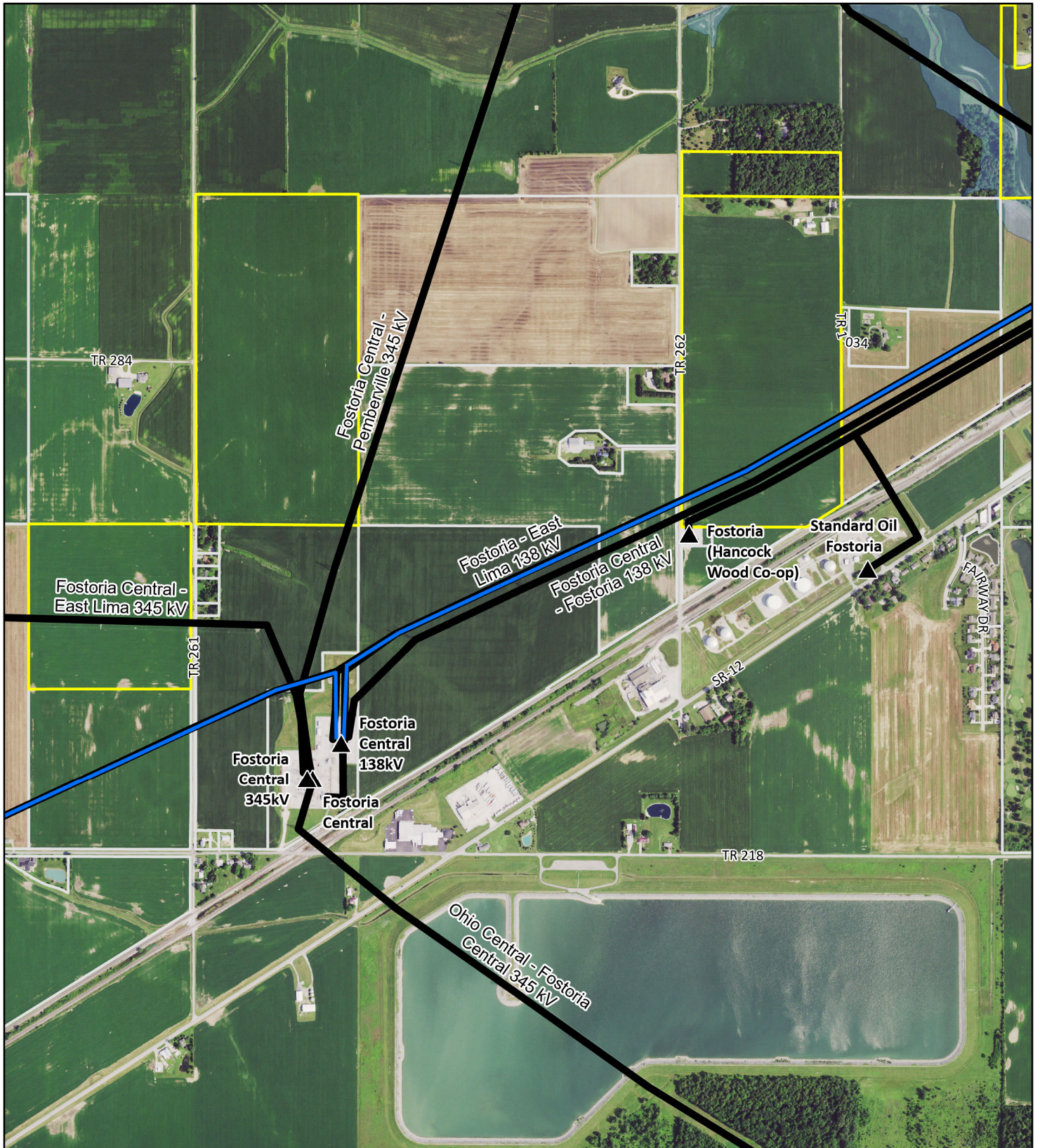


Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

 AEP OHIO TRANSMISSION COMPANY
 ROUNDELL ENERGY

0 500 1,000 1,500 2,000
 Feet



▲ Existing Station	▭ Parcel Boundary
— Fostoria - East Lima 138 kV Transmission Line Rebuild	▭ County Boundary
— Existing Transmission Line	▭ FEMA Regulatory Floodway
— Agricultural District Parcel	▭ FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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State Plane Ohio
 North NAD 83

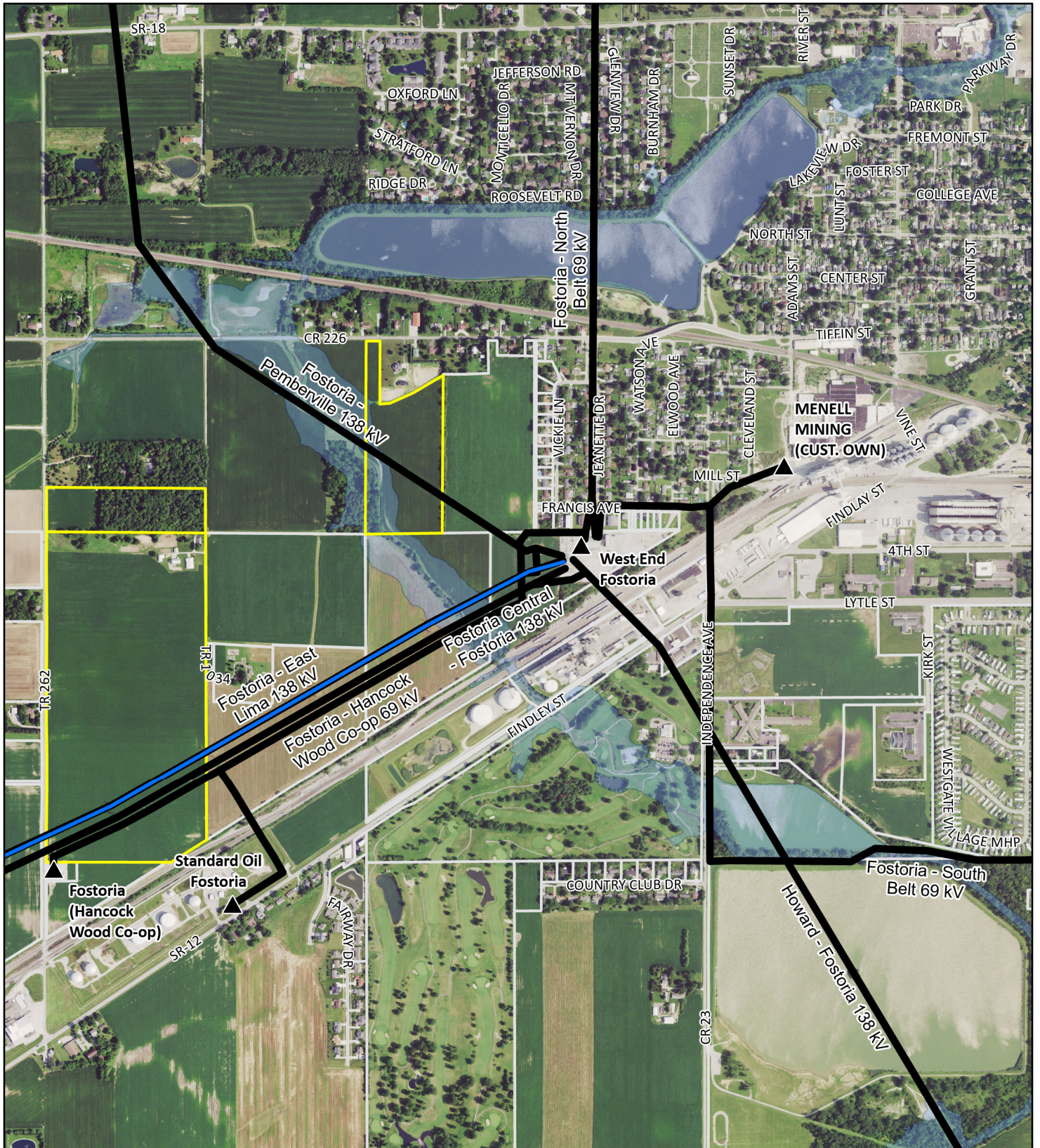
February 02, 2024



Map 2
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Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

0 500 1,000 1,500 2,000
 Feet



	Existing Station		Parcel Boundary
	Fostoria - East Lima 138 kV Transmission Line Rebuild		County Boundary
	Existing Transmission Line		FEMA Regulatory Floodway
	Agricultural District Parcel		FEMA 100-year Floodplain

Sources:
 NAIP Imagery (2021)
 Allen and Hancock County Parcels (2023)
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State Plane Ohio
 North NAD 83

February 02, 2024



Map 2
Aerial Map

Fostoria - East Lima 138 kV
 Transmission Line Rebuild Project
 (East Lima - North Woodcock and
 New Liberty - West End Fostoria)

0 500 1,000 1,500 2,000
 Feet

Appendix B PJM Solution



Need Number: AEP-2021-OH030

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 1/10/2023

Previously presented:

Solution Meeting 08/19/2022

Need Meeting 05/21/2021

Project Driver: Equipment Material/Condition/Performance/Risk

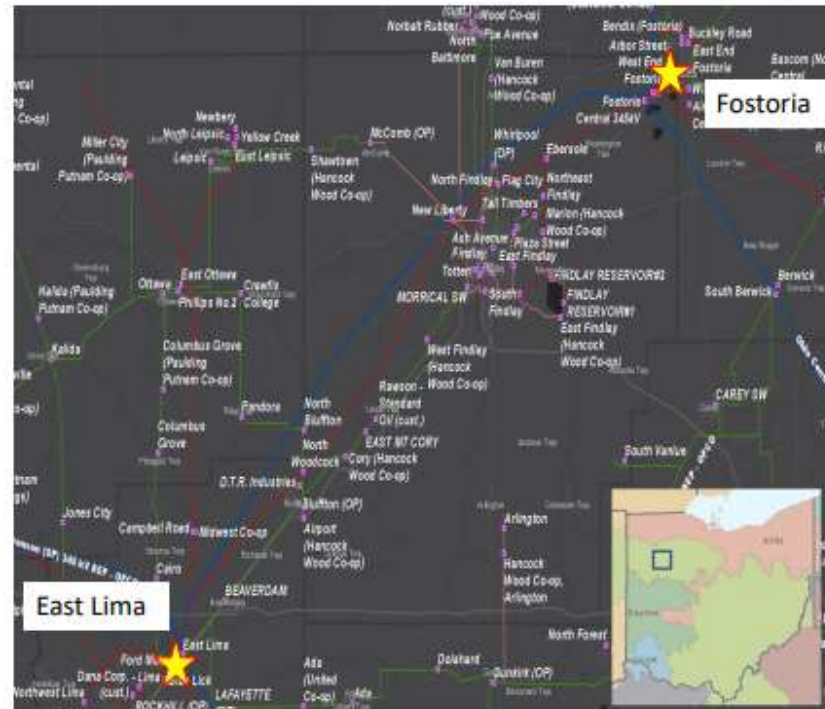
Specific Assumption Reference: AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13), AEP Presentation on Pre-1930s Lines

Problem Statement:

Fostoria – East Lima 138KV

- **Original Construction Date:** 1924
- **Length:** 41.26 miles
- **Total structure count:** 205
- **Original Line Construction Type:** Double circuit steel lattice towers with vertical insulators
- **Conductor Types:** 397,500 CM ACSR 30/7 (Lark) & 336,400 CM ACSR 30/7 (Oriole)
- **Outage History:** Since 2015, there have been 2 permanent outages and 6 momentary outages. The Ebersole – New Liberty Circuit has accounted for 19,640 customer minutes of interruption for 326 distribution customers at the Flag City Substation.
- **Condition Summary:** Currently, there are 44 structures with at least one open condition, which relates to 22% of the structures on this line.

AEP Transmission Zone M-3 Process Findlay, OH





Need Number: AEP-2021-OH030

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 1/10/2023

Problem Statement (contd.):

Additional Information: Multiple issues are starting to emerge on this line indicating accelerated deterioration phase of its life. Structures inspected either aerially or by ground crews showed heavy visible corrosion on conductors and shield wire, surface rust on towers, insulator end fittings and dampers.

Additional info on Insulator & Hardware Corrosion:

- **Section Loss:** The connecting elements including the tower attachment hole and the insulator hook have experienced serious cross-section loss due to corrosion and wear. This loss of metal cross-section significantly reduces the capacity of the connection
- **Corrosion:** The insulator caps and connecting hardware have experienced heavy to complete loss of galvanizing. When the protective galvanized coating is gone or significantly compromised, the bare steel corrodes at an accelerated rate
- **Tower members with corrosion and damage.** Lattice tower structures have little structural redundancy. A failure of one member of the structure will impact the integrity of the structure and may cause the entire tower to collapse.
- **Customer Impact:** This double-circuit line provides significant support to the Findlay area 34.5 kV and 69 kV systems via transformers at North Woodcock, New Liberty, North Findlay, and Ebersole and Flag City. Simultaneous outages at both ends of the double-circuit line would likely lead to a major area-wide outage.
- **Risk:** Significant deterioration results in loss of strength and performance posing a significant risk of failure under conditions the assets should be able to withstand.
 - May cause frequent and extended outages
 - May create significant economic losses
 - May endanger public safety

AEP Transmission Zone M-3 Process Findlay, OH





Need Number: AEP-2021-OHO30

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 1/10/2023

Solution:

- Fostoria - East Lima 138:** The 41.3 mile long line will be rebuilt using double circuit 795 ACSR Drake conductor. OPGW shield wire will be installed. Approximately one mile of line is being considered for greenfield construction to avoid encroachments and ROW challenges. The Boutwell, Flag City and Ebersole stations were installed recently, these line cut-ins will not be rebuilt. **Estimated Cost: \$95.9M (\$2812.1)**
- North Findlay - N Main & North Findlay - Findlay 69kV lines:** The North Findlay - N Main and North Findlay - Findlay 69kV lines will be modified for the Fostoria - East Lima 138kV line crossing. **Estimated Cost: \$0.08M (\$2812.2)**

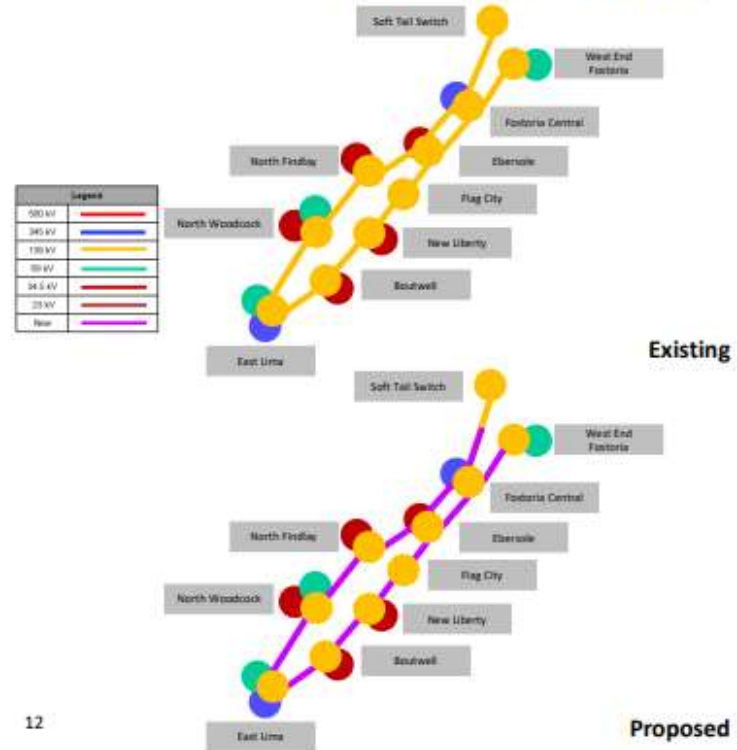
Total Estimated Transmission Cost: \$95.98M

Projected In-Service: 09/15/2026

Supplemental Project ID: s2812.1-2

Project Status: Scoping

AEP Transmission Zone M-3 Process Fostoria - East Lima Rebuild Project



Appendix C Property Agreement Table

Parcel ID	Agreement Type	Easement Obtained
18360004001000	Station/AEP Parcels	N/A
18360004002000	Supplemental Existing Easement	No
18360004002001	Supplemental Existing Easement	No
18360004006001	Supplemental Existing Easement	No
18360004008000	Supplemental Existing Easement	No
Snider Road		
18360003004000	Supplemental Existing Easement	No
18360003003002	Supplemental Existing Easement	No
18360003003000	Supplemental Existing Easement	No
28010002001001	Supplemental Existing Easement	No
28010602003000	Supplemental Existing Easement	No
28010602004000	Supplemental Existing Easement	No
28010602013000	Supplemental Existing Easement	No
28010602012000	Supplemental Existing Easement	No
Hunters Run		
28010603007000	Supplemental Existing Easement	No
28010603006000	Supplemental Existing Easement	No
28010603004000	Supplemental Existing Easement	No
Riley Street		
28010601038000	Supplemental Existing Easement	No
Shannon Street		
28010601049000	Supplemental Existing Easement	No
28010601048000	Supplemental Existing Easement	No
28010601010000	Supplemental Existing Easement	No
28010601009000	Supplemental Existing Easement	No
28010601050000	Supplemental Existing Easement	No
28010601008000	Supplemental Existing Easement	No
28010601051000	Supplemental Existing Easement	No
28010601007001	Supplemental Existing Easement	No
28010601007000	Supplemental Existing Easement	No
28010601001512	Supplemental Existing Easement	No
28010601006000	Supplemental Existing Easement	No
28010601005000	Supplemental Existing Easement	No
28010601004000	Supplemental Existing Easement	No
28010601003000	Supplemental Existing Easement	No
28010601002000	Supplemental Existing Easement	No
28010601001504	Supplemental Existing Easement	No
Bentley Road		
28020801001000	Supplemental Existing Easement	No
28020801002000	Supplemental Existing Easement	No
Richland Drive		
28020801012000	Supplemental Existing Easement	No
28020801015000	Supplemental Existing Easement	No

28020801016000	Supplemental Existing Easement	No
28020801011000	Supplemental Existing Easement	No
28020801010000	Supplemental Existing Easement	No
28020801017000	Supplemental Existing Easement	No
28020001008001	Supplemental Existing Easement	No
28020001007001	Supplemental Existing Easement	No
Augsburger Road		
28020004002000	Supplemental Existing Easement	No
28020003017000	Supplemental Existing Easement	No
28020003002000	Supplemental Existing Easement	No
28020003002007	Supplemental Existing Easement	No
28020003004000	Supplemental Existing Easement	No
Tom Fett Road		
28030004001000	Supplemental Existing Easement	No
Columbus Grove Bluffton Road		
28100001001000	Supplemental Existing Easement	No
28100001002000	Supplemental Existing Easement	No
28100001004000	Supplemental Existing Easement	No
28100001005000	Supplemental Existing Easement	No
28100002003000	Supplemental Existing Easement	No
28100003001000	Supplemental Existing Easement	No
28100003002000	Supplemental Existing Easement	No
Phillips Road		
28090004001000	Supplemental Existing Easement	No
28090004002000	Supplemental Existing Easement	No
Rockport Road		
28160001002000	Supplemental Existing Easement	No
Zurflugh Road		
28160002006000	Supplemental Existing Easement	No
28160002001000	Supplemental Existing Easement	No
28160002006001	Supplemental Existing Easement	No
28160002002000	Supplemental Existing Easement	No
28160002003000	Supplemental Existing Easement	No
28170001001000	Supplemental Existing Easement	No
Lugabill Road		
28170004002000	Supplemental Existing Easement	No
28170003001003	OFFLINE	N/A
28170003001002	Supplemental Existing Easement	No
28170003001000	Supplemental Existing Easement	No
28170003001001	Supplemental Existing Easement	No
Hillville Road		
28200002003000	Supplemental Existing Easement	No
Napoleon Road		
28190001001000	Supplemental Existing Easement	No
28190001003000	Supplemental Existing Easement	No
28190004002001	Supplemental Existing Easement	No
28190003001000	Supplemental Existing Easement	No

28190003002000	Supplemental Existing Easement	No
Cool Road		
27240004004000	Supplemental Existing Easement	No
Hook Waltz Rd E		
27250001002000	Supplemental Existing Easement	No
27250001003001	Supplemental Existing Easement	No
27250002001000	Supplemental Existing Easement	No
27250003001000	Supplemental Existing Easement	No
27250003002000	Supplemental Existing Easement	No
Thayer Road		
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27260004001000	Supplemental Existing Easement	No
27260004004000	Supplemental Existing Easement	No
Lincoln Highway		
27350001004000	Supplemental Existing Easement	No
27350001003000	Supplemental Existing Easement	No
US Highway 30		
27350004001000	Supplemental Existing Easement	No
27350003013000	Supplemental Existing Easement	No
27350004002000	Supplemental Existing Easement	No
E State Road		
37020001013000	Supplemental Existing Easement	No
37020002001000	Supplemental Existing Easement	No
37020002006000	Supplemental Existing Easement	No
Sugar Creek Road		
37020003002001	Supplemental Existing Easement	No
37020003002002	Supplemental Existing Easement	No
37020003002000	Supplemental Existing Easement	No
37110002001000	Supplemental Existing Easement	No
37110002002000	Station/AEP Parcels	N/A
150001025977	Station/AEP Parcels	N/A
150000031650	Supplemental Existing Easement	No
150000031610	Supplemental Existing Easement	No
County Road 236		
150001009951	Supplemental Existing Easement	No
150001025874	Supplemental Existing Easement	No
150001025887	Supplemental Existing Easement	No
150001025886	Supplemental Existing Easement	No
150001009619	Supplemental Existing Easement	No
County Road 18		
150001004475	Supplemental Existing Easement	No
150001004476	Supplemental Existing Easement	No
150001004474	Supplemental Existing Easement	No
150001003172	Supplemental Existing Easement	Yes
020001029406	Supplemental Existing Easement	No
020001028973	Supplemental Existing Easement	No
020001030161	Supplemental Existing Easement	No

020000005090	Supplemental Existing Easement	No
Township Road 230		
020000005030	Supplemental Existing Easement	No
020000005070	Supplemental Existing Easement	No
020000004840	Supplemental Existing Easement	No
020001011628	Supplemental Existing Easement	No
020001002940	Supplemental Existing Easement	No
020001004955	Supplemental Existing Easement	No
020001030954	Supplemental Existing Easement	Yes
Distribution Drive		
020001030613	Supplemental Existing Easement	Yes
020001030953	Station/AEP Parcels	N/A
020001013860	Supplemental Existing Easement	No
020001013872	Station/AEP Parcels	N/A
020001013987	Supplemental Existing Easement	No
County Road 99		
020001013856	Supplemental Existing Easement	No
Conrail		
020001013858	Supplemental Existing Easement	No
020001016184	Supplemental Existing Easement	No
630001021803	Supplemental Existing Easement	No
North Mail Street		
630001006677	Supplemental Existing Easement	Yes
630001006678	Supplemental Existing Easement	No
230001033244	Supplemental Existing Easement	Yes
630001017367	Supplemental Existing Easement	No
Ventura Drive		
230001028822	Supplemental Existing Easement	Yes
230001028821	Supplemental Existing Easement	Yes
230001030065	Supplemental Existing Easement	No
630001025318	Supplemental Existing Easement	No
Marathon Way		
230001032116	Supplemental Existing Easement	No
Speedway Dr		
630001018988	Supplemental Existing Easement	Yes
630001018989	Supplemental Existing Easement	No
Interstate 75		
230001031528	Supplemental Existing Easement	Yes
690001021914	Supplemental Existing Easement	No
020001025344	Supplemental Existing Easement	Yes
020001025148	Supplemental Existing Easement	No
280000055250	Supplemental Existing Easement	No
280000055330	Supplemental Existing Easement	No
280000062710	Supplemental Existing Easement	No
280001005685	Supplemental Existing Easement	Yes
280001005683	Supplemental Existing Easement	No
280000062680	Supplemental Existing Easement	No

Gleneagle Drive		
280000063200	Supplemental Existing Easement	Yes
Pepper Pike		
280000063210	Supplemental Existing Easement	No
280001004799	Supplemental Existing Easement	No
280001006314	Supplemental Existing Easement	No
280001006352	Supplemental Existing Easement	No
Saddlebrook Drive		
280001006354	Supplemental Existing Easement	No
280001006351	Supplemental Existing Easement	No
280001006350	Supplemental Existing Easement	Yes
280001006353	Supplemental Existing Easement	Yes
Innisbrook Drive		
Brook Lawn Drive		
280001006336	Supplemental Existing Easement	No
280001011270	Supplemental Existing Easement	No
280001017414	Supplemental Existing Easement	No
280001011271	Supplemental Existing Easement	Yes
280001017413	Supplemental Existing Easement	No
Turnberry Drive		
280001017419	Supplemental Existing Easement	No
280001017420	Supplemental Existing Easement	No
280001017421	Supplemental Existing Easement	No
280000055390	Supplemental Existing Easement	No
280000055380	Supplemental Existing Easement	No
280001017433	Supplemental Existing Easement	No
280000055520	Supplemental Existing Easement	No
280001017434	Supplemental Existing Easement	No
280000055450	Supplemental Existing Easement	No
County Road 95		
280001025739	Supplemental Existing Easement	No
280001025740	Supplemental Existing Easement	No
280000055630	Supplemental Existing Easement	No
280001016686	Supplemental Existing Easement	No
280001002011	Supplemental Existing Easement	No
280000055480	Supplemental Existing Easement	No
County Road 140		
280001028413	Supplemental Existing Easement	No
280001029878	Station/AEP Parcels	N/A
280001001199	Station/AEP Parcels	N/A
280001001200	Station/AEP Parcels	N/A
510001005521	Station/AEP Parcels	N/A
510001005519	Supplemental Existing Easement	No
Township Road 261		
510000129831	Supplemental Existing Easement	No
510000129840	Supplemental Existing Easement	No
510001022545	Supplemental Existing Easement	No

Township Road 218		
510001009373	Supplemental Existing Easement	No
510001011771	Supplemental Existing Easement	Yes
510001011772	Supplemental Existing Easement	Yes
510001011774	Supplemental Existing Easement	No
County Road 257		
510001011775	Supplemental Existing Easement	Yes
510001031876	Supplemental Existing Easement	No
510001031877	Supplemental Existing Easement	No
510001004339	Supplemental Existing Easement	Yes
Township Road 256		
510000130840	Supplemental Existing Easement	No
510000130870	Supplemental Existing Easement	No
510001014647	Supplemental Existing Easement	Yes
Township Road 254		
510001015422	Supplemental Existing Easement	Yes
510001011867	Supplemental Existing Easement	No
County Road 109		
510001027928	Supplemental Existing Easement	Yes
510001012830	Supplemental Existing Easement	No
510001012831	Supplemental Existing Easement	No
510001019857	Supplemental Existing Easement	No
Township Road 243		
130001017329	Supplemental Existing Easement	No
Township Road 247		
130001032912	Supplemental Existing Easement	No
130001032913	Supplemental Existing Easement	No
130001013991	Supplemental Existing Easement	No
130000028020	Supplemental Existing Easement	No
130001020722	Supplemental Existing Easement	No
Norfolk Southern RR		
130001019515	Supplemental Existing Easement	No
130001019514	Supplemental Existing Easement	Yes
County Road 216		
130001029769	Supplemental Existing Easement	No
130001029770	Supplemental Existing Easement	No
Township Road 238		
150001003829	Supplemental Existing Easement	No
150001003179	Supplemental Existing Easement	No
150001003950	Supplemental Existing Easement	No
150001003830	Supplemental Existing Easement	Yes
150001025977	Station/AEP Parcels	N/A
510001001210	Station/AEP Parcels	N/A
510001006480	Supplemental Existing Easement	No
510000130170	Supplemental Existing Easement	No
510001029078	Supplemental Existing Easement	No
510000129950	Supplemental Existing Easement	No

Township Road 262

510001032244	Supplemental Existing Easement	No
510001011715	Supplemental Existing Easement	No
510001005519	Supplemental Existing Easement	No
510001005521	Station/AEP Parcels	N/A

Appendix D Agency Coordination Letters



In reply, refer to
2022-ALL-55344

August 8, 2022

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: East Lima-Woodcock 138kV Transmission Line Rebuild Project, Richland, Monroe, and Bath Townships, Allen County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received July 15, 2022 regarding the proposed East Lima-Woodcock 138kV Transmission Line Rebuild Project, Richland, Monroe, and Bath Townships, Allen County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for the 18.44 km (11.46 mi) East Lima-Woodcock 138kV Transmission Line Rebuild Project in Richland, Monroe, and Bath Townships, Allen County, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2022).

A literature review, visual inspection, surface collection, and shovel test probe was completed as part of the investigations. No previously identified archaeological sites are located within the project area. Six (6) new archaeological sites were identified during survey, Ohio Archaeological Inventory (OAI) #33AL0262-33AL0267. The sites are recommended not eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with this recommendation and no additional archaeological investigation is needed.

The following comments pertain to the *History/Architecture Investigations for the 18.44 km (11.46 mi) East Lima-Woodcock 138kV Transmission Line Rebuild Project in Richland, Monroe, and Bath Townships, Allen County, Ohio* by Scott McIntosh (Weller & Associates, Inc. 2022).

A literature review and field survey were completed as part of the investigations. A total of one hundred and six (106) extant properties fifty years of age or older were identified within the Area of Potential Effects (APE). It is Weller's recommendation that these properties are not eligible for listing in the NRHP. Our office agrees with Weller's recommendations regarding eligibility.

Based on the information provided, we agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. Our office requests Weller & Associates, Inc. complete the OAI forms for OAI#33AL0262-33AL0267 as soon as possible. Please notify our office when that form has been completed. If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorrocks@ohiohistory.org, or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1094163-1094164



In reply, refer to
2022-HAN-55324

August 8, 2022

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: New Liberty-Ebersole 138kV Rebuild Project, Liberty, Allen, and Cass Townships, Hancock County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received July 13, 2022 regarding the proposed New Liberty-Ebersole 138kV Rebuild Project, Liberty, Allen, and Cass Townships, Hancock County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Investigations for the 10.6 km (6.59 mi) New Liberty-Ebersole 138kV Rebuild Project in Liberty, Allen, and Cass Townships, Hancock County, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2022).

A literature review, visual inspection, surface collection, and shovel test probe was completed as part of the investigations. One (1) previously identified archaeological site is located within the project area, Ohio Archaeological Inventory (OAI) #33HK0790. The site was not reidentified during survey and was previously determined not eligible for listing in the National Register of Historic Places (NRHP). Two (2) new archaeological site were identified during survey, OAI#33HK1049 and 33HK1050. The sites are recommended not eligible for listing in the NRHP. Our office agrees with this recommendation and no additional archeological investigation is needed.

The following comments pertain to the *History/Architecture Investigations for the 10.6 km (6.59 mi) New Liberty-Ebersole 138kV Rebuild Project in Liberty, Allen, and Cass Townships, Hancock County, Ohio* by Scott McIntosh (Weller & Associates, Inc. 2022).

A literature review and field survey were completed as part of the investigations. A total of thirty-five (35) extant properties fifty years of age or older were identified within the Area of Potential Effects (APE). It is Weller's recommendation that these properties are not eligible for listing in the NRHP. Our office agrees with Weller's recommendations regarding eligibility.

Based on the information provided, we agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. Our office requests Weller & Associates, Inc. complete the OAI forms for OAI#33HK1049 and 33HK1050 as soon as possible. Please notify our office when that form have been completed. If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorrocks@ohiohistory.org, or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1094137-1094138



In reply, refer to
2022-HAN-55282

August 1, 2022

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: Ebersole-Fostoria Central 138kV Rebuild Project, Washington and Cass Township, Hancock County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received July 7, 2022 regarding the proposed Ebersole-Fostoria Central 138kV Rebuild Project, Washington and Cass Township, Hancock County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Survey for the 11.04 km (6.86 mi) Ebersole-Fostoria Central 138kV Rebuild Project in Washington and Cass Township, Hancock County, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2022).

A literature review, visual inspection, surface collection, and shovel test probe was completed as part of the investigations. One (1) previously identified archaeological sites is located within the project area, Ohio Archaeological Inventory (OAI) #33HK0957. The site was not reidentified during survey and was previously determined not eligible for listing in the National Register of Historic Places (NRHP). One (1) new archaeological site was identified during survey, OAI#33HK1051 was identified during survey. The archaeological sites is not recommended eligible for listing in the NRHP. Our office agrees with this recommendation and no additional archeological investigation is needed.

The following comments pertain to the *History/Architecture Investigations for the 11.04 km (6.86 mi) Ebersole-Fostoria Central 138kV Rebuild Project in Washington and Cass Township, Hancock County, Ohio* by Scott McIntosh (Weller & Associates, Inc. 2022).

A literature review and field survey were completed as part of the investigations. A total of thirty-one (31) extant properties fifty years of age or older were identified within the Area of Potential Effects (APE). It is Weller's recommendation that these properties are not eligible for listing in the NRHP. Our office agrees with Weller's recommendations regarding eligibility.

Based on the information provided, we agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. Our office requests Weller & Associates, Inc. complete the OAI forms for OAI#33HK1051 as soon as possible. Please notify our office when that form have been completed. If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorrocks@ohiohistory.org, or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1094053-1094054



In reply, refer to
2022-HAN-55275

August 1, 2022

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: Fostoria Central 138kV Extension Project, Washington Township, Hancock County, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received July 5, 2022 regarding the proposed Fostoria Central 138kV Extension Project, Washington Township, Hancock County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to the *Phase I Archaeological Survey for the 2.37 km (1.47 mi) Fostoria Central 138kV Extension Project in Washington Township, Hancock County, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2022).

A literature review, visual inspection, and surface collection was completed as part of the investigations. No previously identified archaeological sites are located within the project area and no new archaeological sites were identified during survey. Our office agrees no additional archeological investigation is needed.

The following comments pertain to the *History/Architecture Investigations for the 2.37 km (1.47 mi) Fostoria Central 138kV Extension Project in Washington Township, Hancock County, Ohio* by Scott McIntosh (Weller & Associates, Inc. 2022).

A literature review and field survey were completed as part of the investigations. A total of twenty-eight (28) extant properties fifty years of age or older were identified within the Area of Potential Effects (APE). It is Weller's recommendation that these properties are not eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with Weller's recommendations regarding eligibility.

Based on the information provided, we agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorrocks@ohiohistory.org, or Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1094037-1094038



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

August 8, 2022

Tyler Russell
Environmental Solutions & Innovations, Inc.
4300 Lynn Rd, Suite 205
Ravenna, OH 44266

Re: 22-0704; AEP Ohio Transmission Company, Inc. (AEP) - Fostoria – East Lima Line Rebuild Project

Project: The proposed project involves rebuilding the existing Fostoria - East Lima transmission line.

Location: The proposed project is located in Bath, Monroe, and Richland Townships, Allen County, and Union, Blanchard, Allen, Cass, and Washington Townships, Hancock County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following data at or within one mile of the project area:

Rock Elm (*Ulmus thomasii*), P
Least Darter (*Etheostoma microperca*), SC
Elktoe (*Alasmidonta marginata*), SC
Creek Heelsplitter (*Lasmigona compressa*), SC
Kidneyshell (*Ptychobranhus fasciolaris*), SC
Salamander Mussel (*Simpsonaias ambigua*), T
Deertoe (*Truncilla truncata*), SC

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened.

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "[OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING](#)". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "[RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES](#)." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species.

Federally Endangered

clubshell (*Pleurobema clava*)

rayed bean (*Villosa fabalis*)

State Endangered

purple lilliput (*Toxolasma lividum*)

State Threatened

pondhorn (*Uniomereus tetralasmus*)

Salamander Mussel (*Simpsonaias ambigua*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the western banded killifish (*Fundulus diaphanus menona*), a state endangered fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet meadows and other wetlands. The DOW recommends that an approved herpetologist conducts a habitat suitability survey to determine if suitable habitat is present within the project area. If suitable habitat is determined to be present; the DOW recommends that a presence/absence survey be conducted, or an avoidance/minimization plan be developed and implemented by the approved herpetologist. A list of [approved herpetologists](#) has been provided for your convenience.

The project is within the range of the black-crowned night-heron (*Nycticorax nycticorax*), a state-threatened bird. Night-herons are so named because they are nocturnal, conducting most of their foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day. Night herons are migratory and are typically found in Ohio from April 1 through December 1 but can be found in more urbanized areas with reliable food sources year-round. Black-crowned night-herons primarily forage in wetlands and other shallow aquatic habitats, and roost in trees nearby. These night-herons nest in small trees, saplings, shrubs, or sometimes on the ground, near bodies of water and wetlands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator

Tyler Russell

From: Ohio, FW3 <ohio@fws.gov>
Sent: Wednesday, July 27, 2022 9:30 AM
To: Tyler Russell
Cc: nathan.reardon@dnr.state.oh.us; Wyza, Eileen; Scott Denham; Cory Kwolek; Grant S Stuller
Subject: AEP Fostoria – East Lima Rebuild Project in Hancock County, Ohio

CAUTION: This email originated from outside of our organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe!



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



Project Code: 2022-0058530

Dear Mr. Russell,

The U.S Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥ 3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we

recommend removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <https://ecos.fws.gov/ecp/species/9045>), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present. If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice Ashfield". The signature is fluid and cursive, with a large initial "P" and "A".

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW

Appendix E Wetland Delineation Report

ECOLOGICAL SURVEY REPORT
FOSTORIA – EAST LIMA 138KV TRANSMISSION REBUILD PROJECT
BATH, MONROE, RICHLAND, UNION, BLANCHARD, LIBERTY, ALLEN,
CASS, AND WASHINGTON TOWNSHIPS
ALLEN AND HANCOCK COUNTIES, OHIO

23 August 2022

Prepared for:



BOUNDLESS ENERGY™
American Electric Power
8500 Smith's Mill Road
New Albany, OH 43054

Prepared by:



Environmental Solutions & Innovations, Inc.

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Ravenna, OH • Indianapolis, IN • Orlando, FL • Springfield, MO • Pittsburgh, PA • Teays Valley, WV

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- Appendix G: Site Photos
- Appendix H: Wetland and Stream Datasheets

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1.0 Introduction

American Electric Power (AEP) retained Environmental Solutions & Innovations, Inc. (ESI) to perform an ecological survey for the Fostoria – East Lima 138 kV Transmission Rebuild Project in Bath, Monroe, Richland, Union, Blanchard, Liberty, Allen, Cass, and Washington Townships in Allen and Hancock counties, Ohio within the project's proposed Area of Investigation (AOI; Appendix A, Figures 1 and 2). ESI completed a field review of the AOI from 29 June through 5 July 2022. This report outlines review of published resource materials, existing site conditions, agency coordination, and results of field investigation.

2.0 Methods

2.1 Desktop Evaluation

Prior to visiting the site, available topographic, aerial, soils, flood, and National Wetlands Inventory (NWI) mapping is reviewed to determine onsite areas that may contain aquatic resources. State stream designations, navigability, and other criteria that would determine agency jurisdiction are also reviewed.

2.2 Threatened and Endangered Species

To assist with Endangered Species Act (ESA), Bald and Golden Eagle Protection Act (BGEPA), and Migratory Bird Treaty Act (MBTA) compliance, a project review was requested, and a response was received 27 July 2022 from U.S. Fish and Wildlife Service (USFWS) Ohio Field Office (Appendix B). To identify potential conflicts with state-listed species and appropriately complete Ohio Rapid Assessment Methods (ORAMs), a request was submitted to Ohio Department of Natural Resources (ODNR) and a response was received on 8 August 2022 (Appendix B).

2.3 Aquatic Resource Delineations

Wetland delineation procedures follow the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region ERDC/EL TR-10-16 Version 2.0 (USACE 2010), and the 1987 Corps of Engineers Wetland Delineation Manual (USACE 1987). The federally regulated Ordinary High Water Mark (OHWM) of streams is delineated using the USACE Regulatory Guidance Letter 05-05 – Guidance on Ordinary High Water Mark Identification. Each stream is categorized in regard to its flow regime as perennial, intermittent, or ephemeral, as defined by the USACE. Delineated aquatic resources are classified according to the Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al. 1979). Each wetland



identified is evaluated consistent with the Ohio Rapid Assessment Method (ORAM, Version 5.0), developed by the Ohio Environmental Protection Agency (OEPA). Streams with drainage areas less than one square mile are evaluated using the Field evaluation manual for Ohio's primary headwater habitat streams (OEPA 2020). Aquatic resource boundaries and sample points are surveyed using a GPS with sub-meter accuracy.

3.0 Results

3.1 Desktop Evaluation

3.1.1 Topography and Drainage

The project appears on the Cairo, Beaverdam, Bluffton, Rawson, McComb, Findlay, Arcadia, and Fostoria Ohio U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps (Appendix A, Figure 1). The AOI consists of flat agriculture and scattered woodlots with elevations ranging from approximately 755 feet to 870 feet. The site drains to the Blanchard River and South Branch Portage River.

3.1.2 Soil Survey

The Natural Resources Conservation Service (NRCS) maps 54 soil series considered hydric or partially hydric within the AOI. The NRCS soil map and hydric soils list is provided in Appendix C.

3.1.3 National Wetlands Inventory

Fifty-four NWI mapped resources were identified within the AOI. Note that NWI maps are derived from aerial photo interpretation and are suitable for general planning purposes only; they typically do not show all the wetland or watercourse resources within any given area. All areas were field reviewed. A table summarizing mapped NWI resources within the AOI is provided in Appendix D.

3.1.4 Aerial Imagery

Aerial mapping from 1984 through 2021 shows the site as dominated by agricultural fields and urban/suburban areas. Aerial representation of the site is provided in Appendix A, Figure 2.

3.2 Threatened and Endangered Species

Suitable habitat exists within the AOI for state and federal listed bat species including the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), little brown bat (*Myotis lucifugus*), and tricolored bat (*Perimyotis subflavus*) with agency-recommended tree clearing dates of 1 October to 31 March, if required. A desktop



assessment for features potentially suitable as bat hibernacula revealed no active or historic mining sites within 3 miles of the Project. Portal searches within the Project's AOI were concurrently completed with wetland and stream delineations, and no features potentially suitable for hibernating bats were documented. If trees within the project area require removal, the ODNR-Division of Wildlife (DOW) recommends cutting from 1 October through 31 March and, if possible, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, and trees with diameter at breast height (DBH) \geq 20 inches. If trees within the project area require cutting during summer months, the ODNR-DOW recommends completing a mist net survey or acoustic survey from 1 June through 15 August prior to any cutting.

The project is within the range of the western banded killifish (*Fundulus diaphanus menona*), a state endangered fish. Based on the project's location and no in-water work in a perennial stream is proposed, the project is not likely to impact western banded killifish.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species that prefers wet meadows and other wetlands. Based on the project's location, the type of habitat within the project area, and the work proposed, the project is not likely to impact Kirtland's snake.

The project is within the range of the black-crowned night-heron (*Nycticora nycticorax*), a state threatened bird. Night-herons are so named because they are nocturnal, conducting most foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day. Night herons are migratory and are typically found in Ohio from 1 April through 1 December but can be found in more urbanized areas with reliable food sources year-round. Black-crowned night-herons primarily forage in wetlands and other shallow aquatic habitats, and roost in trees nearby. Night-herons nest in small trees, saplings, shrubs, or sometimes on the ground, near bodies of water and wetlands. If this type of habitat is potentially impacted by project activities, ODNR-DOW recommends avoiding construction during the species' nesting period of 1 May through 31 July. If habitat is not impacted, the project is not likely to impact black-crowned night-heron.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird that prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat is potentially impacted, ODNR-DOW recommends avoiding construction during the species' nesting period of 1 May through 31 July. If habitat is not impacted, the project is not likely to impact least bittern.

The project is within the range of the northern harrier (*Circus hudsonius*), a state endangered bird and a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest

in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat is potentially impacted, ODNR-DOW recommends avoiding construction during the species' nesting period of 15 April through 31 July. If habitat is not impacted, the project is not likely to impact northern harrier.

To reduce impacts to indigenous aquatic species and habitat, the ODNR-DOW recommends avoiding in-water work in perennial streams from 15 April to 30 June. Furthermore, if in-stream work is anticipated in streams considered suitable for freshwater mussels, the ODNR-DOW recommends completion of a mussel survey in the project area by a professional malacologist. A summary table of rare, threatened, and endangered species potentially occurring within the AOI is provided in Appendix E.

3.3 Aquatic Resource Delineations

Forty wetlands (including one wetland complex), 29 stream segments, one ditch segment, and six ponds were identified and delineated within the AOI and are summarized in Appendix F. Representative photographs of aquatic resources are provided in Appendix G. Field data sheets for wetland and upland sample points, ORAM, and HHEI forms are provided in Appendix H. The aquatic resource delineation map depicting resource locations is provided in Appendix A, Figure 2.

4.0 Conclusion

Desktop review and field investigations completed by ESI from 29 June through 5 July 2022 identified forty wetlands (including one wetland complex), 29 stream segments, one ditch segment, and six ponds within the AOI (Appendix A, Figure 2). Temporary or permanent impacts to these resources may require permits from the USACE and or OEPA.

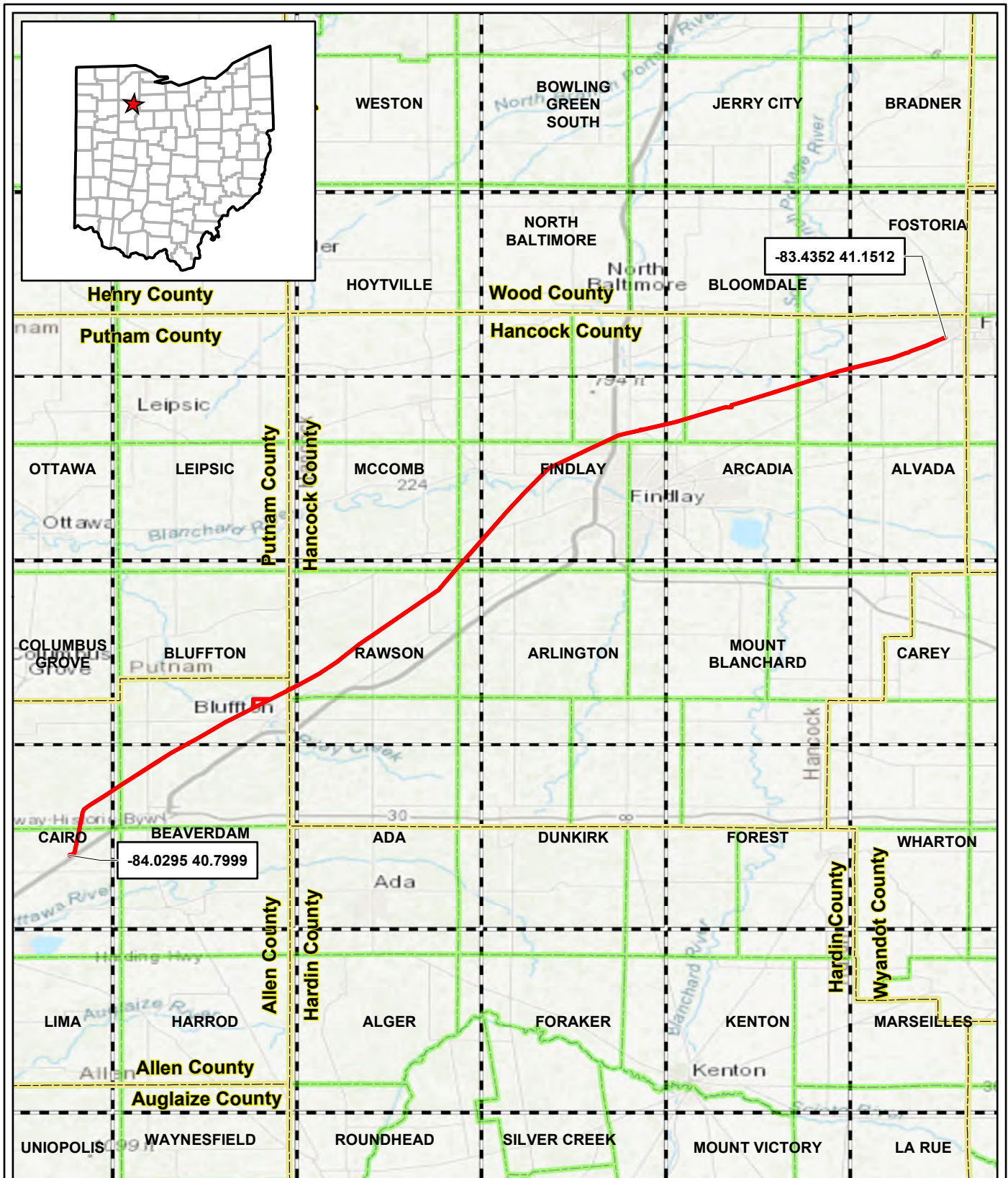
ODNR and USFWS recommend seasonal tree clearing to avoid impacts to state and federally listed bat species. ODNR-DOW provided recommendations to avoid impacts to state-listed fish and mussel species. If construction cannot adhere to seasonal tree clearing dates or requires in-water work, additional coordination with the agencies and/or surveys may be needed.

5.0 Literature Cited

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- USACE. 1987. Corps of Engineers Wetlands Delineation Manual. Final Report. Wetlands Research Program Technical Report Y-87-1 (on-line edition), Waterways Experiment Station, Environmental Laboratory, Vicksburg, Mississippi. 143 pp.
- USACE. 2010. Regional supplement to the Corps of Engineers wetland delineation manual: Midwest Region (Version 2.0). ERDC/EL TR-10-16, U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi. 154 pp.

**APPENDIX A
FIGURES**





- Township Boundary
- County Boundary
- Area of Investigation (AOI)
- USGS 7.5-minute Quad Boundary

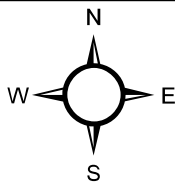


Figure 1. Location of the AEP Fostoria - East Lima 138kV Transmission Rebuild in Allen and Hancock Counties, Ohio.

Project No.
1882

0 5 10
Miles
Base Map: USGS Topographic Map



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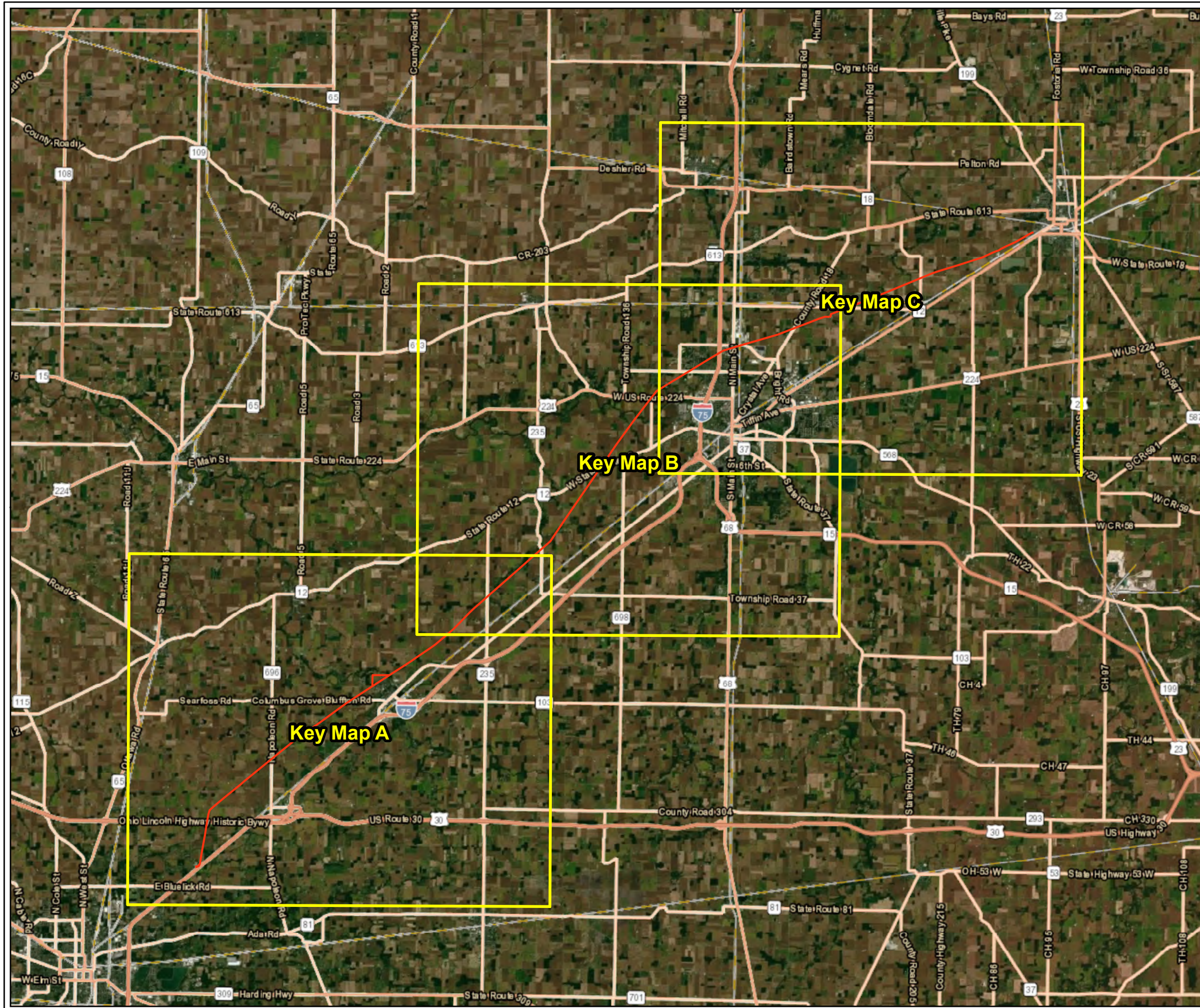
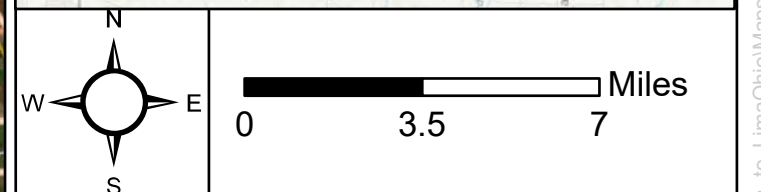
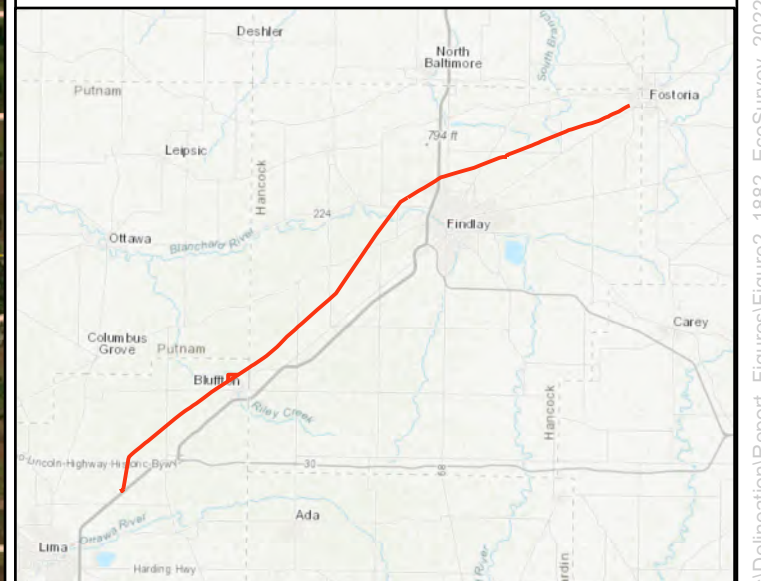


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

Overview Map

- Key Map
- Project Centerline



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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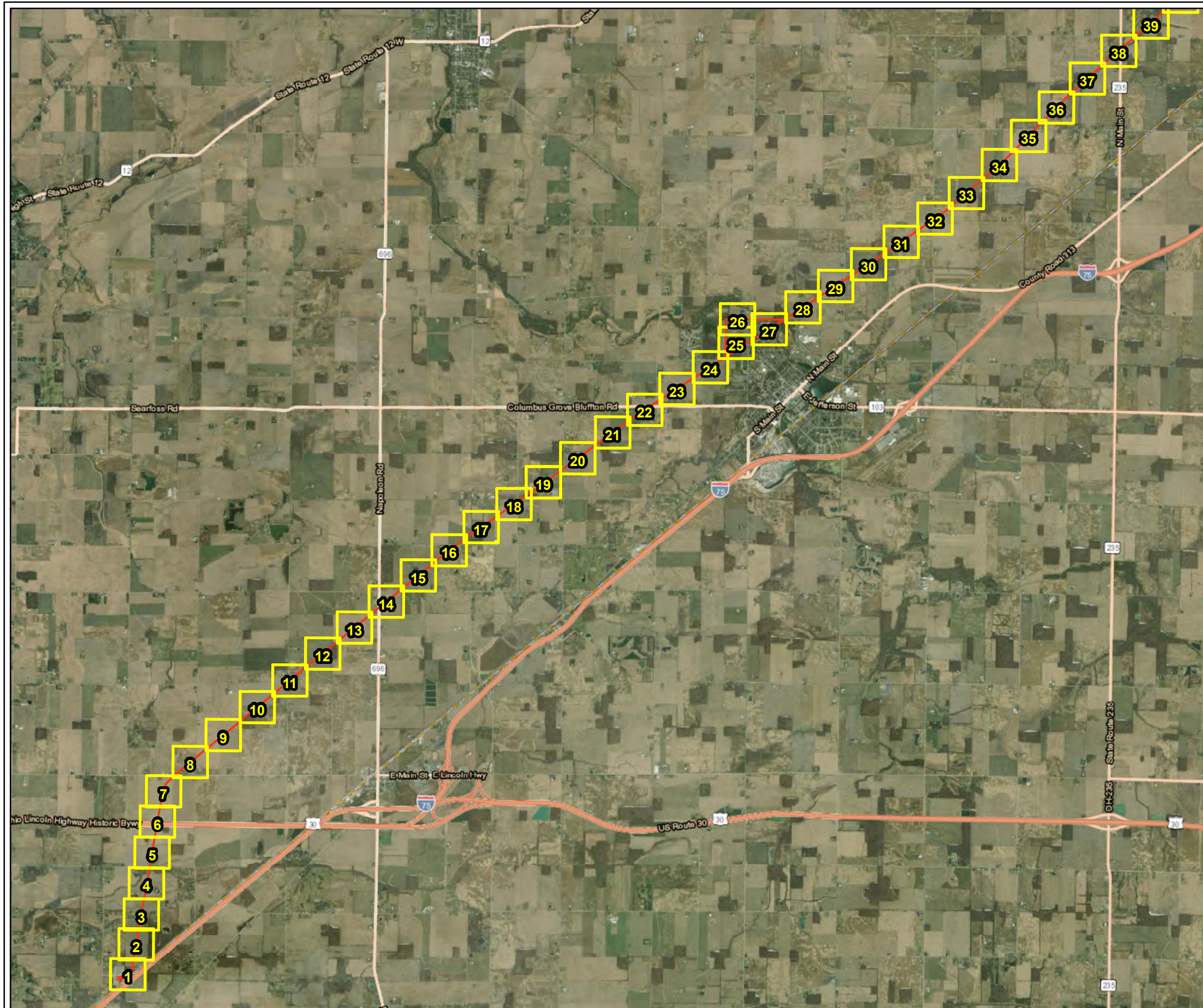
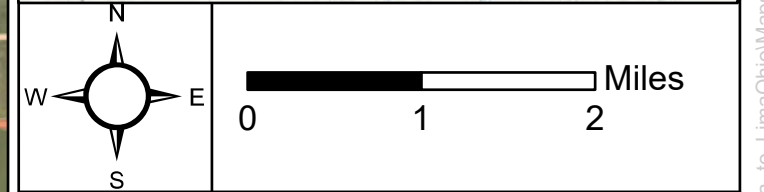
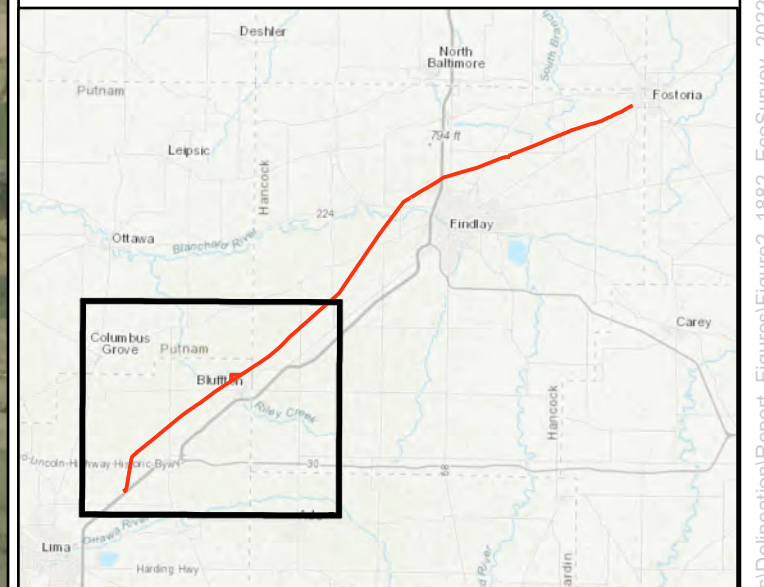


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

Key Map A

- Area Detailed on Subsequent Maps 1 through 39
- Project Centerline



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 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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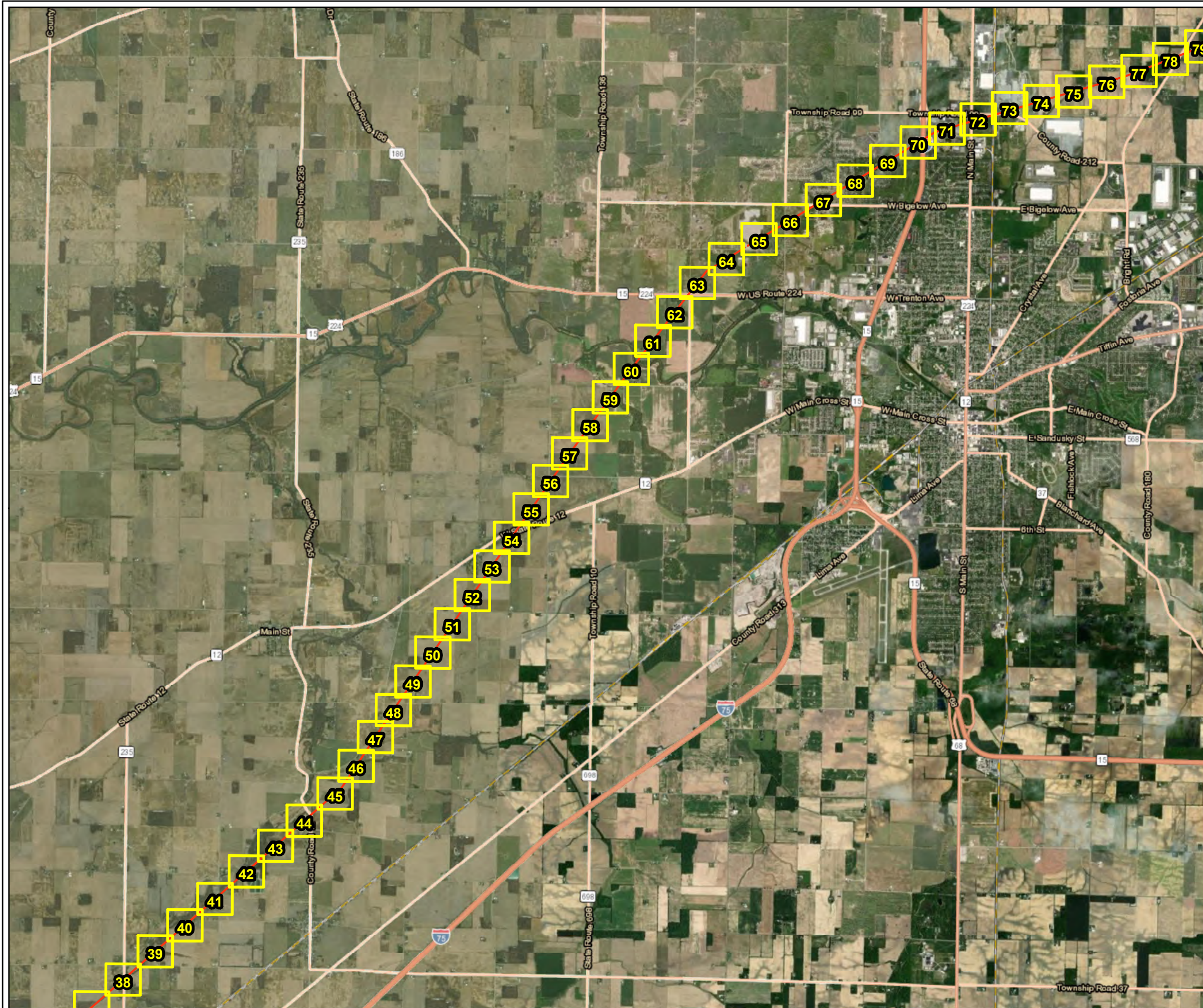
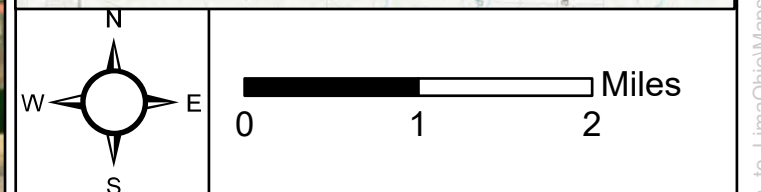
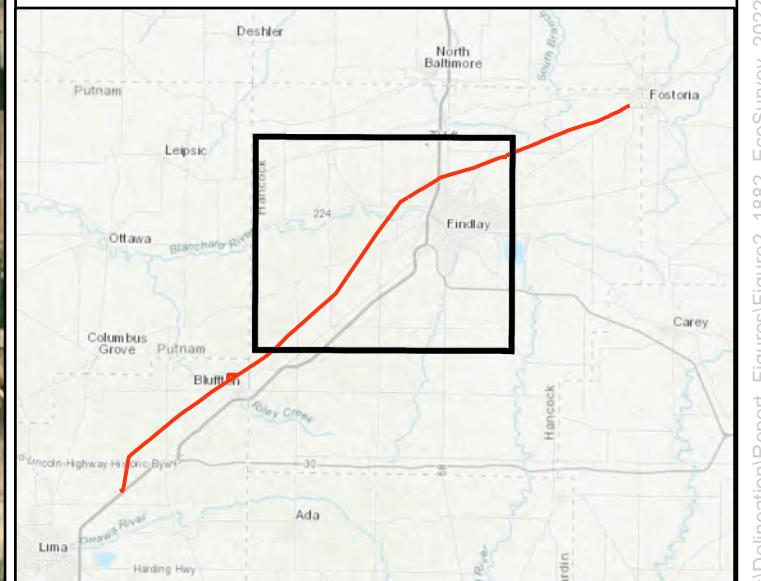


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

Key Map B

- Area Detailed on Subsequent Maps 38 through 79
- Project Centerline



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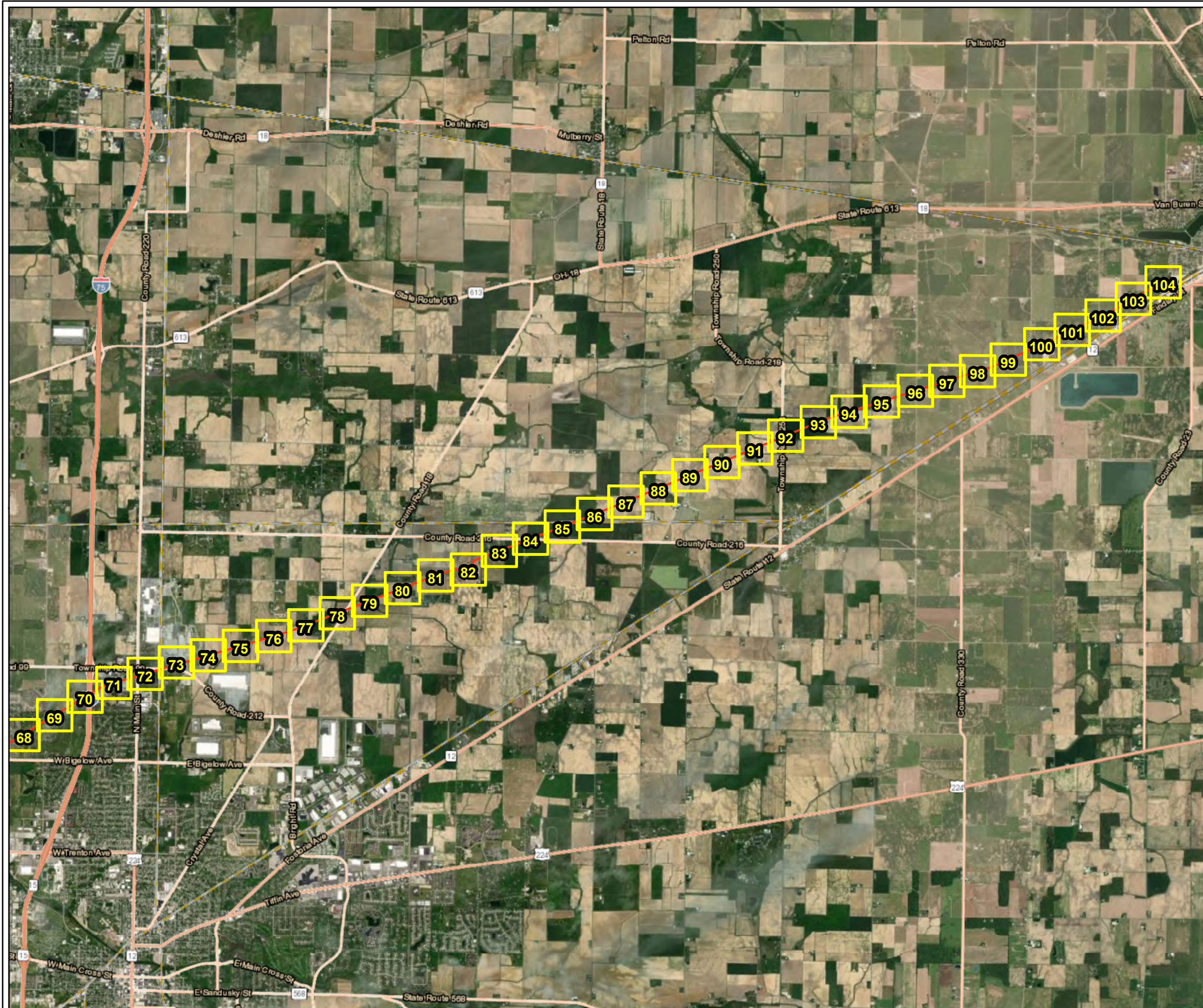
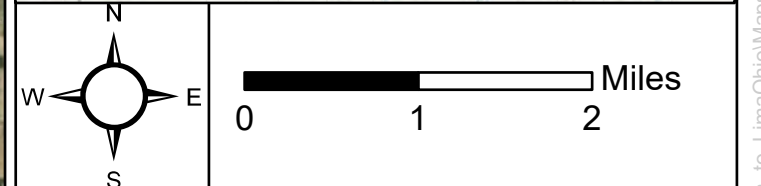


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

Key Map C

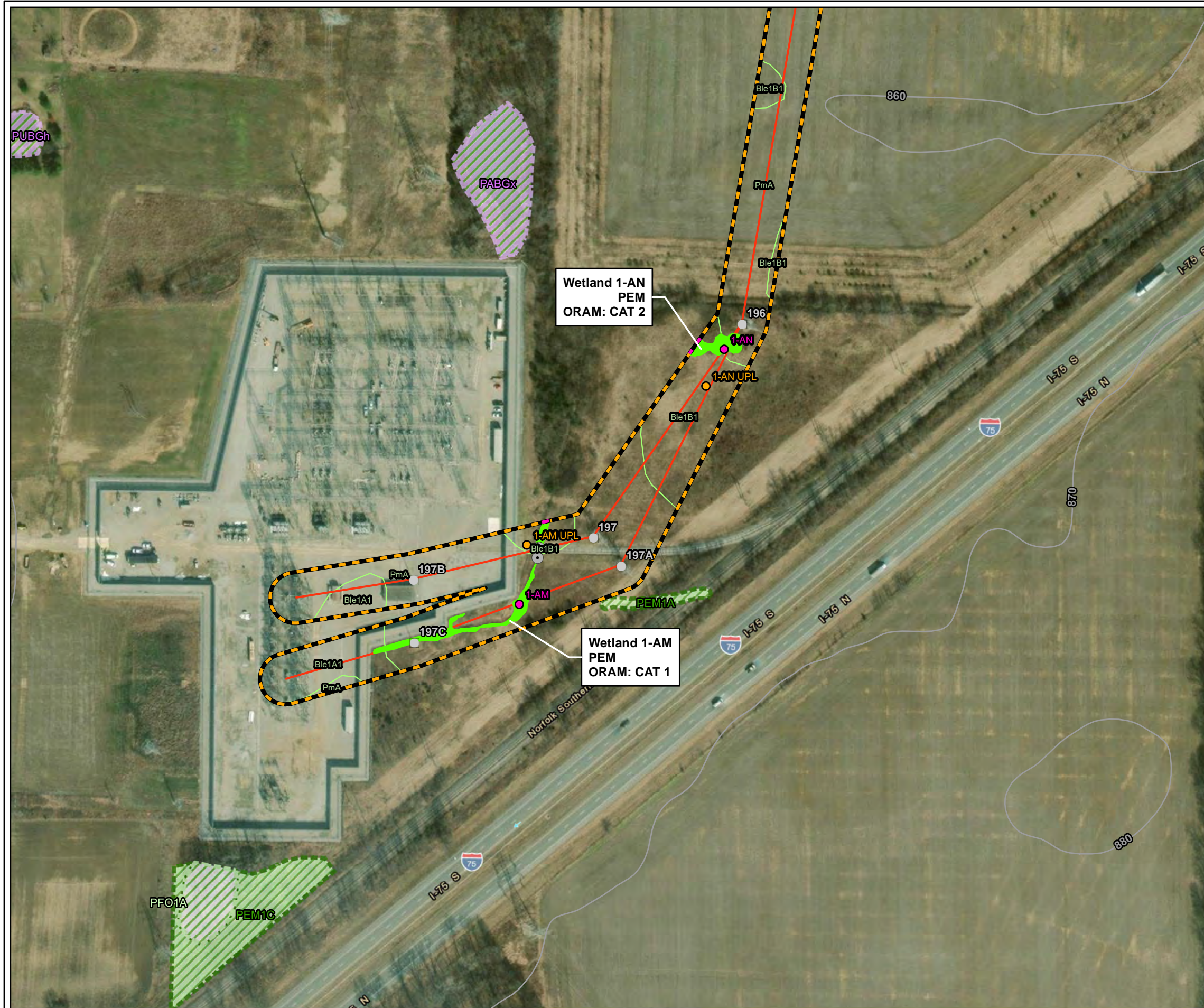
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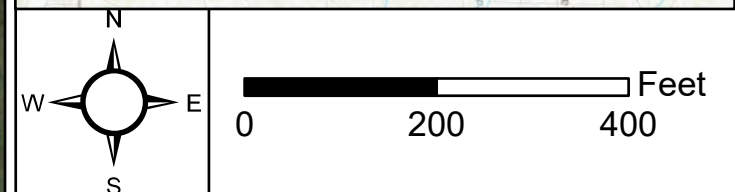
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Sample Point**
- Upland
- Wetland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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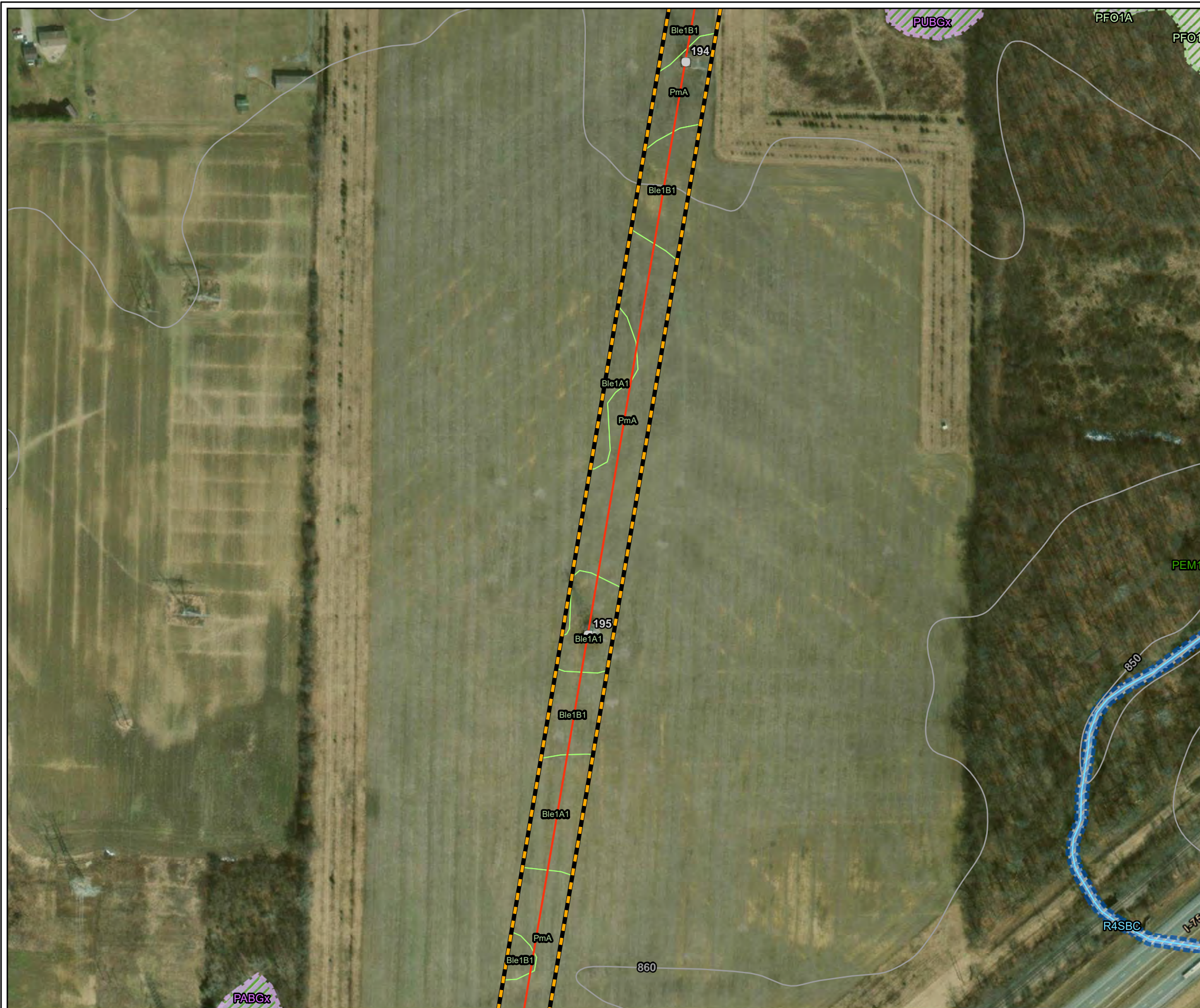
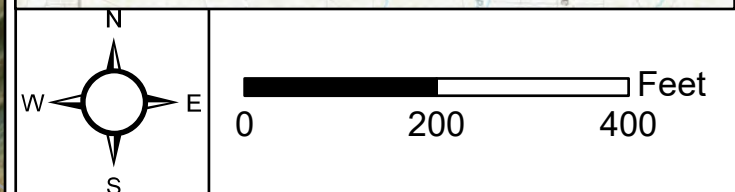


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

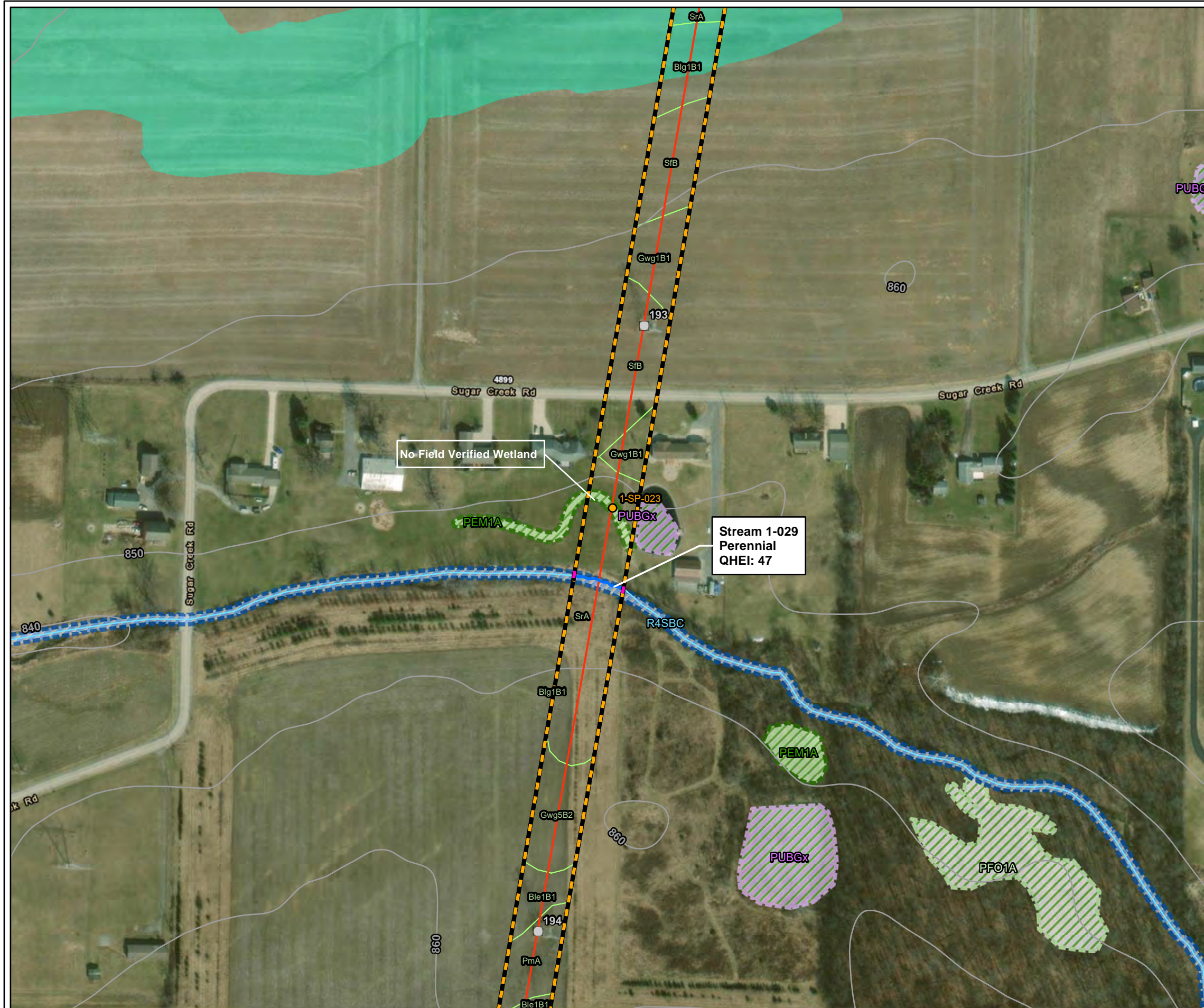
- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine



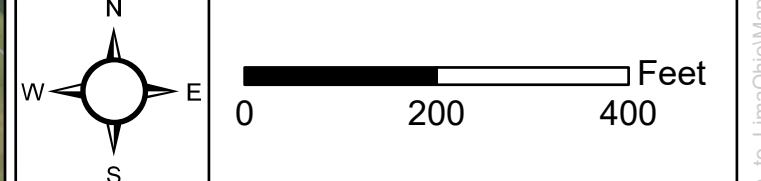
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



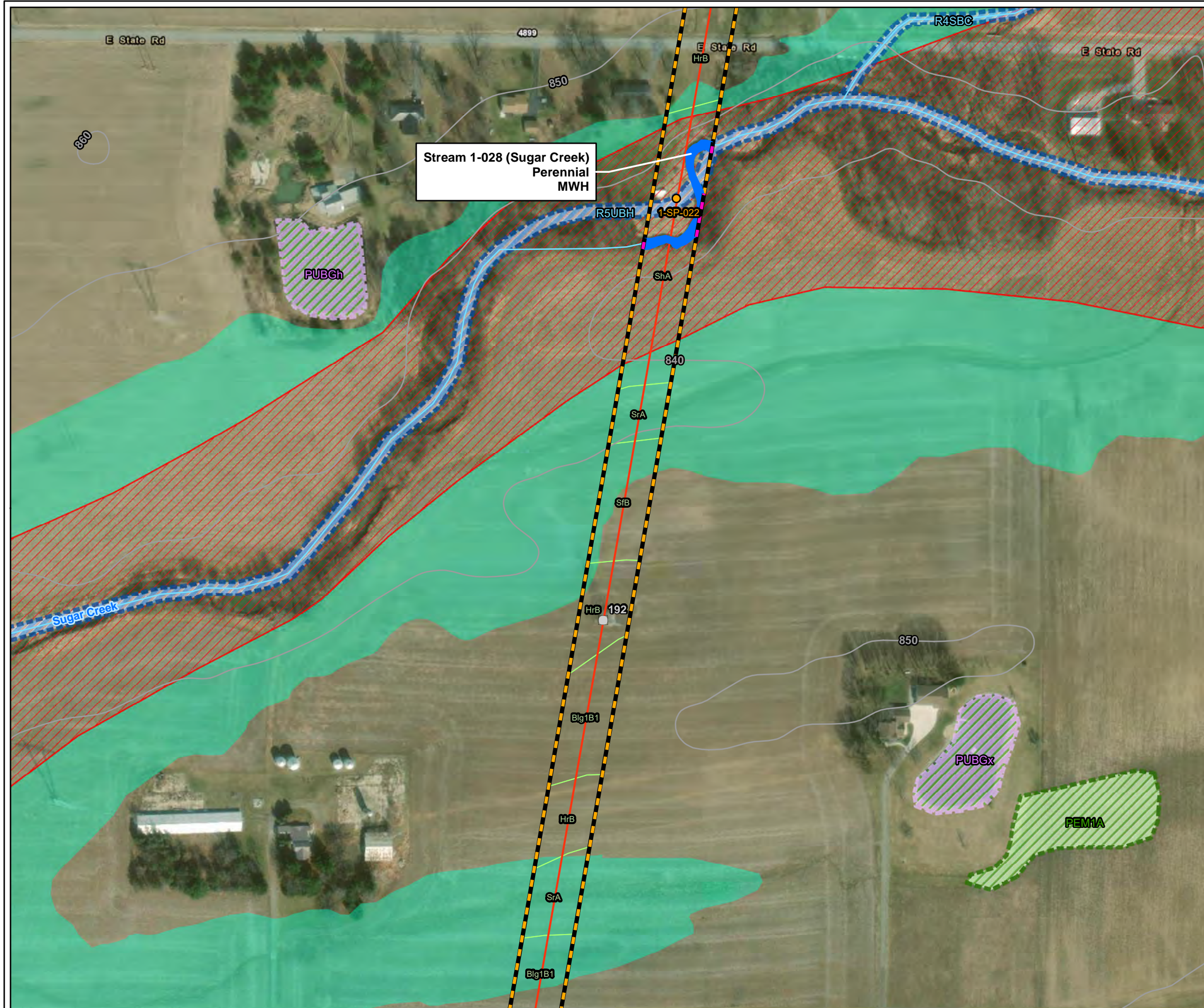
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine
- Sample Point**
- Upland



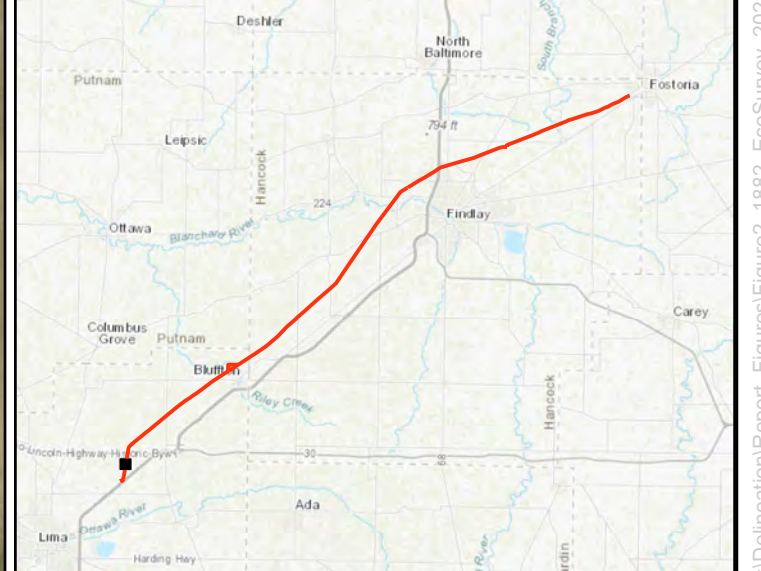
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



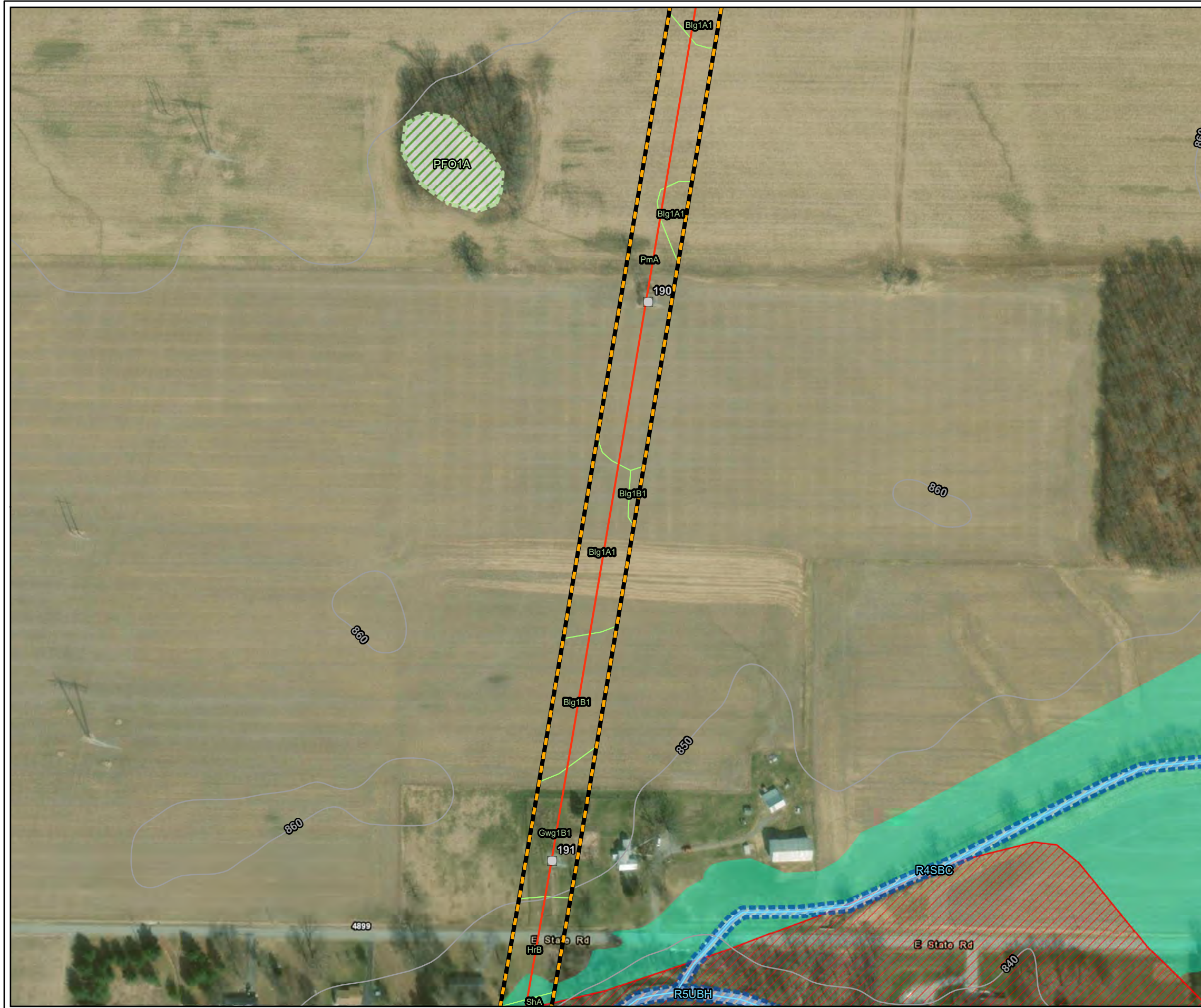
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- ▨ FEMA Floodway
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Emergent Wetland
- ▨ Freshwater Pond
- ▨ Riverine
- Sample Point**
- Upland



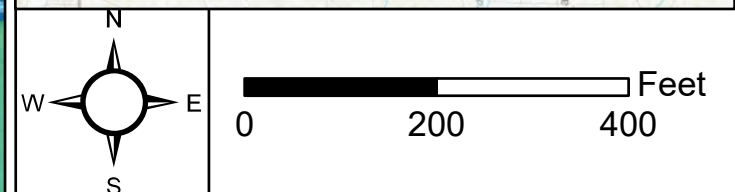
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- ▭ Area of Investigation (AOI)
- ▭ Soils
- ▭ FEMA Floodway
- ▭ FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▭ Freshwater Forested/Shrub Wetland
- ▭ Riverine



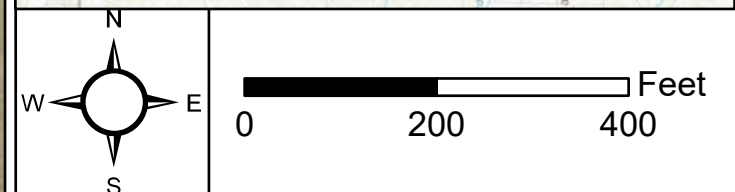
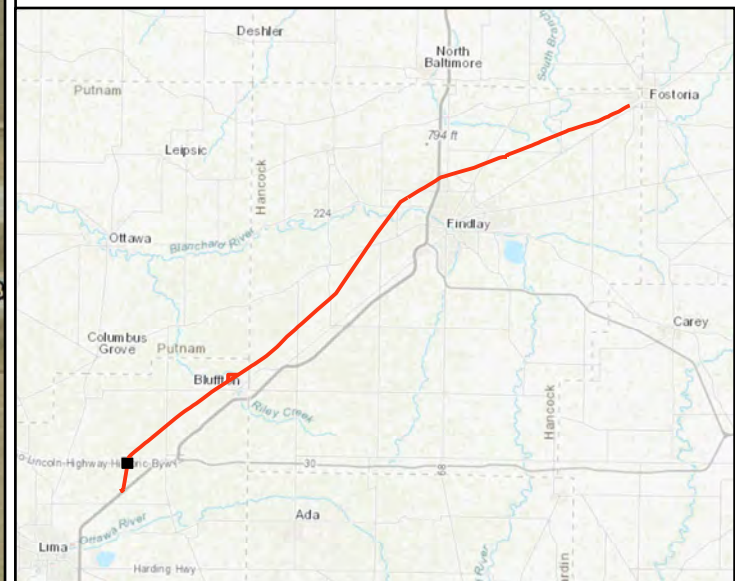
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 Project No. 1882

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- ▨ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Riverine

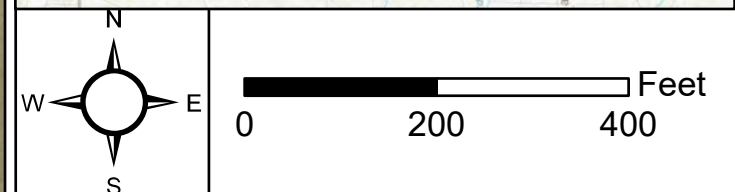
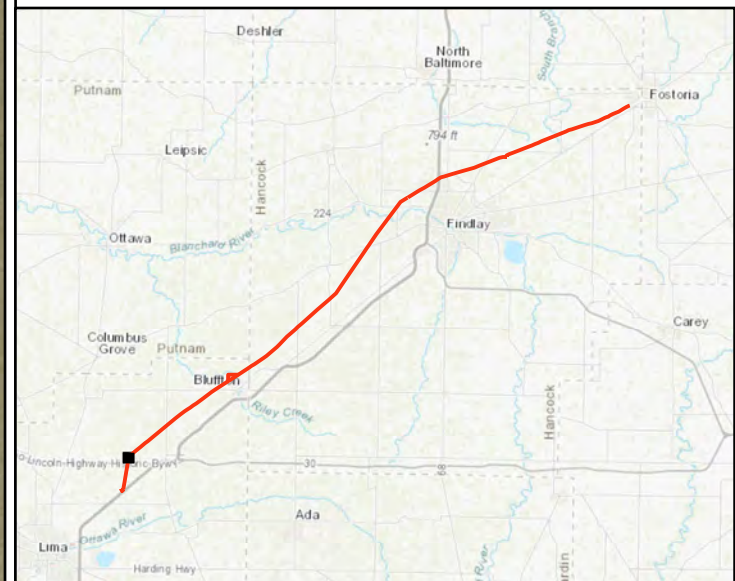


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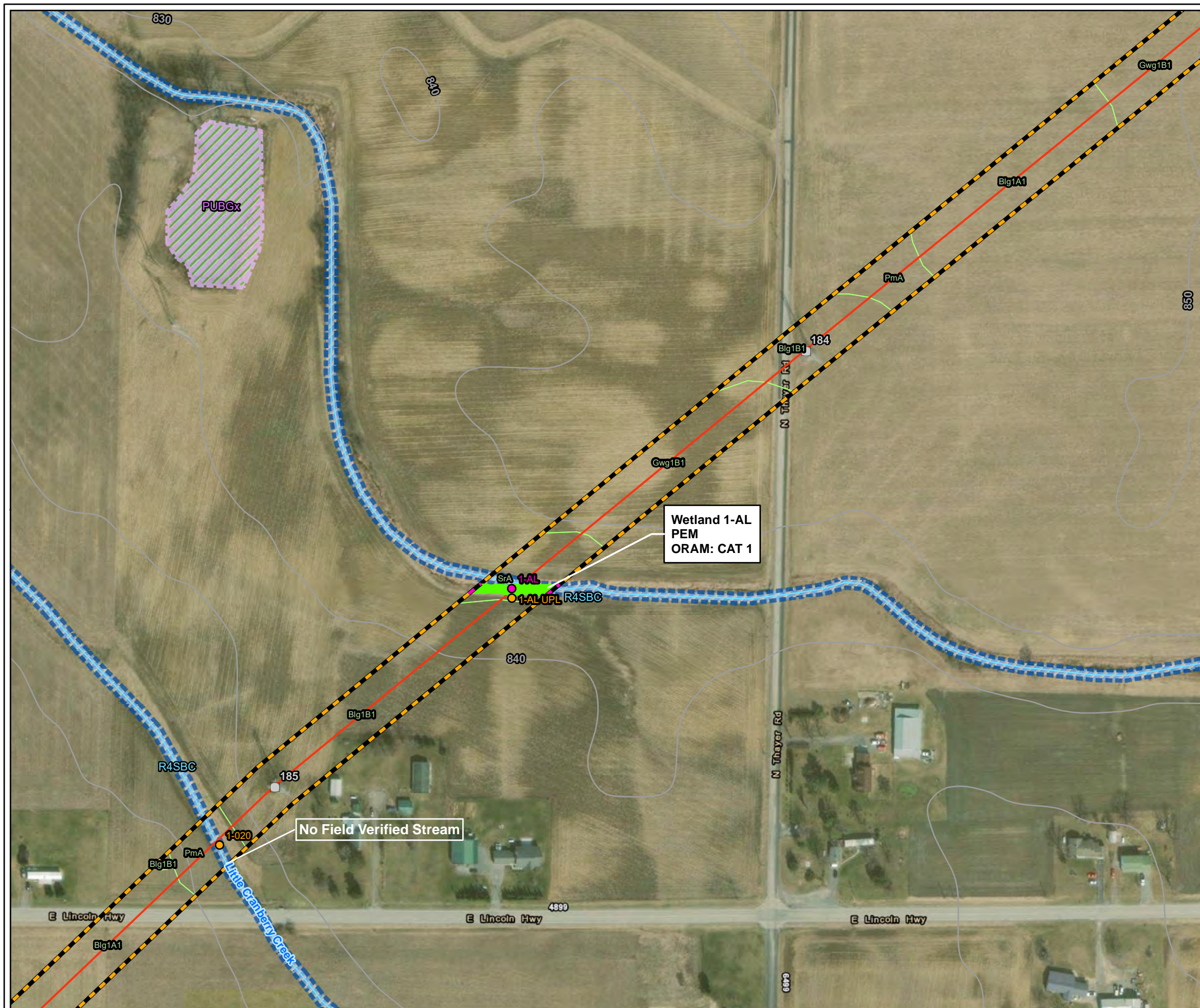
-  Structure Location
-  Project Centerline
-  National Hydrography Dataset (NHD) Stream
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour
- National Wetland Inventory (NWI)**
-  Riverine
- Sample Point**
-  Upland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine
- Sample Point**
- Upland
- Wetland



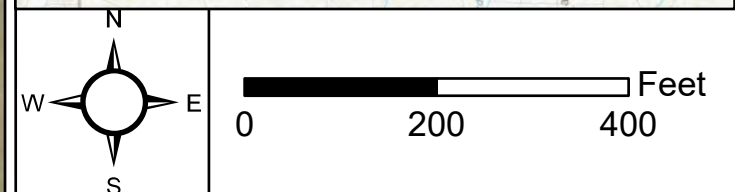
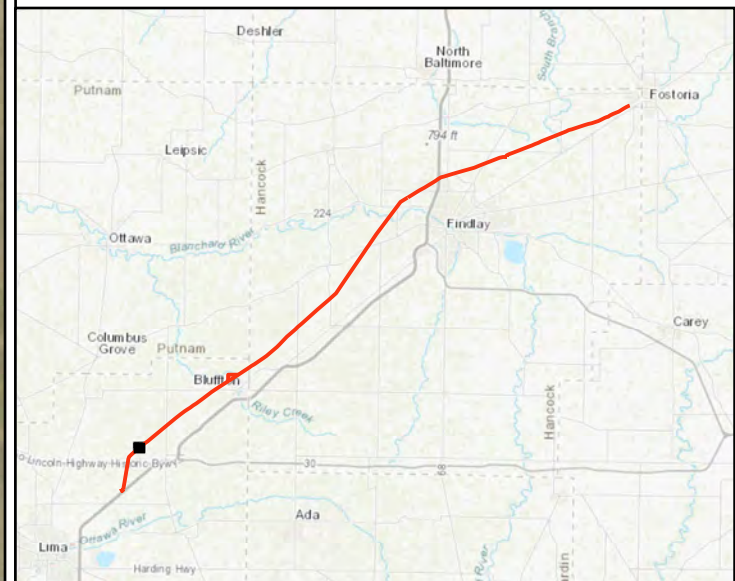
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Emergent Wetland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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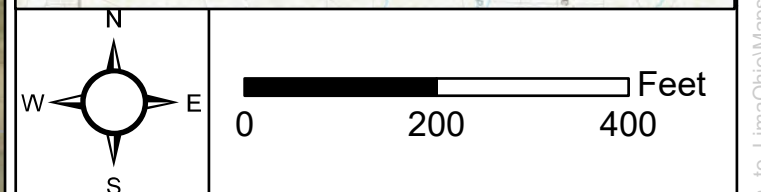


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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
 - Project Centerline
 - National Hydrography Dataset (NHD) Stream
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- National Wetland Inventory (NWI)**
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- Upland



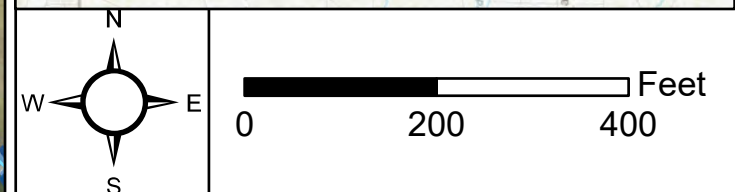
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 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



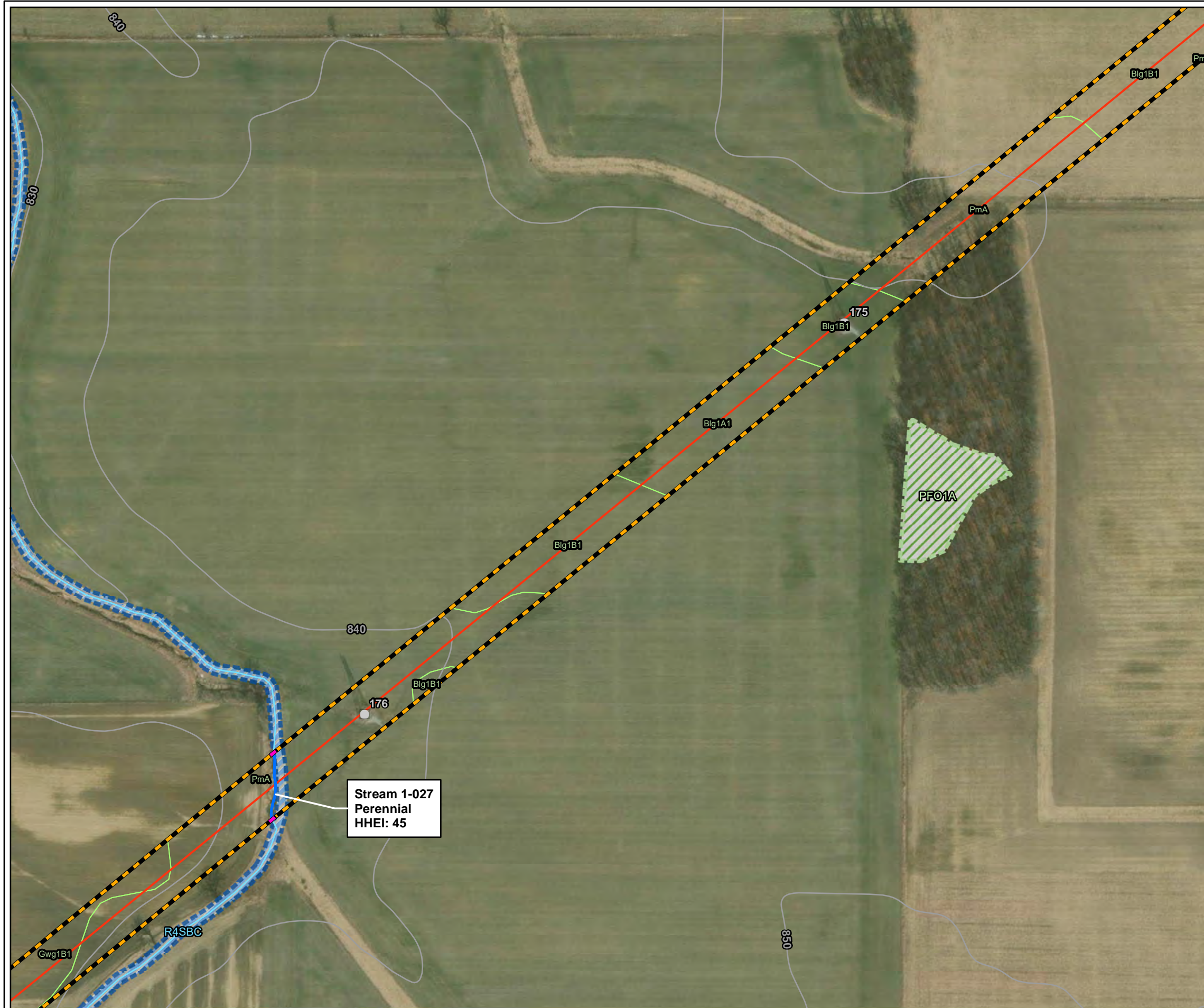
- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- ▨ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond
- ▨ Riverine



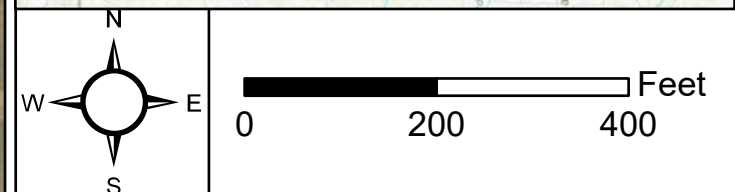
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Forested/Shrub Wetland
- Riverine



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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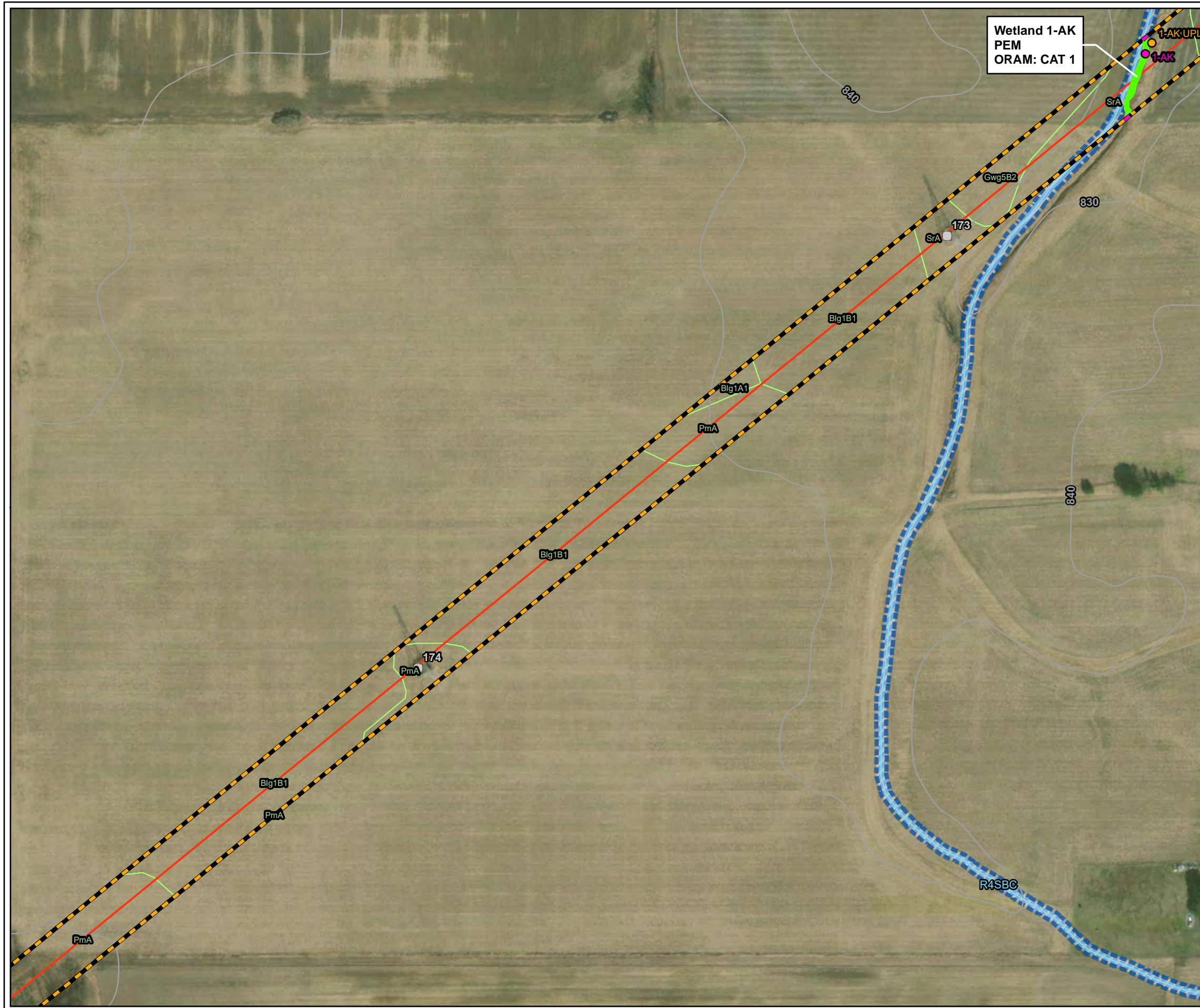
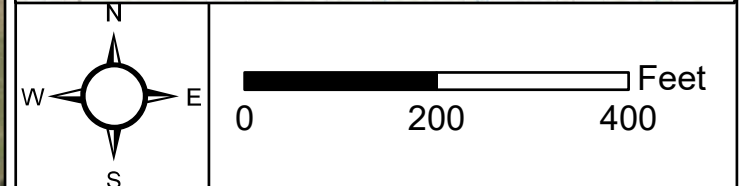
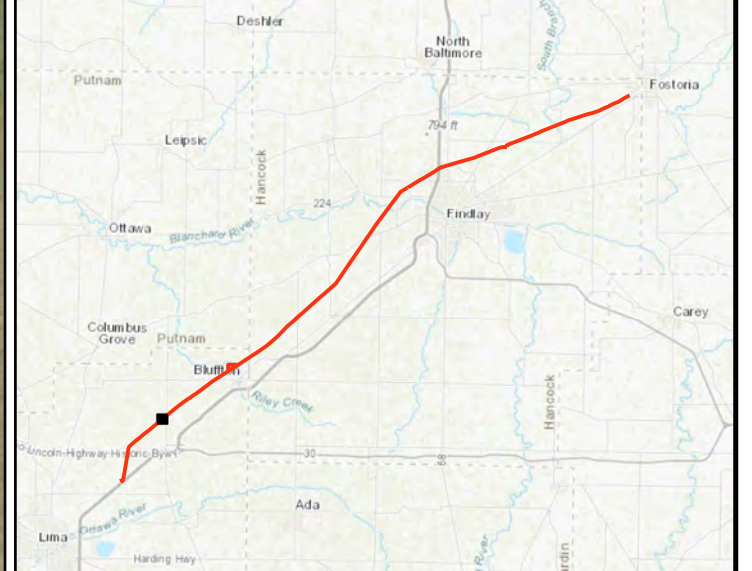


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

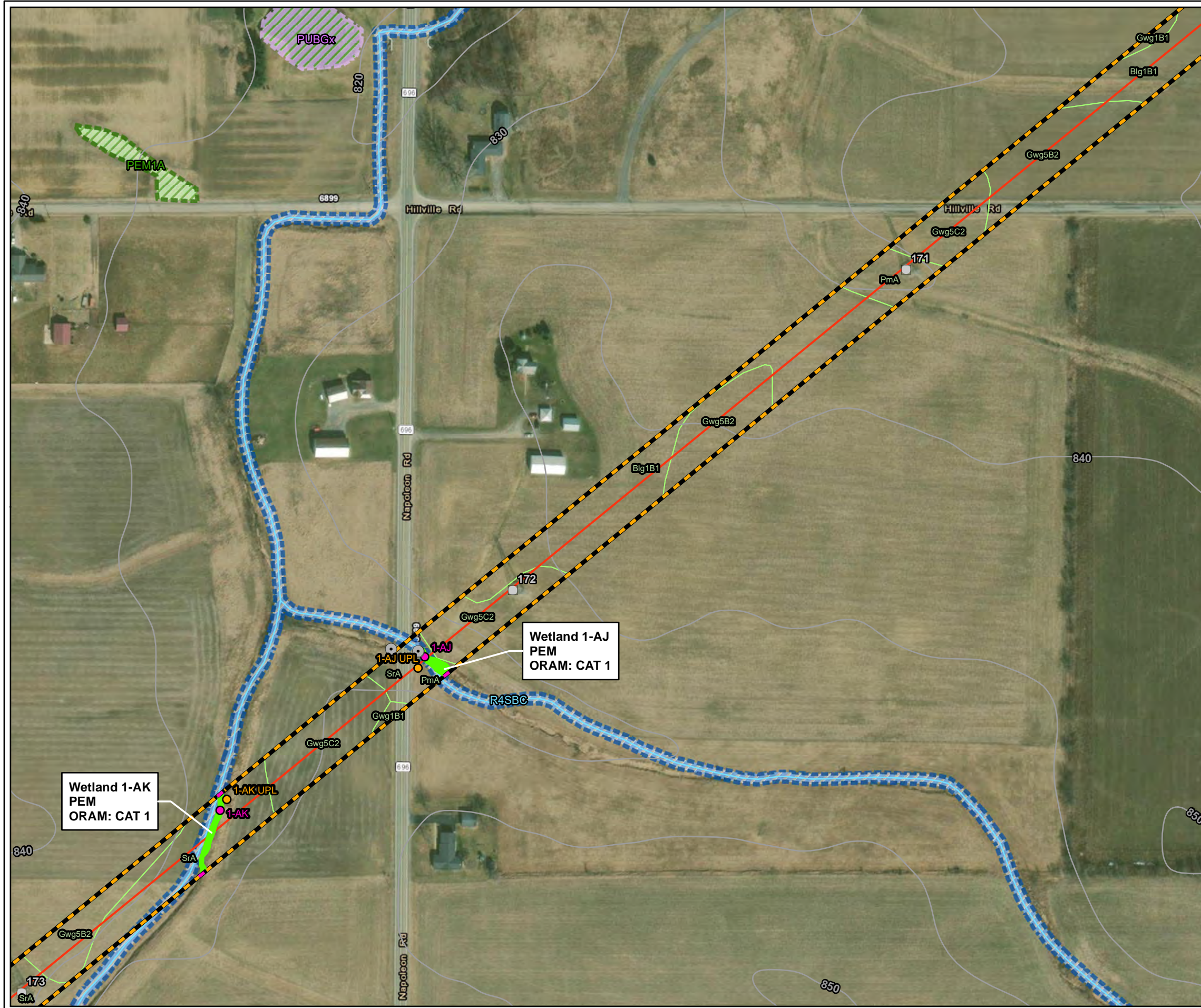
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland
- Wetland



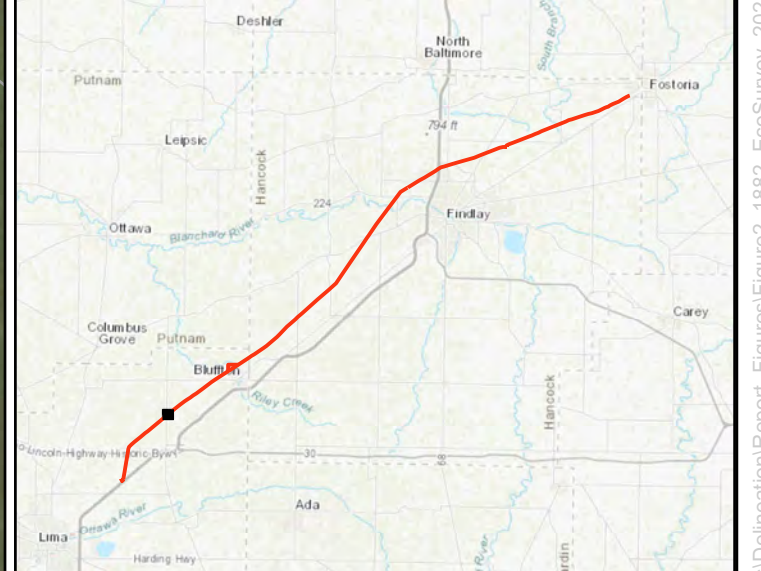
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Emergent Wetland
- Freshwater Pond
- Riverine
- Sample Point**
- Upland
- Wetland



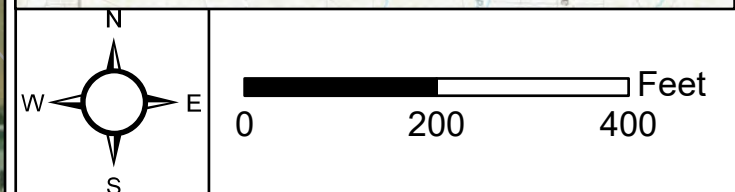
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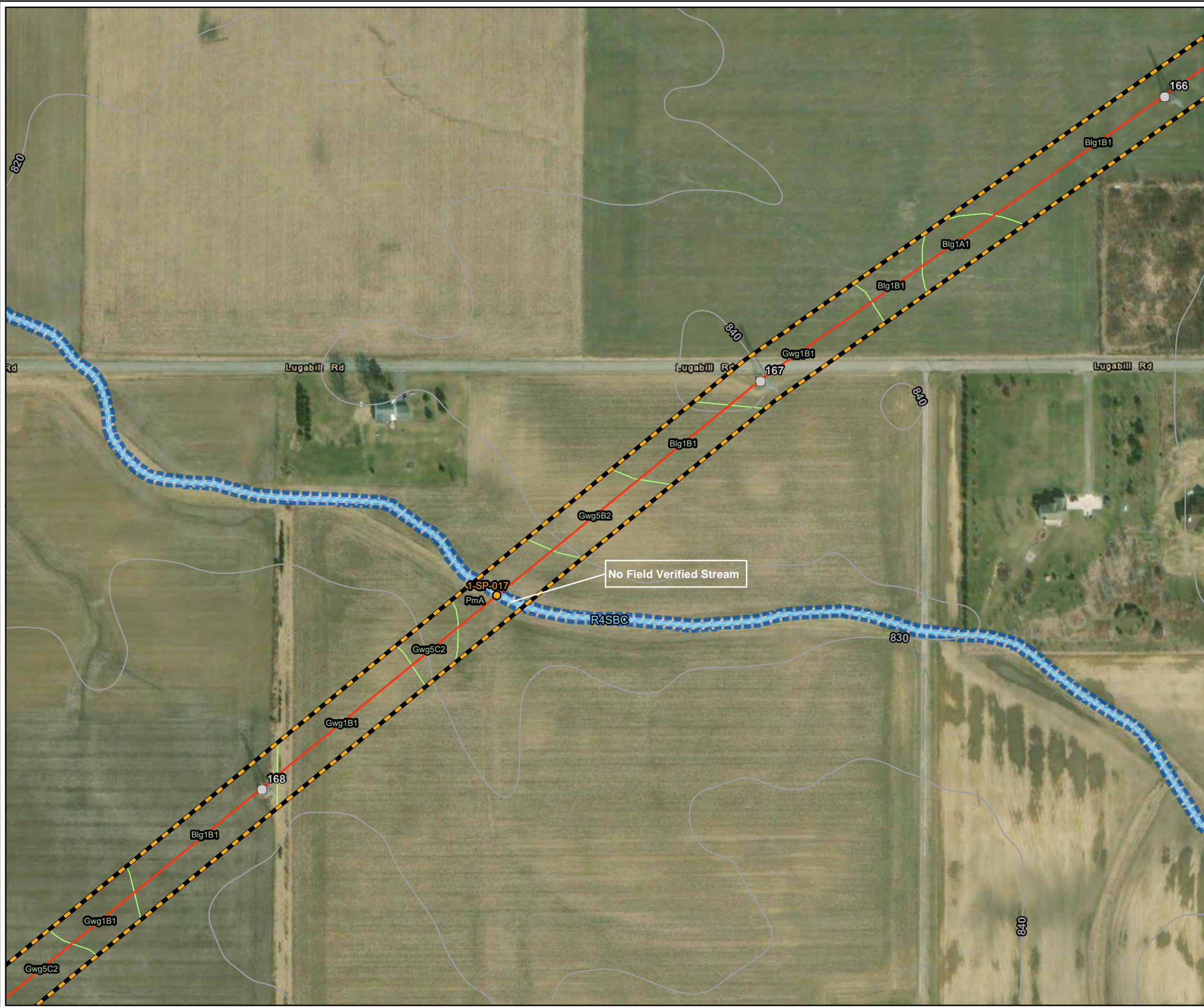


- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine
- Sample Point**
- Upland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour

National Wetland Inventory (NWI)

- Riverine

Sample Point

- Upland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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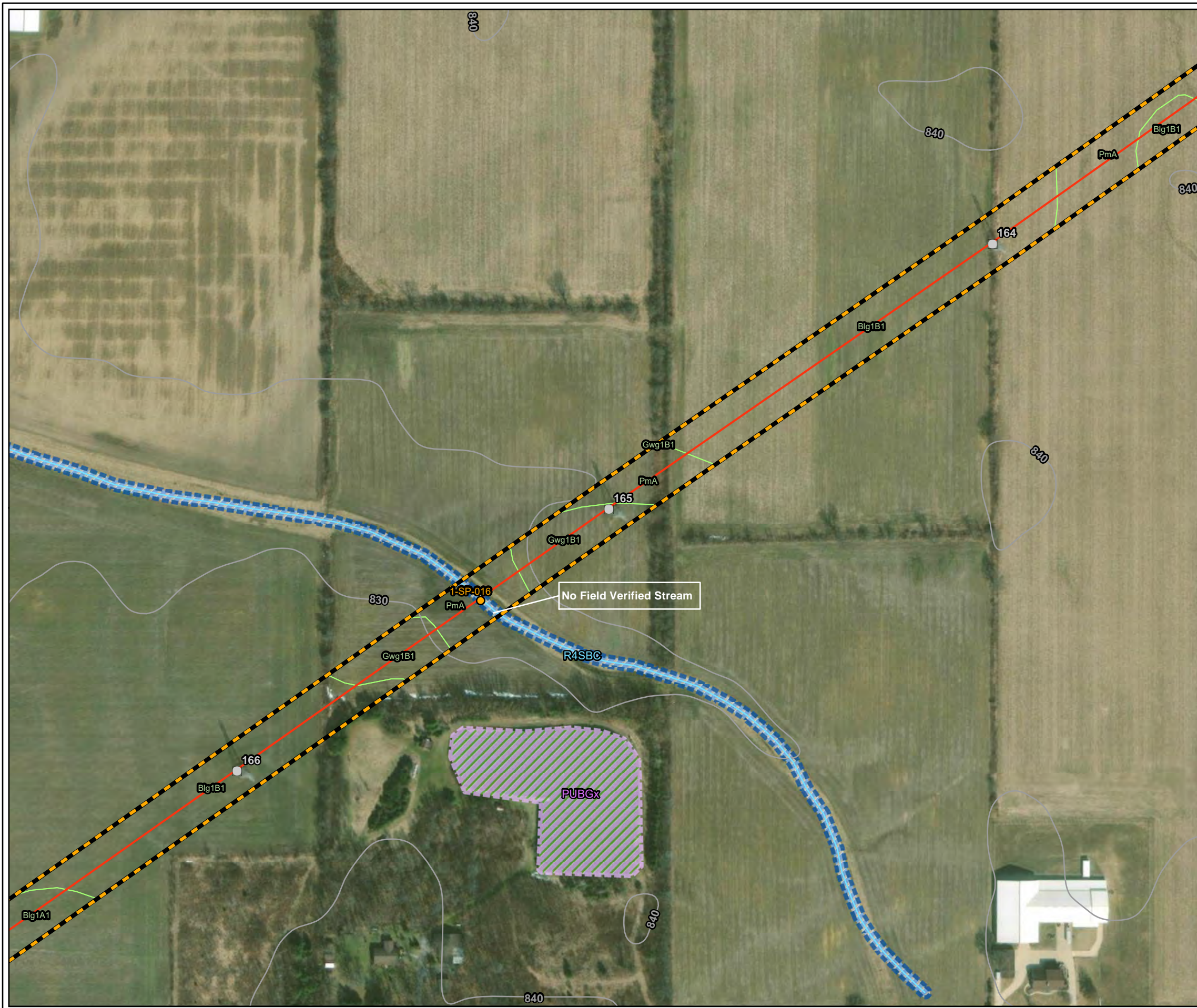
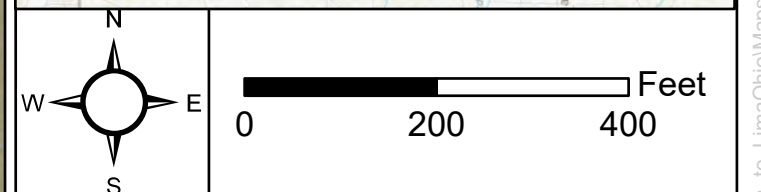


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- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
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- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
 - Freshwater Pond
 - Riverine
- Sample Point**
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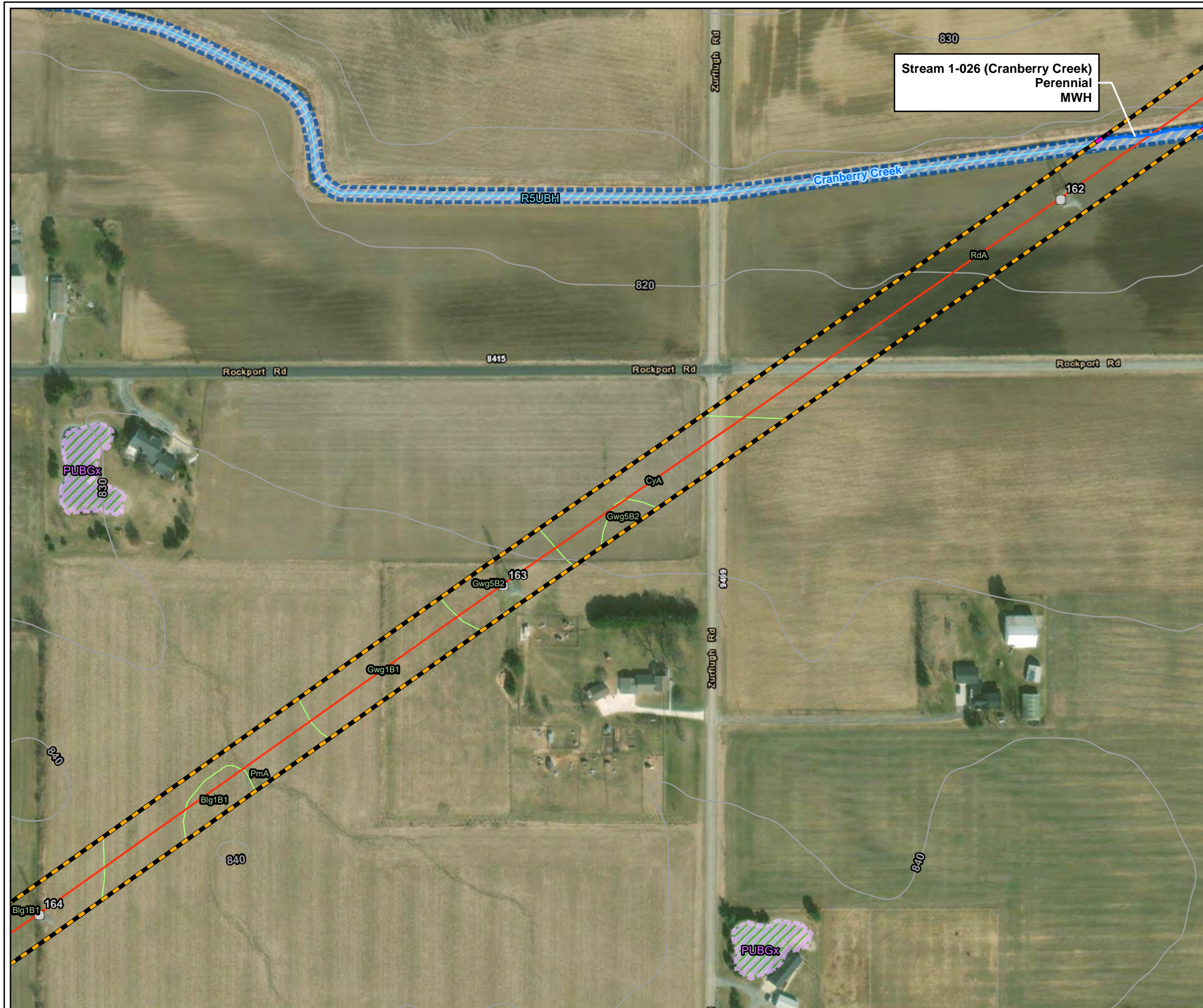
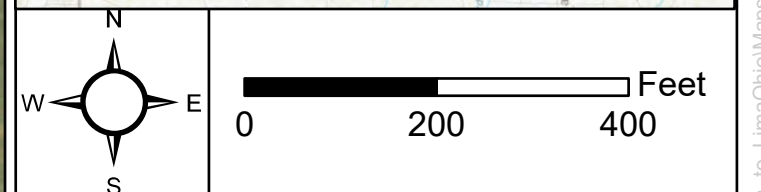


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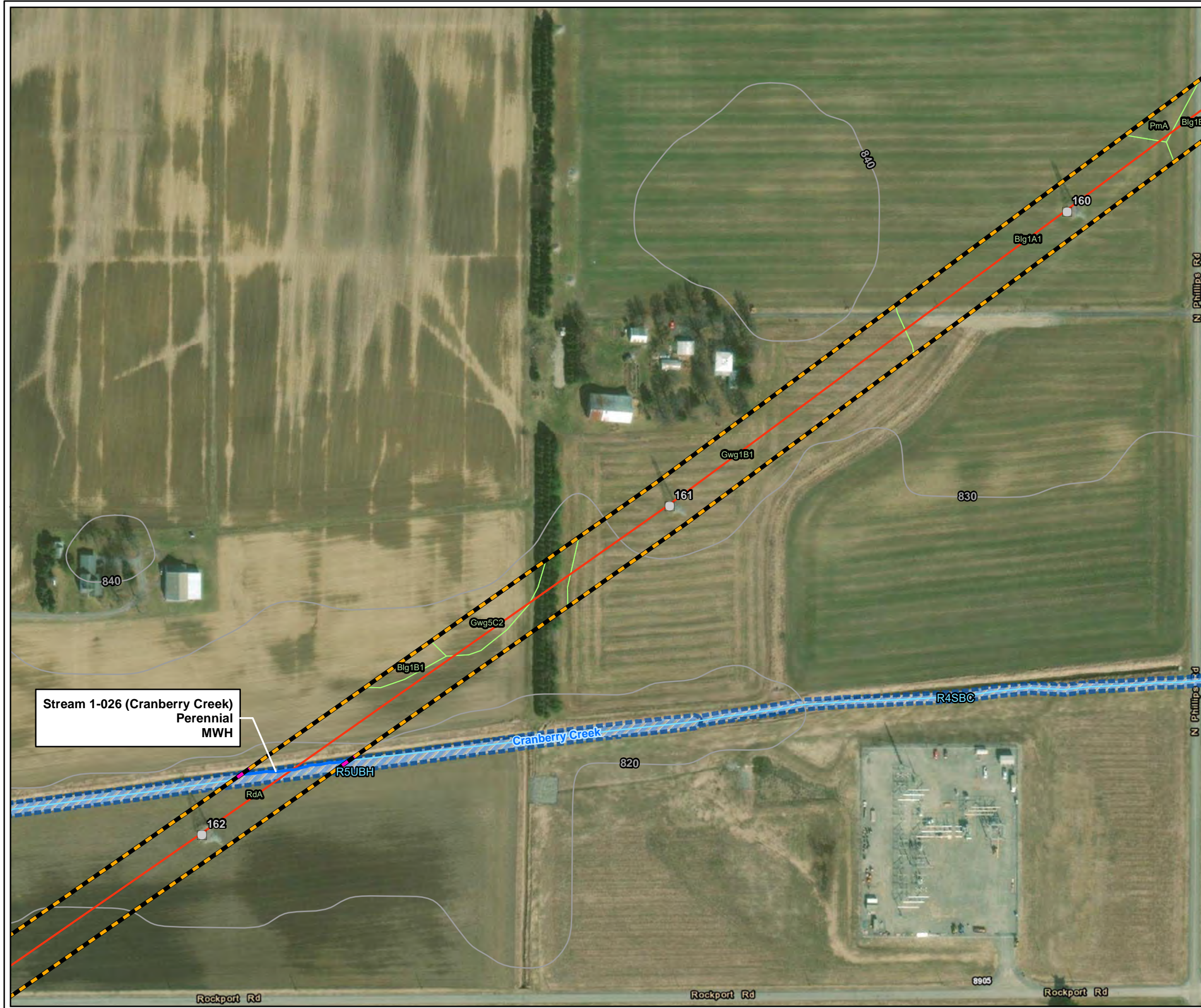
- Structure Location
 - Resource Continues Off-Site
 - Project Centerline
 - National Hydrography Dataset (NHD) Stream
 - Field-Delineated Stream
 - Area of Investigation (AOI)
 - Soils
 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Pond
 - Riverine



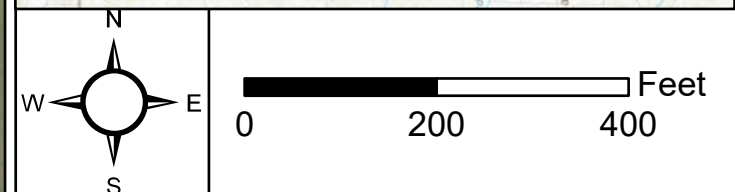
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



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 - Field-Delineated Stream
 - Area of Investigation (AOI)
 - Soils
 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine



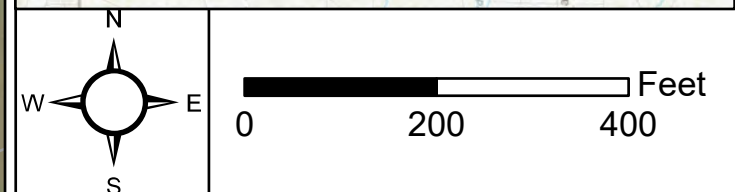
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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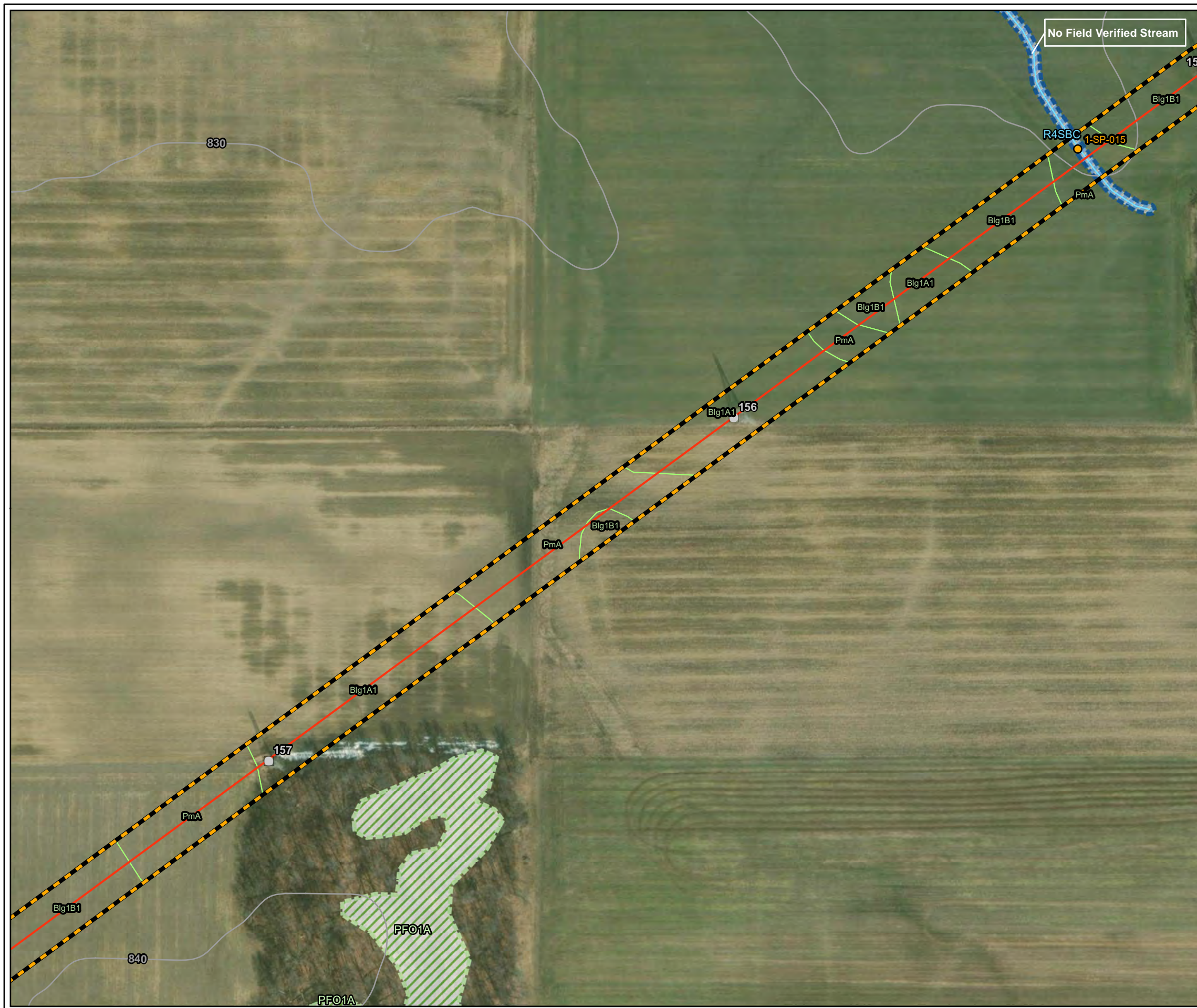
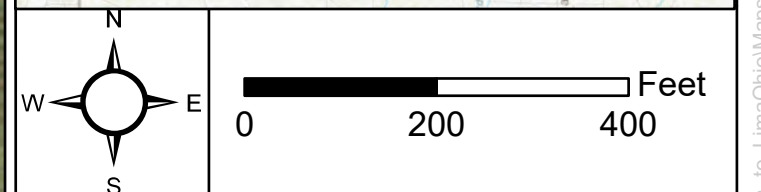


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

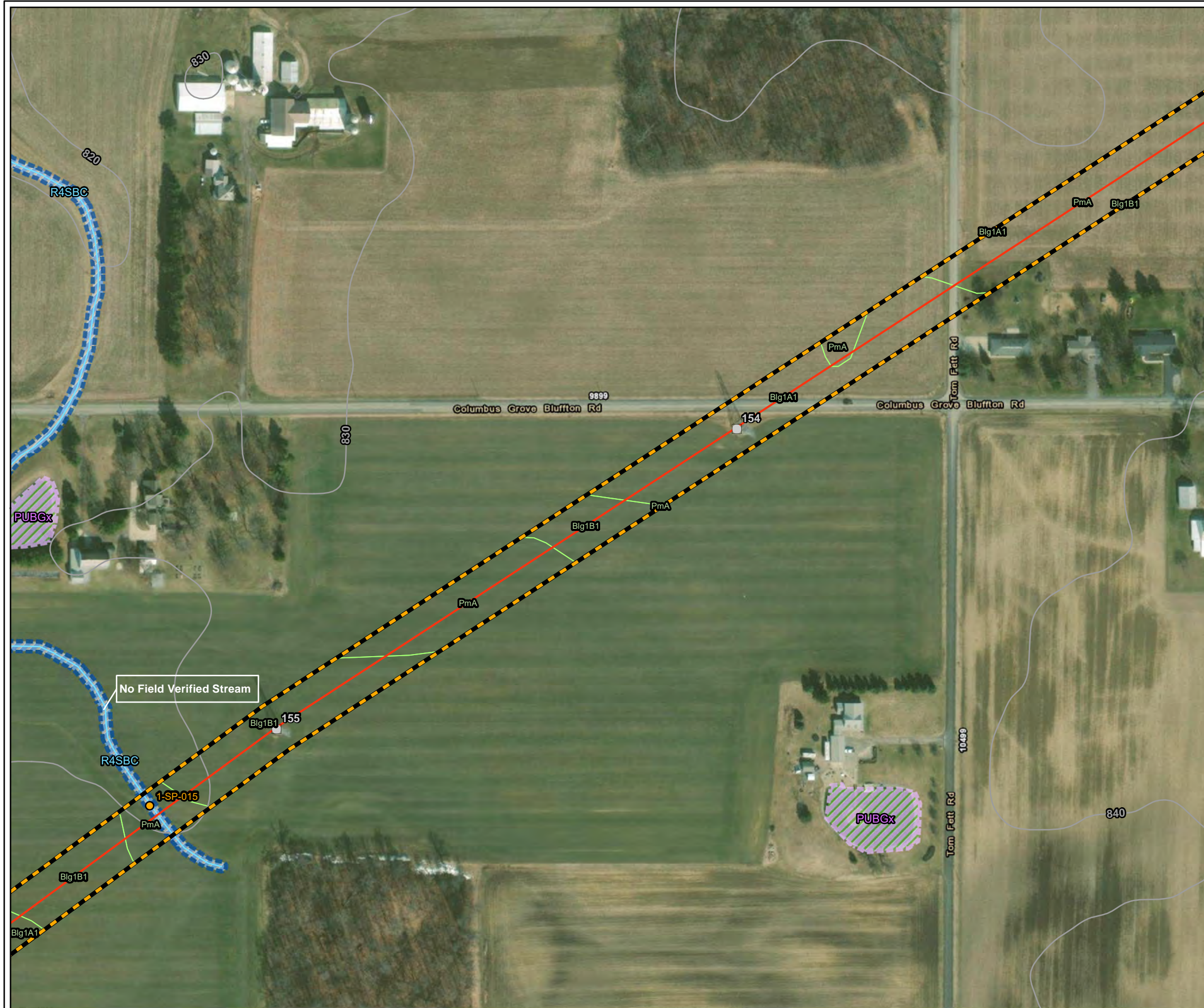
- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Forested/Shrub Wetland
- Riverine
- Sample Point**
- Upland



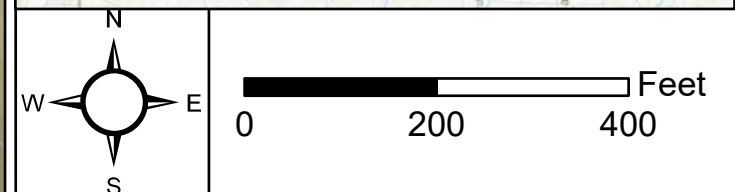
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine
- Sample Point**
- Upland



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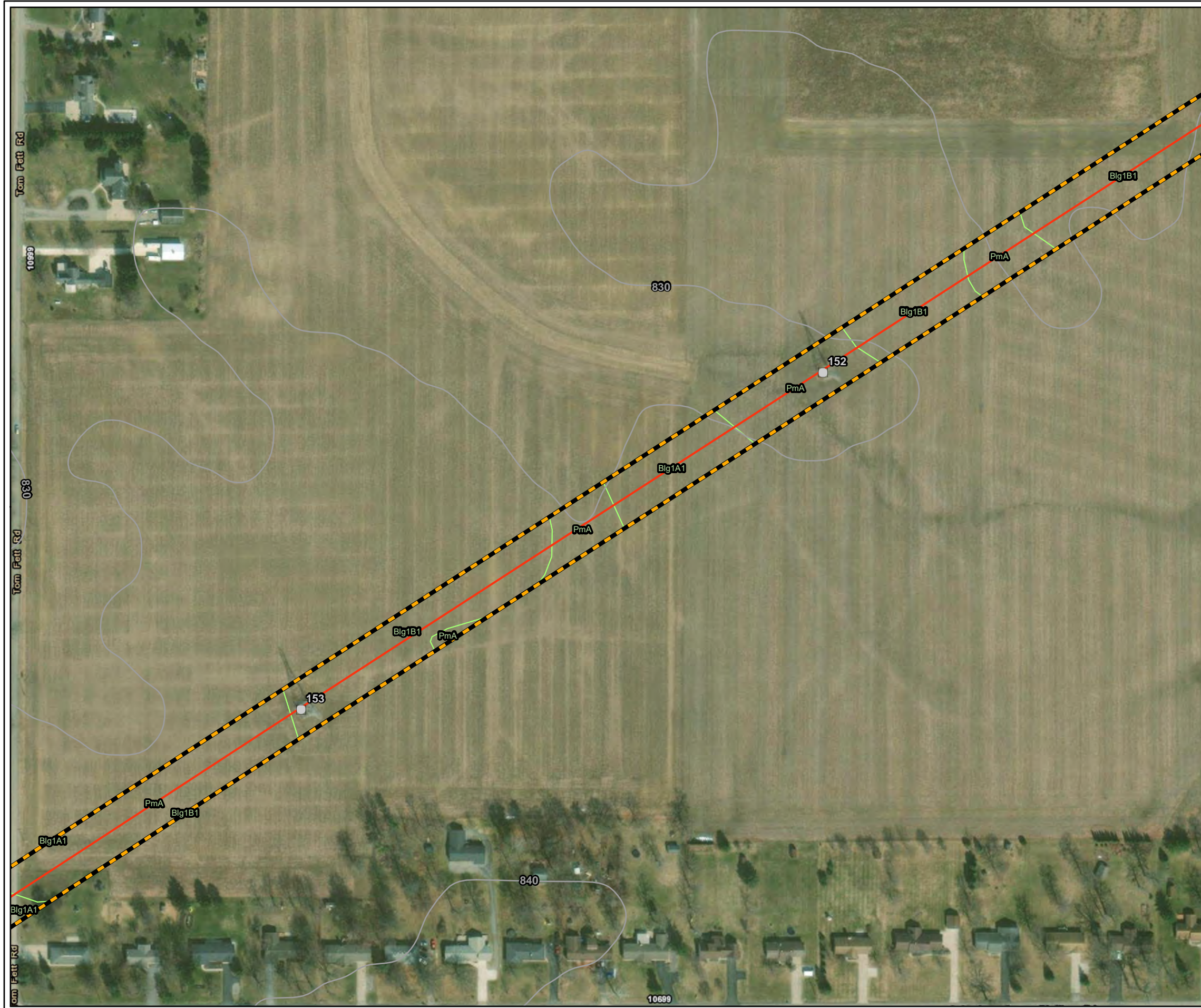
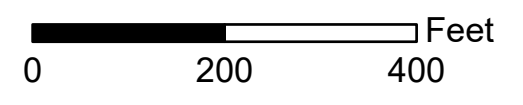
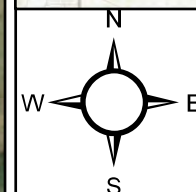


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour



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 Project No. 1882

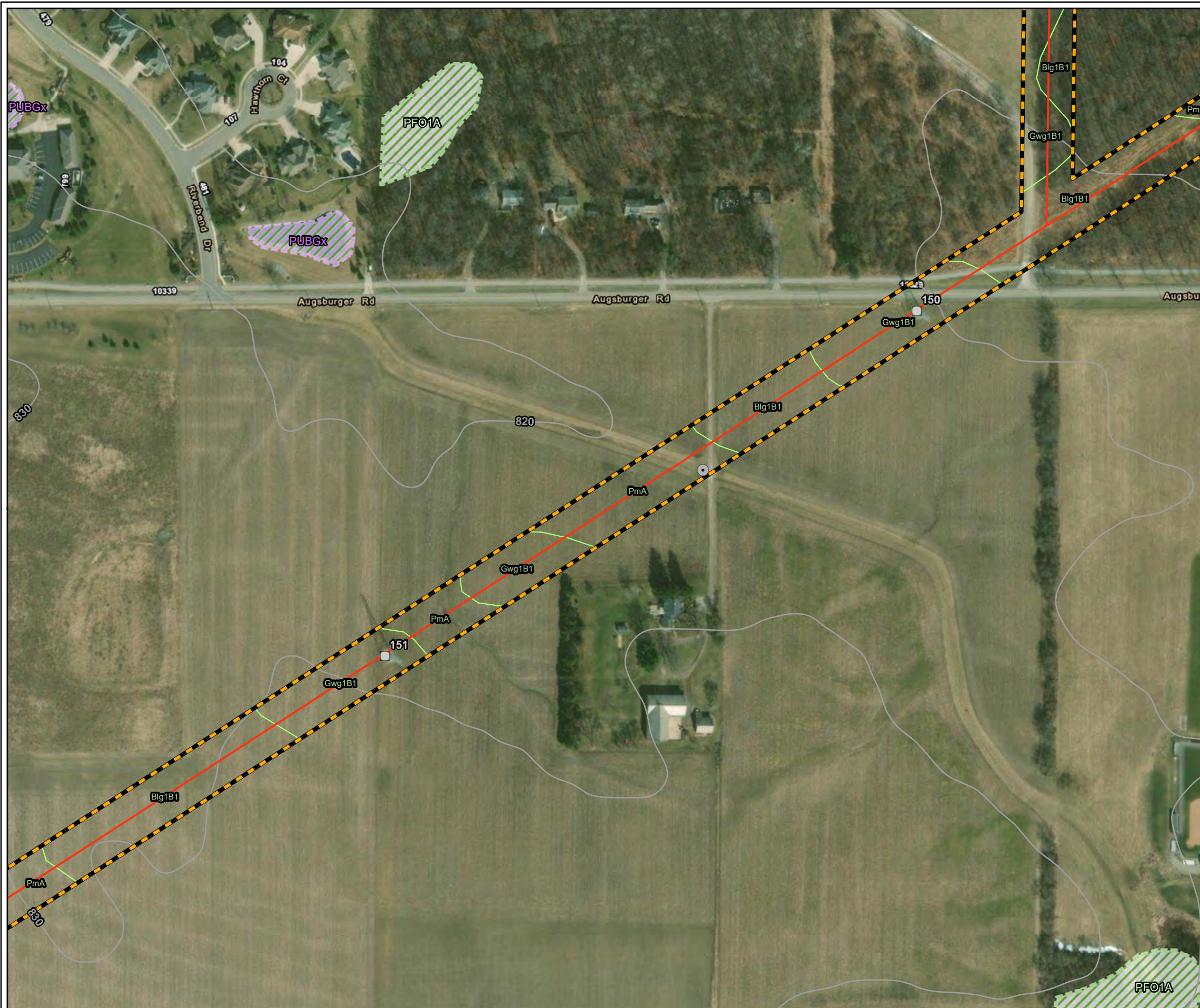
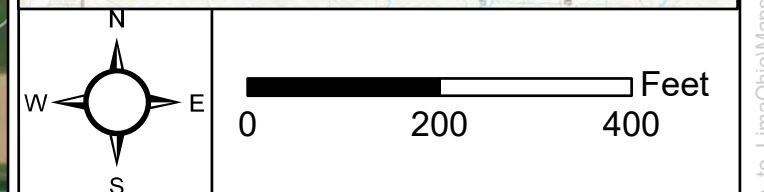


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Culvert Location
- Project Centerline
- ▨ Area of Investigation (AOI)
- ▨ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Forested/Shrub Wetland
- ▨ Freshwater Pond

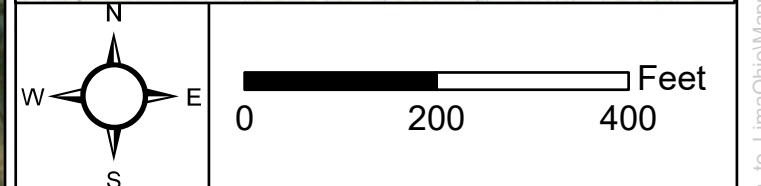
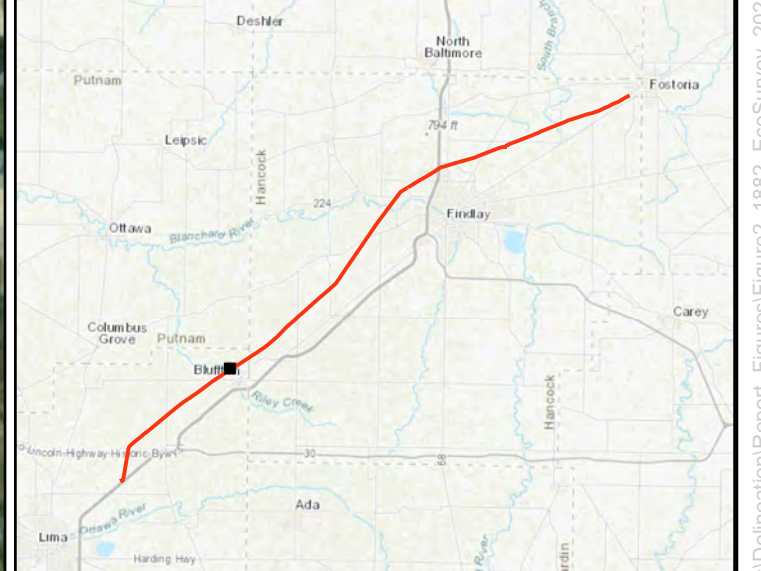


Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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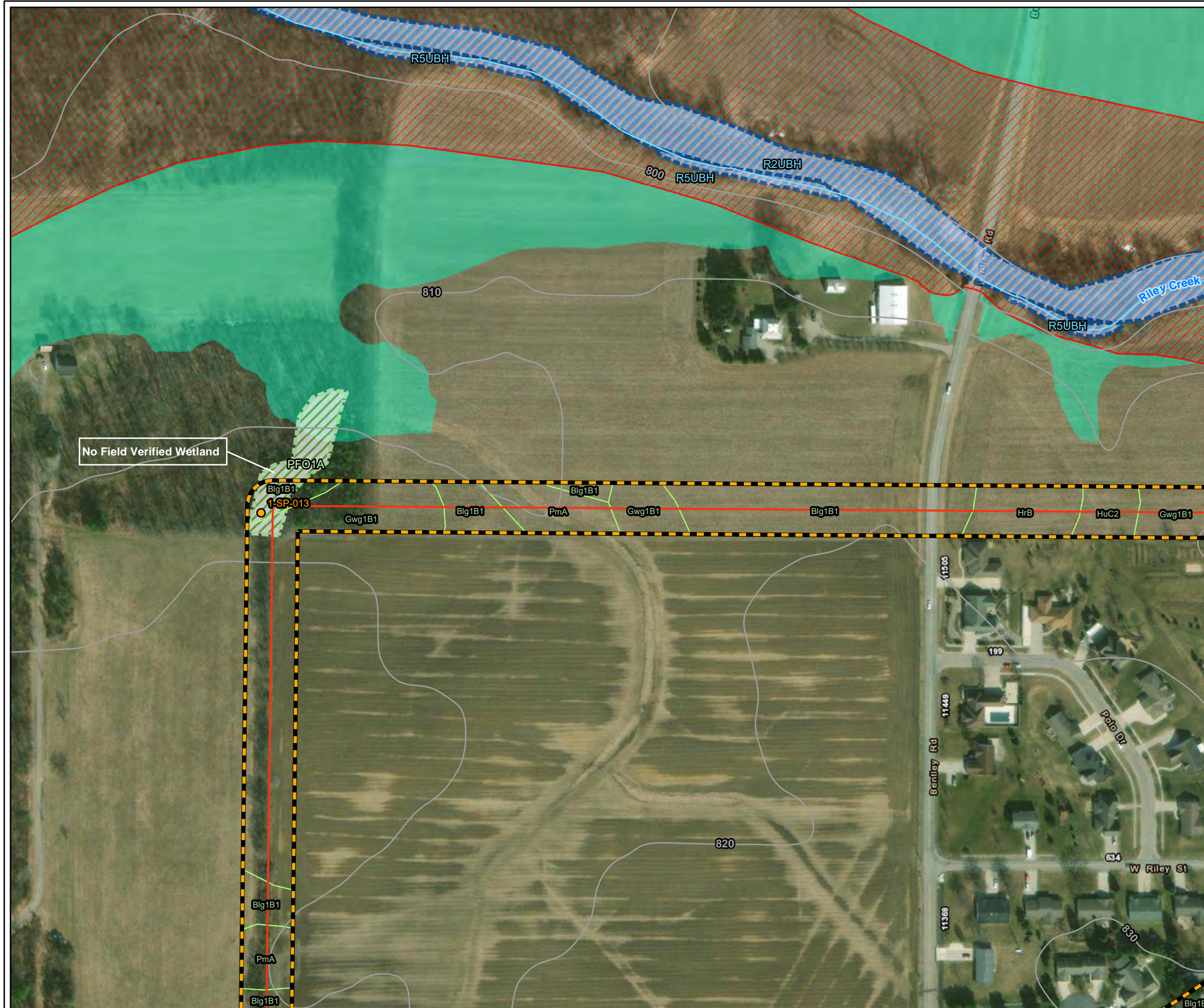
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Sample Point**
- Upland
- Wetland



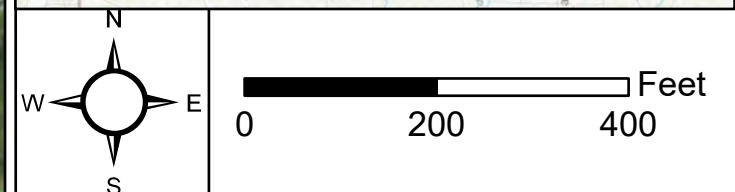
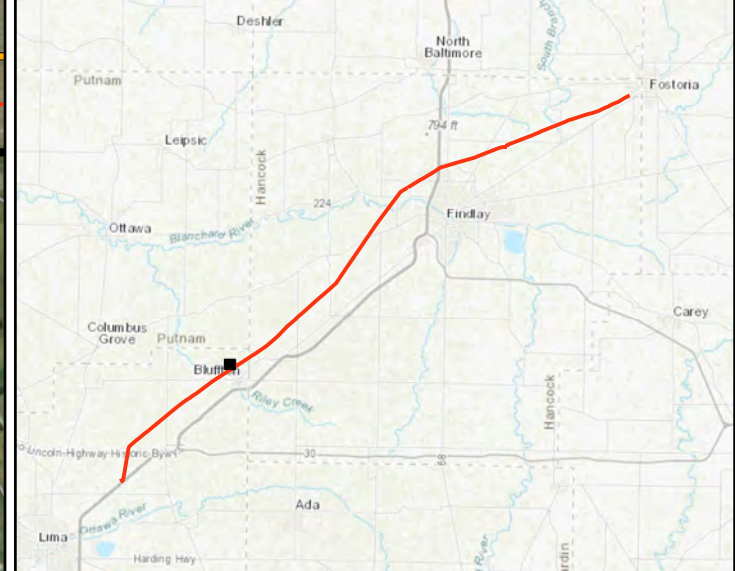
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- FEMA Floodway
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Forested/Shrub Wetland
- Riverine
- Sample Point**
- Upland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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No Field Verified Wetland

PFO1A

Blg1B1
 1-SP-013

Gwg1B1

Blg1B1

PmA

Gwg1B1

Blg1B1

HrB

HuC2

Gwg1B1

Blg1B1

PmA

Blg1B1

Bentley Rd
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 11369

199

634

830

W Riley St

810

820

R5UBH

800 R5UBH

R2UBH

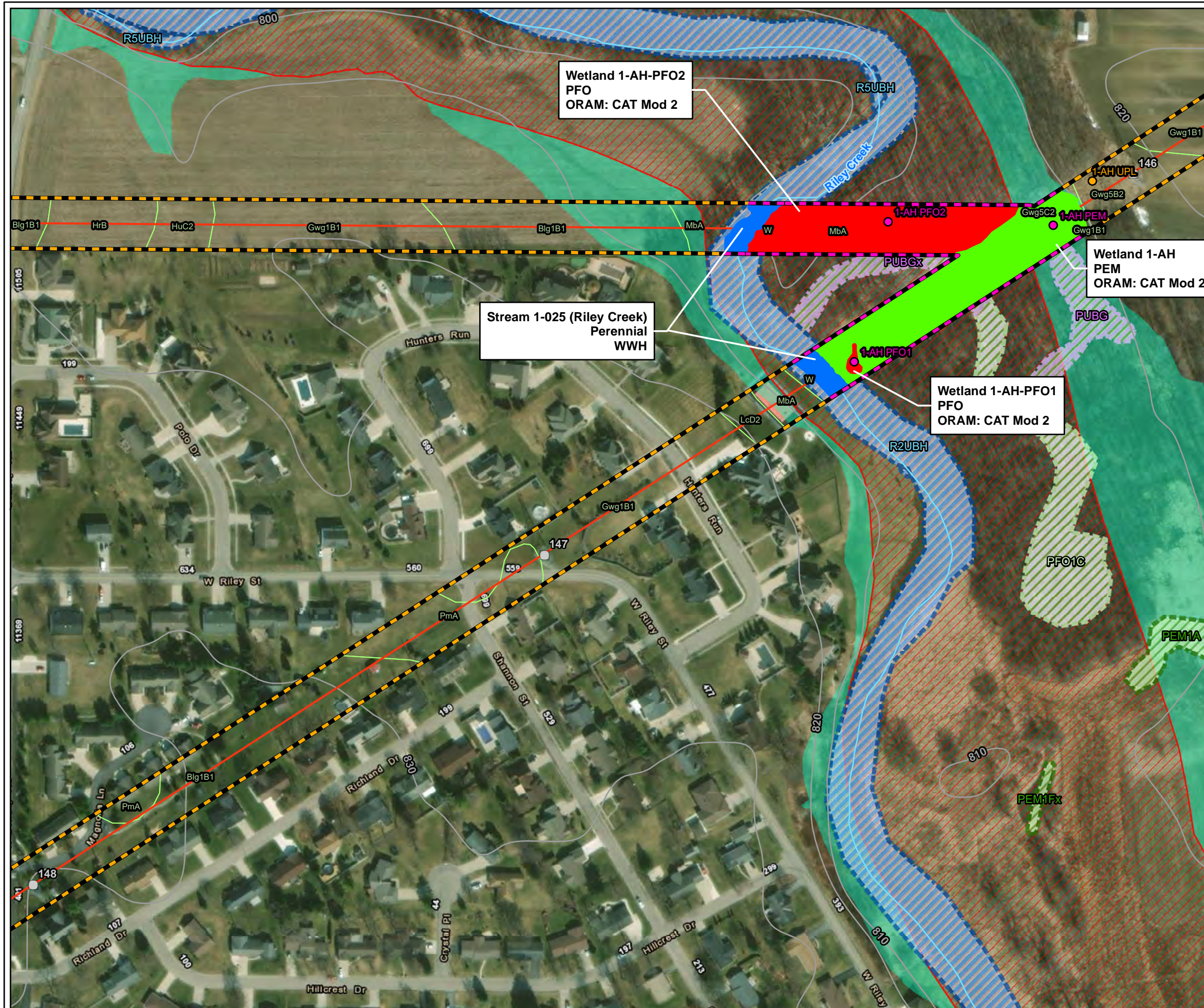
R5UBH

R4

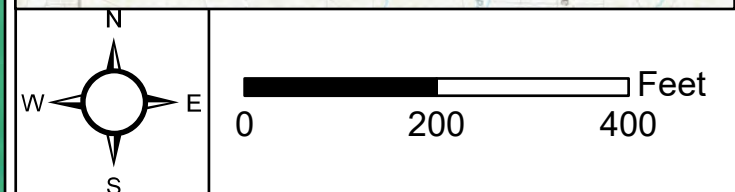
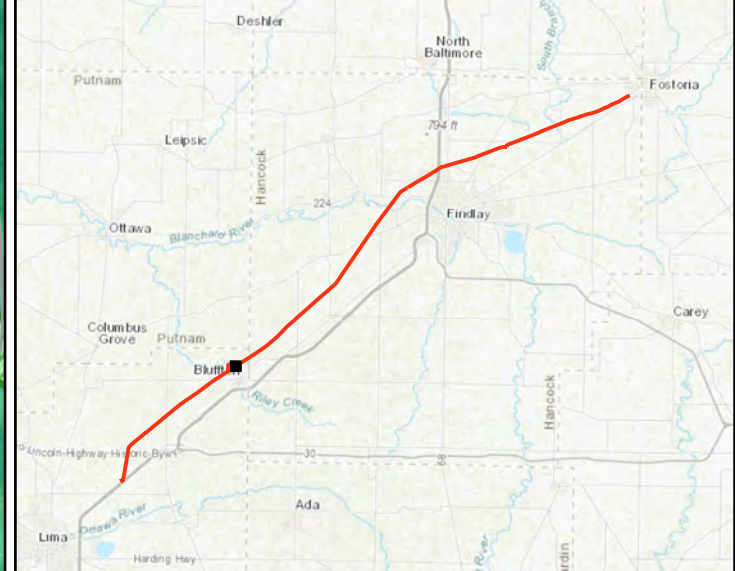
Riley Creek

Blg1B1

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- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA Floodway
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- PFO



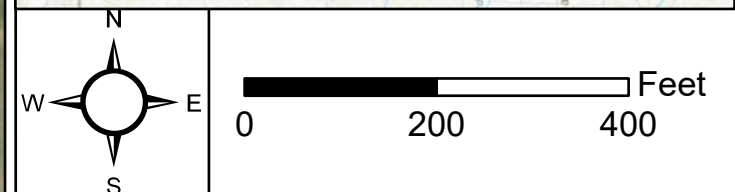
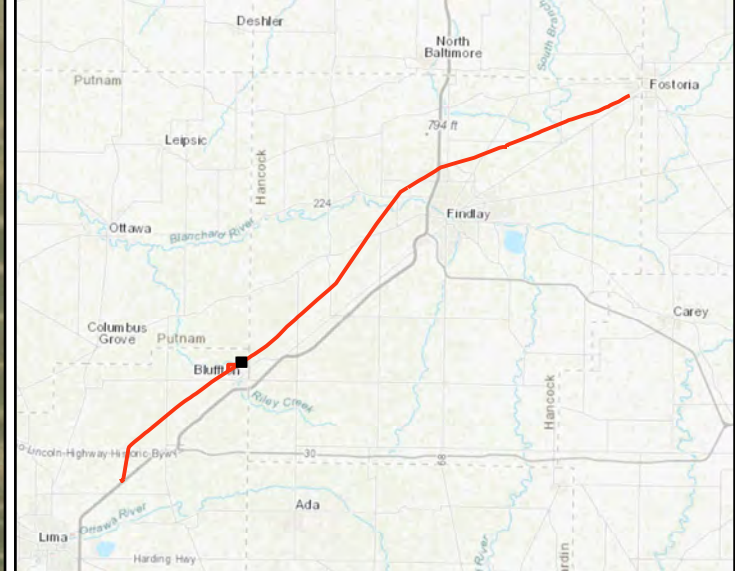
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- Structure Location
- Resource Continues Off-Site
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- ▭ FEMA Floodway
- ▭ FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- ▭ PEM
- ▭ PFO
- National Wetland Inventory (NWI)**
- ▭ Freshwater Emergent Wetland
- ▭ Freshwater Forested/Shrub Wetland
- ▭ Freshwater Pond
- Sample Point**
- Upland
- Wetland



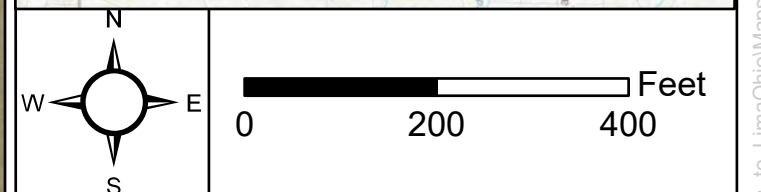
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Forested/Shrub Wetland



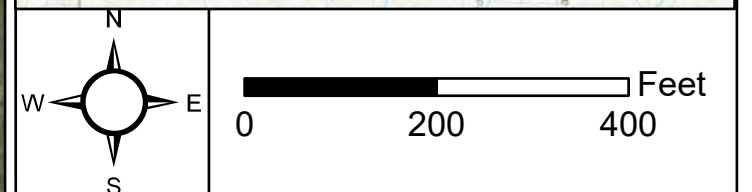
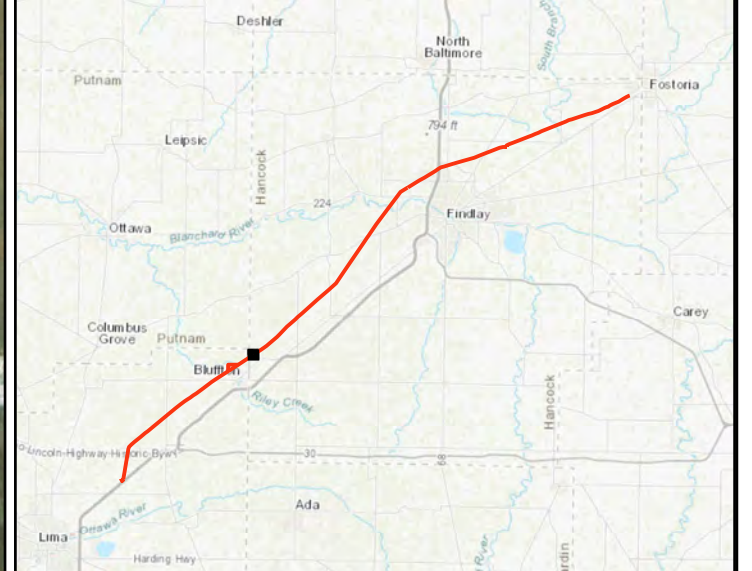
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- Structure Location
- Project Centerline
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- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- ▨ Freshwater Emergent Wetland
- ▨ Freshwater Forested/Shrub Wetland
- Sample Point**
- Upland
- Wetland



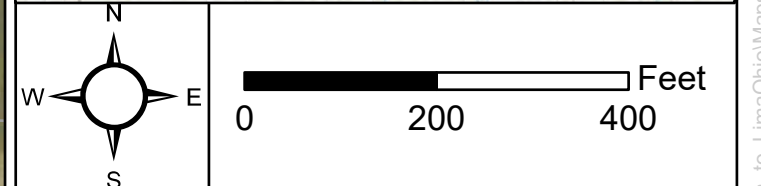
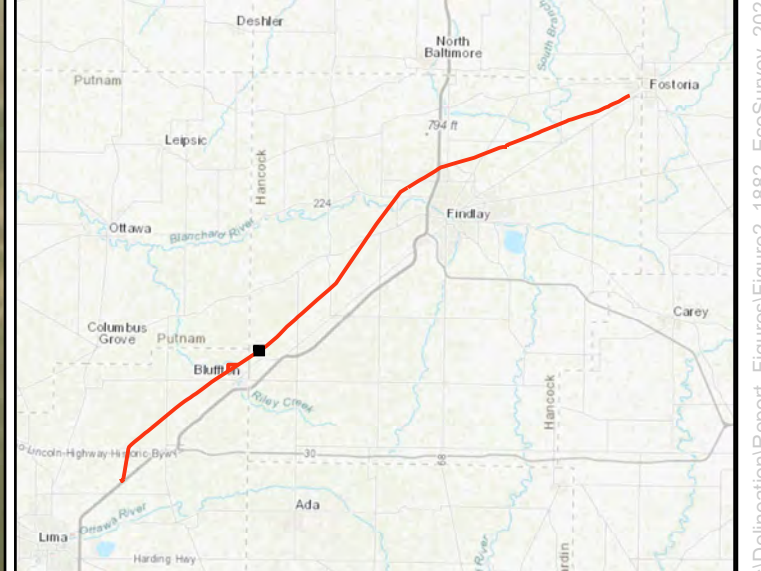
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- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Sample Point**
- Upland



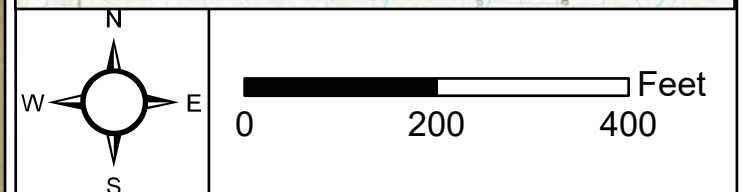
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- Area of Investigation (AOI)
- Soils
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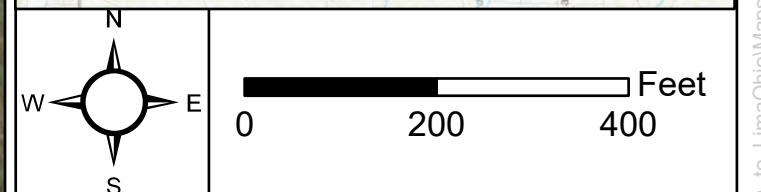
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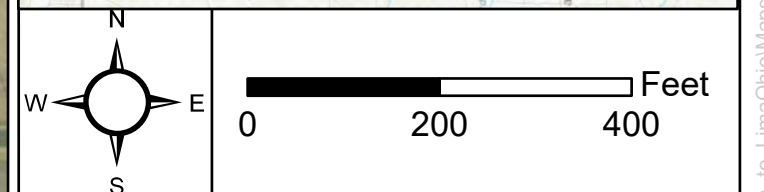
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine

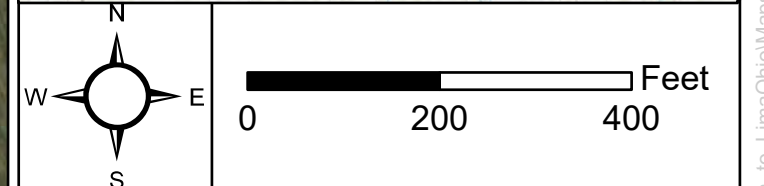


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- Structure Location
- Project Centerline
- ▨ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond



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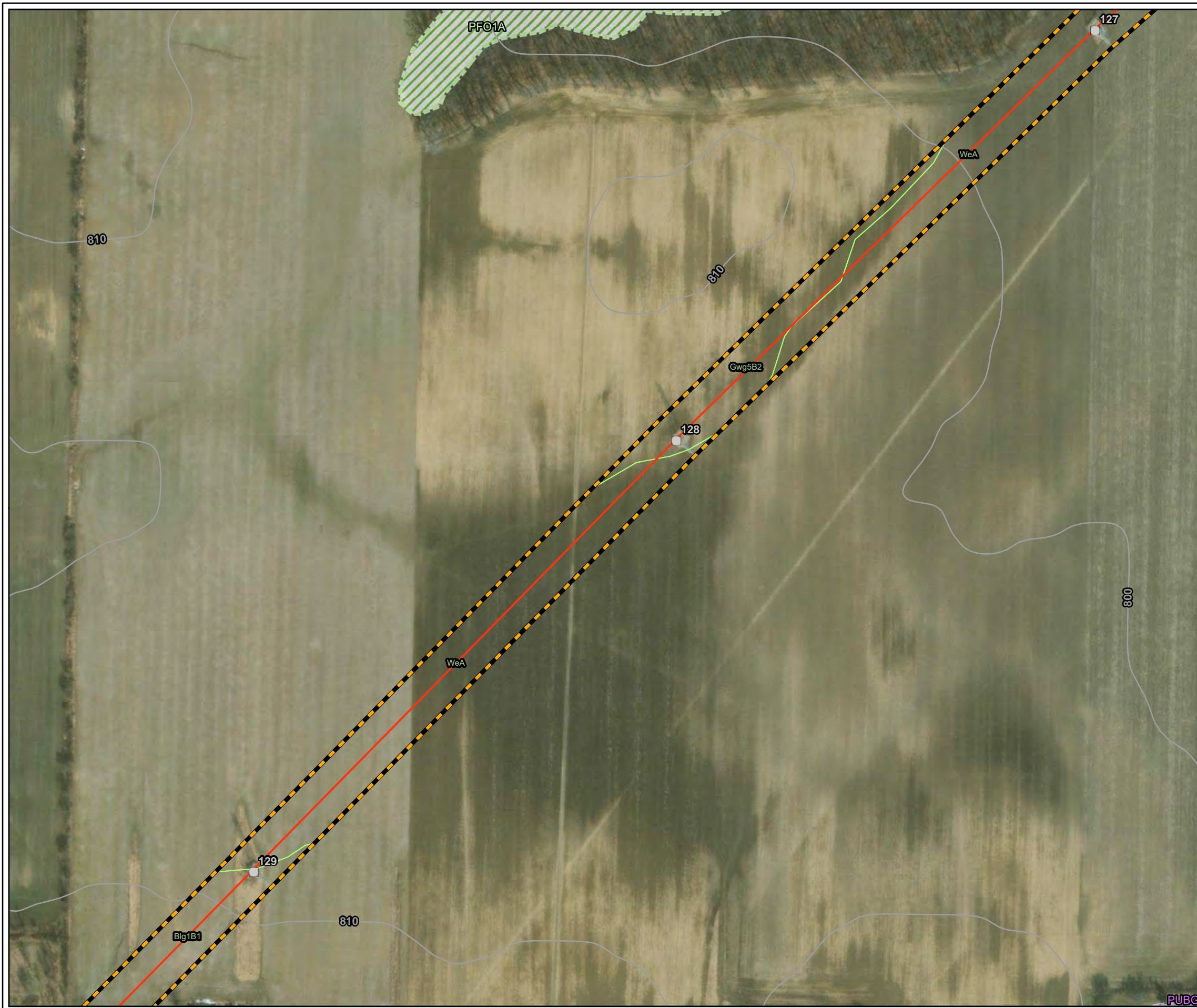
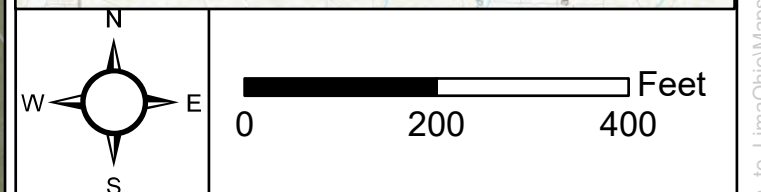


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- Project Centerline
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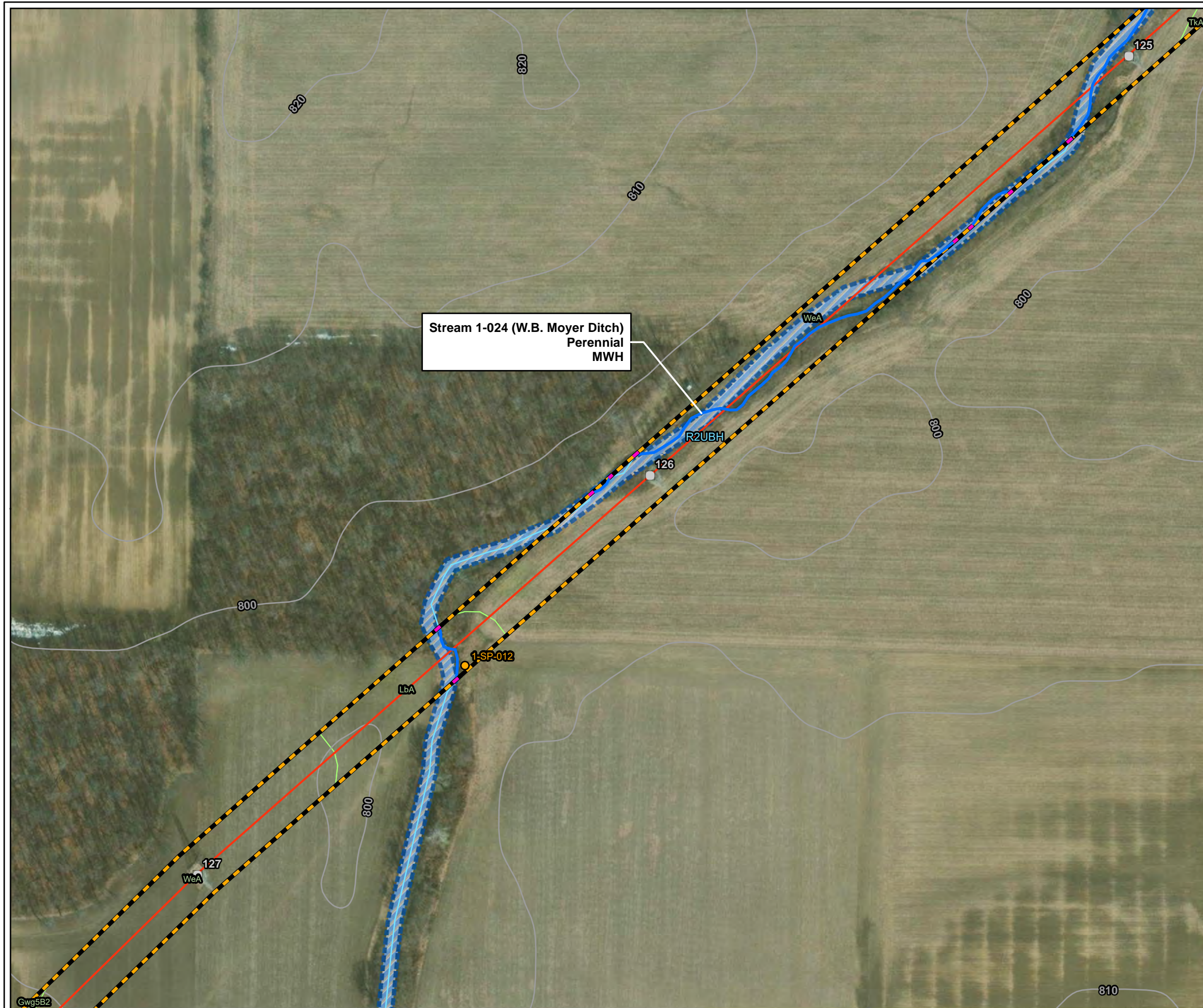










Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

-  Structure Location
-  Resource Continues Off-Site
-  Project Centerline
-  National Hydrography Dataset (NHD) Stream
-  Field-Delineated Stream
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour
- National Wetland Inventory (NWI)**
-  Riverine
- Sample Point**
-  Upland



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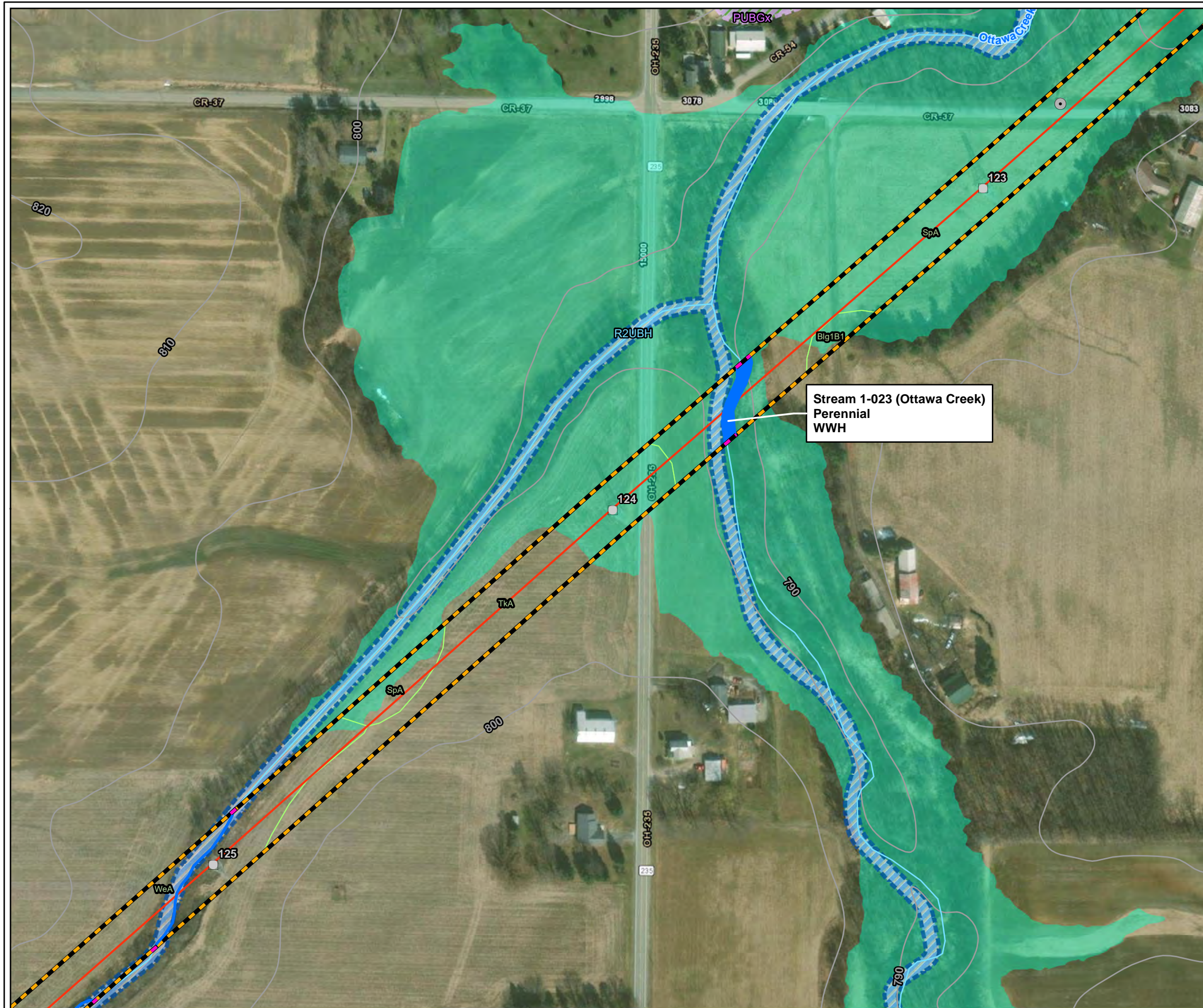
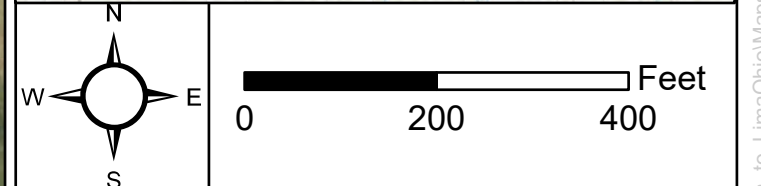


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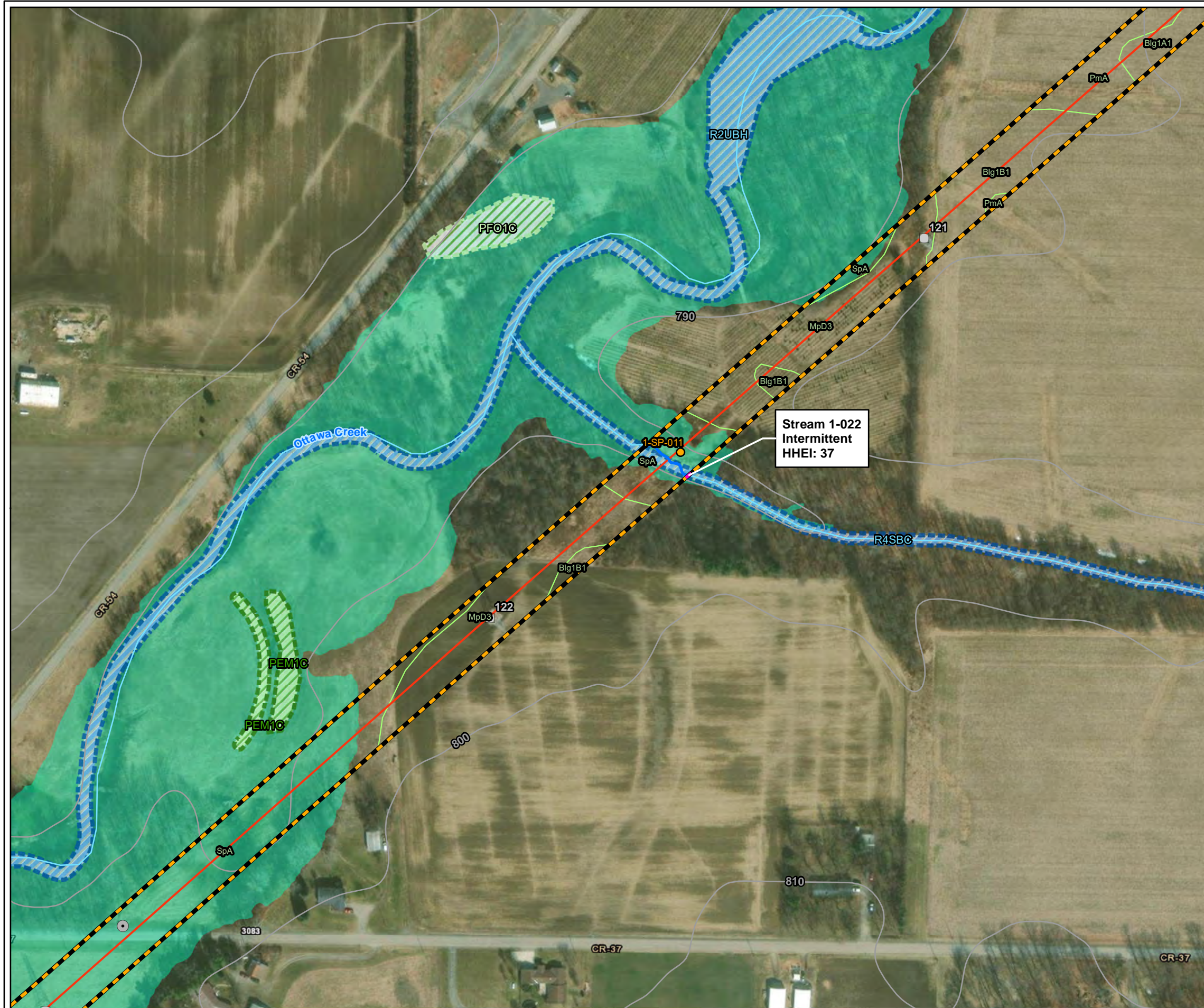
- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
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- Freshwater Pond
- Riverine

Stream 1-023 (Ottawa Creek)
Perennial
WWH



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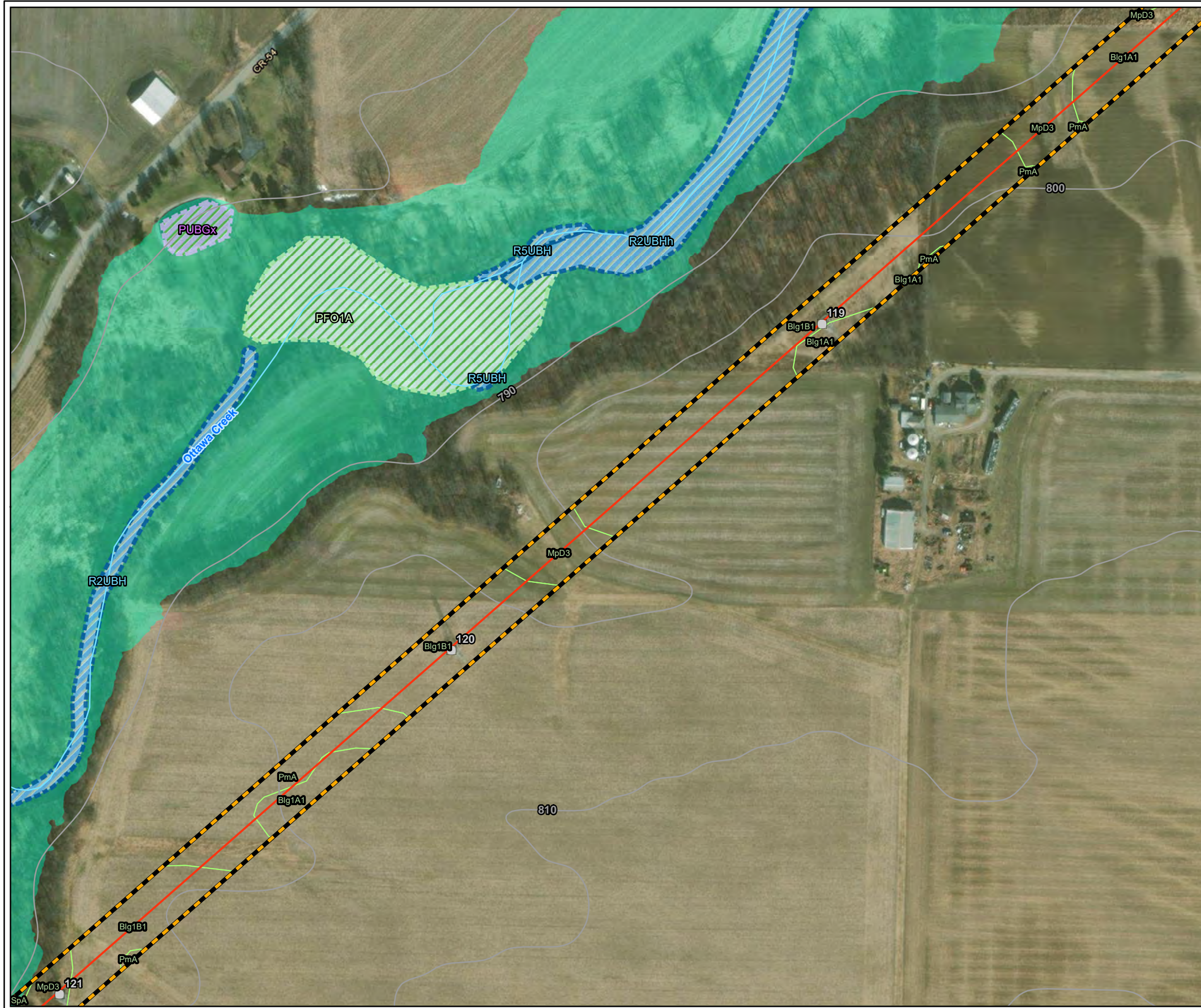
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- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine
- Sample Point**
- Upland



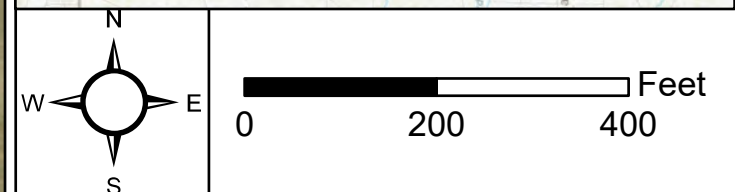
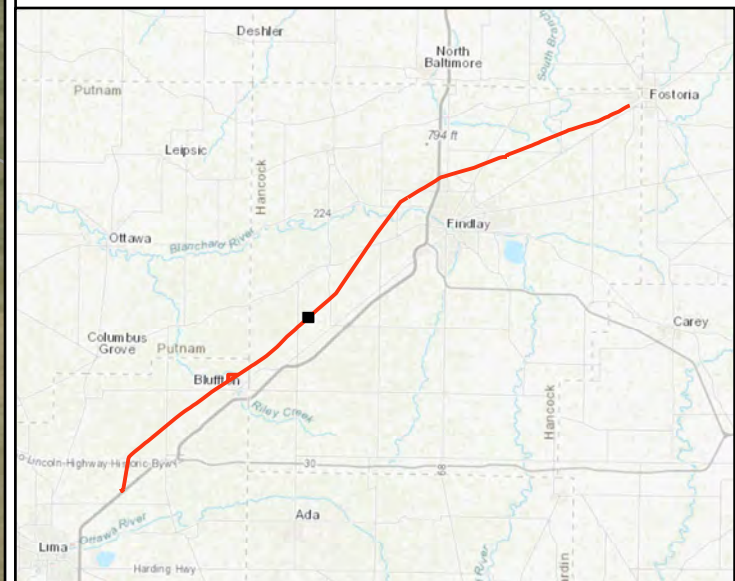
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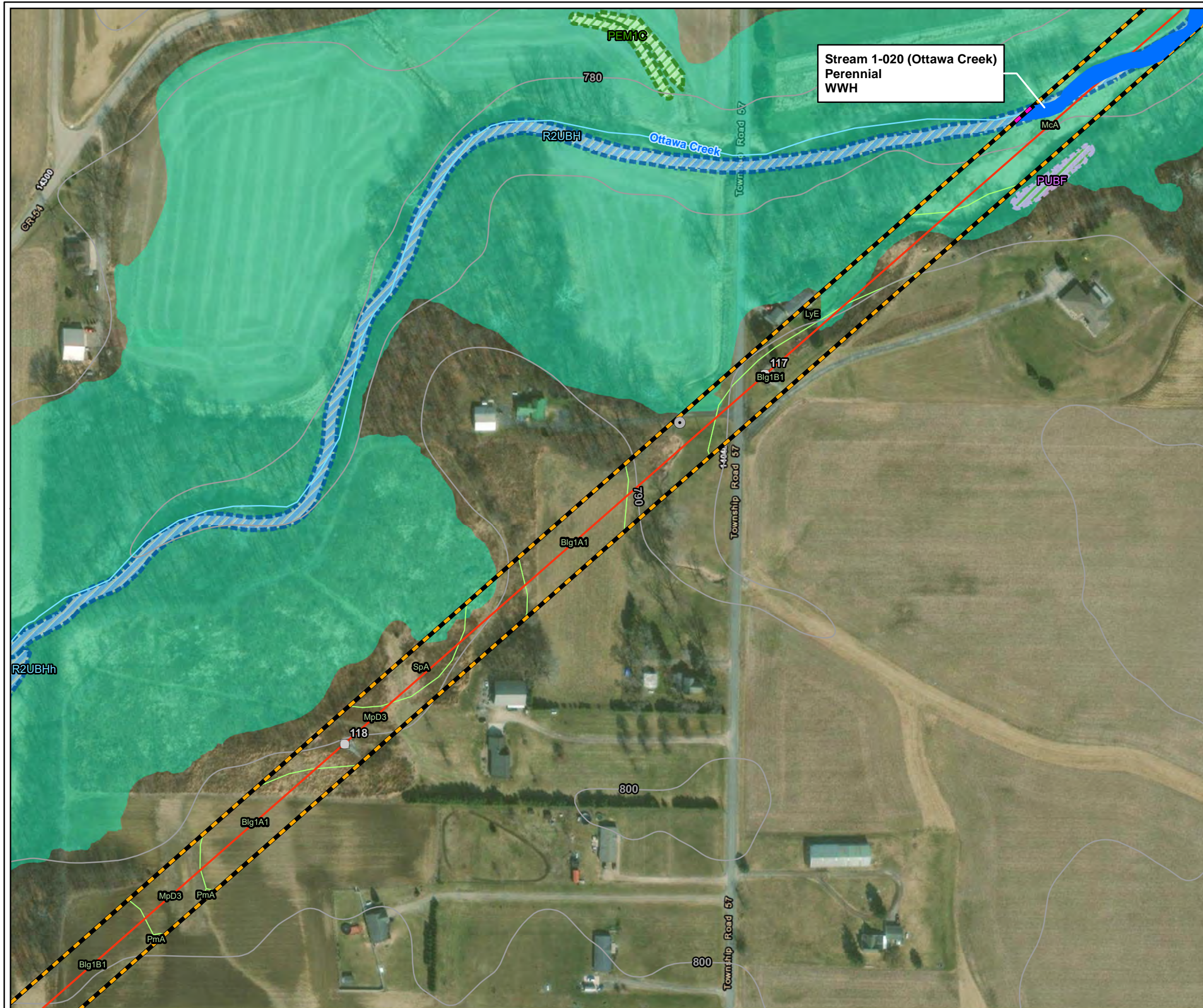
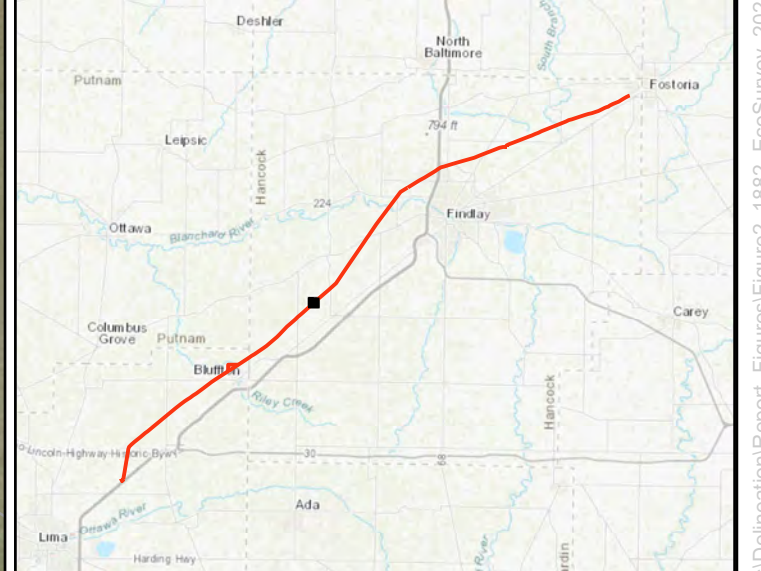


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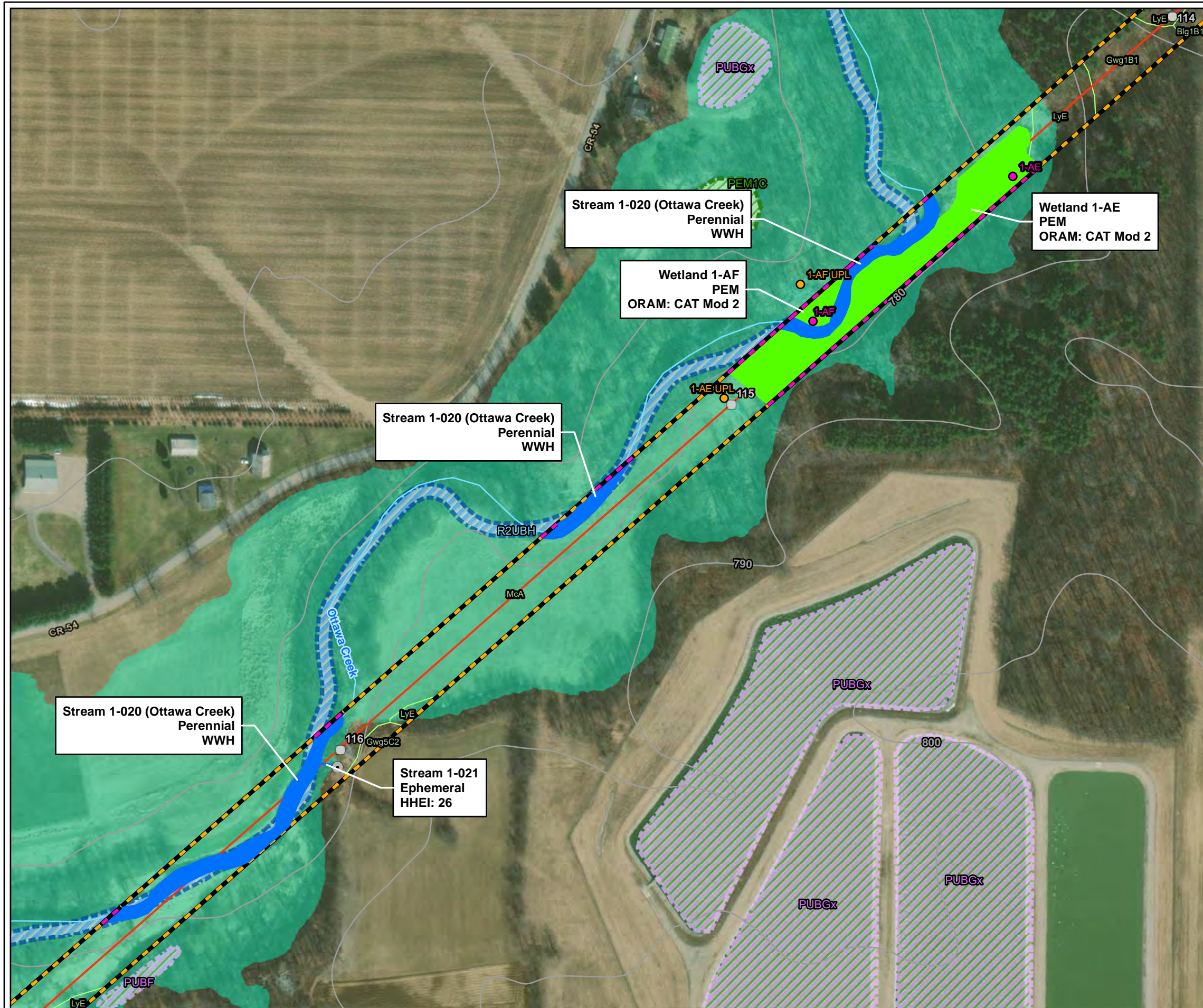
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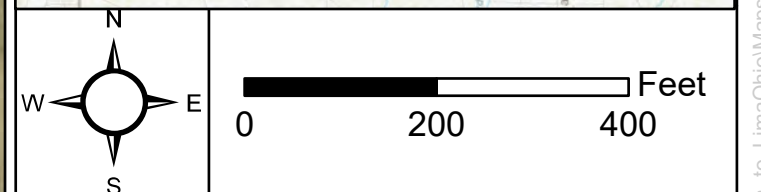
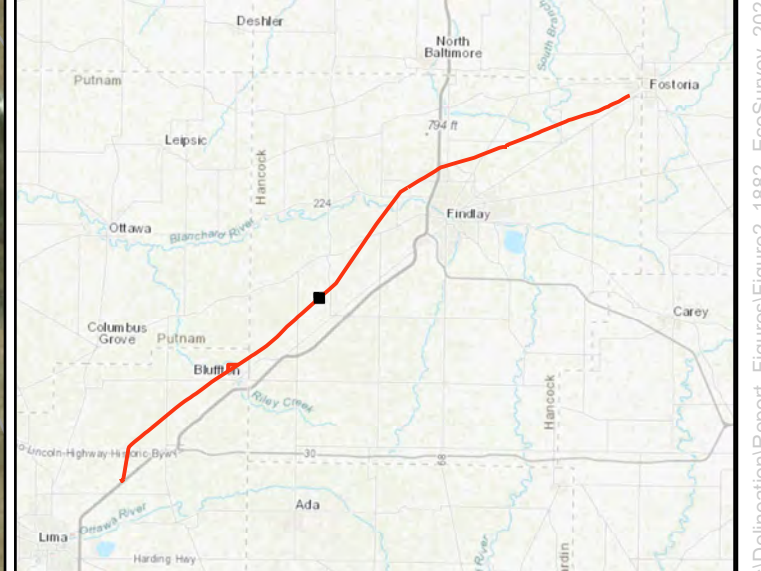
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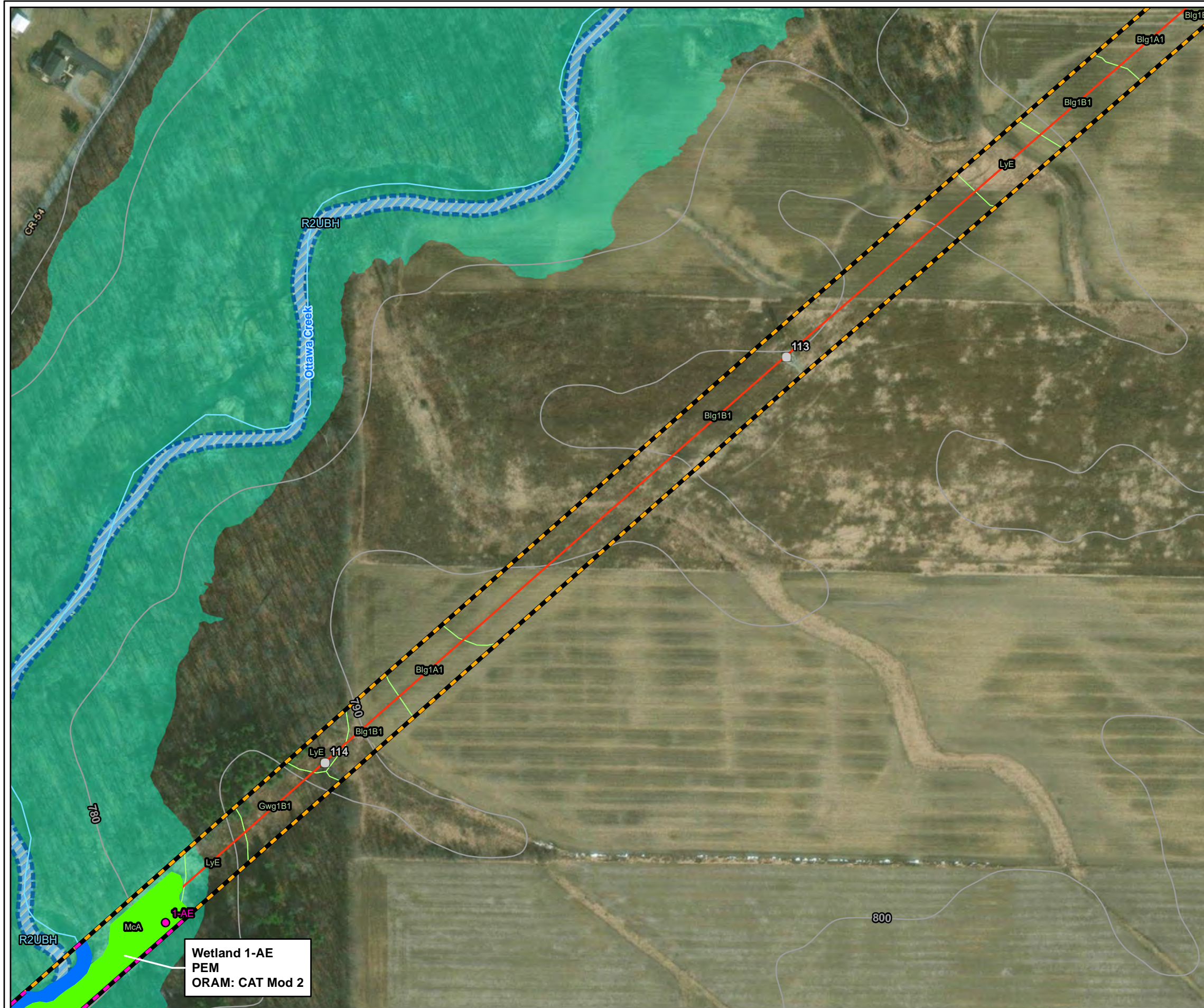
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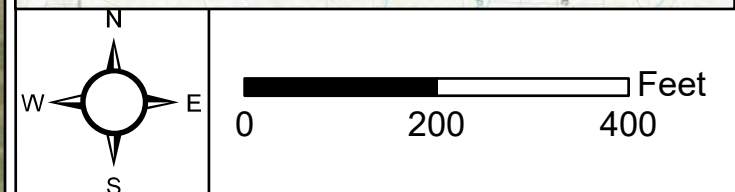
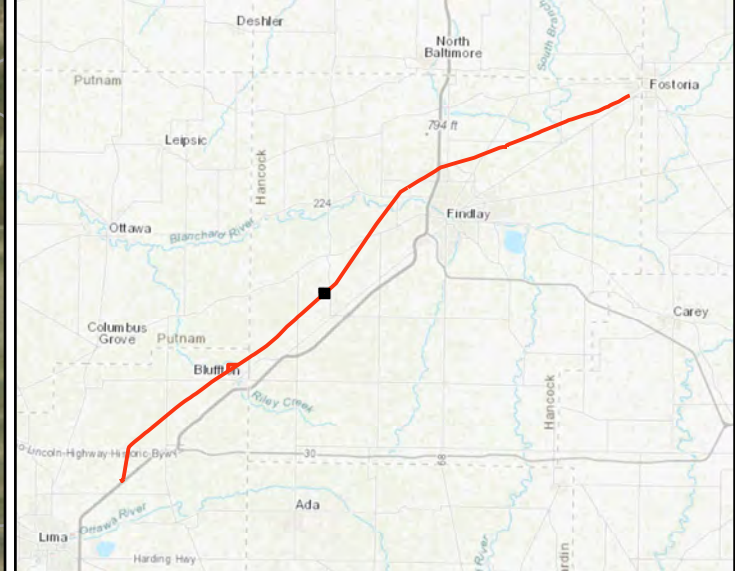
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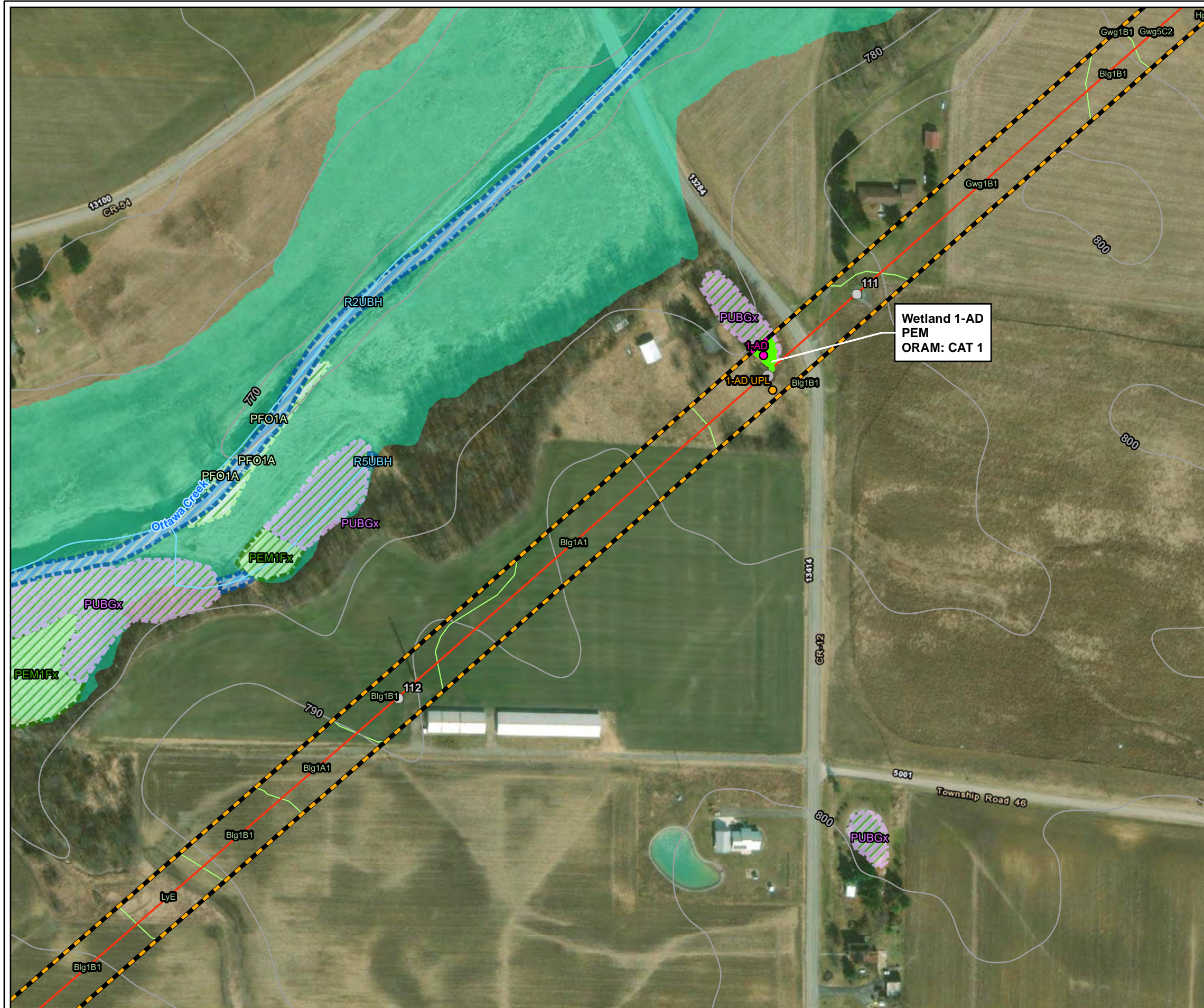


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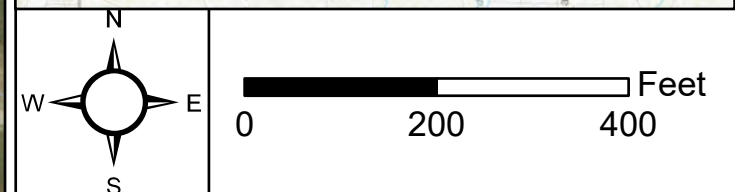
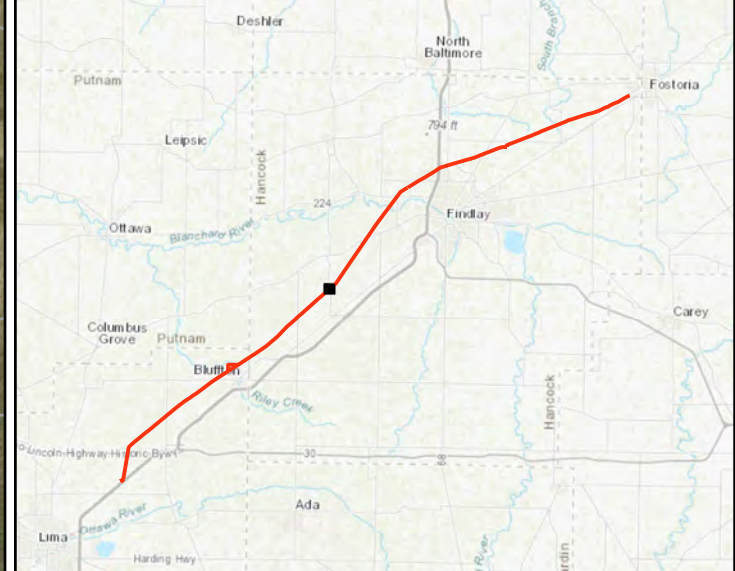
Wetland 1-AE
 PEM
 ORAM: CAT Mod 2

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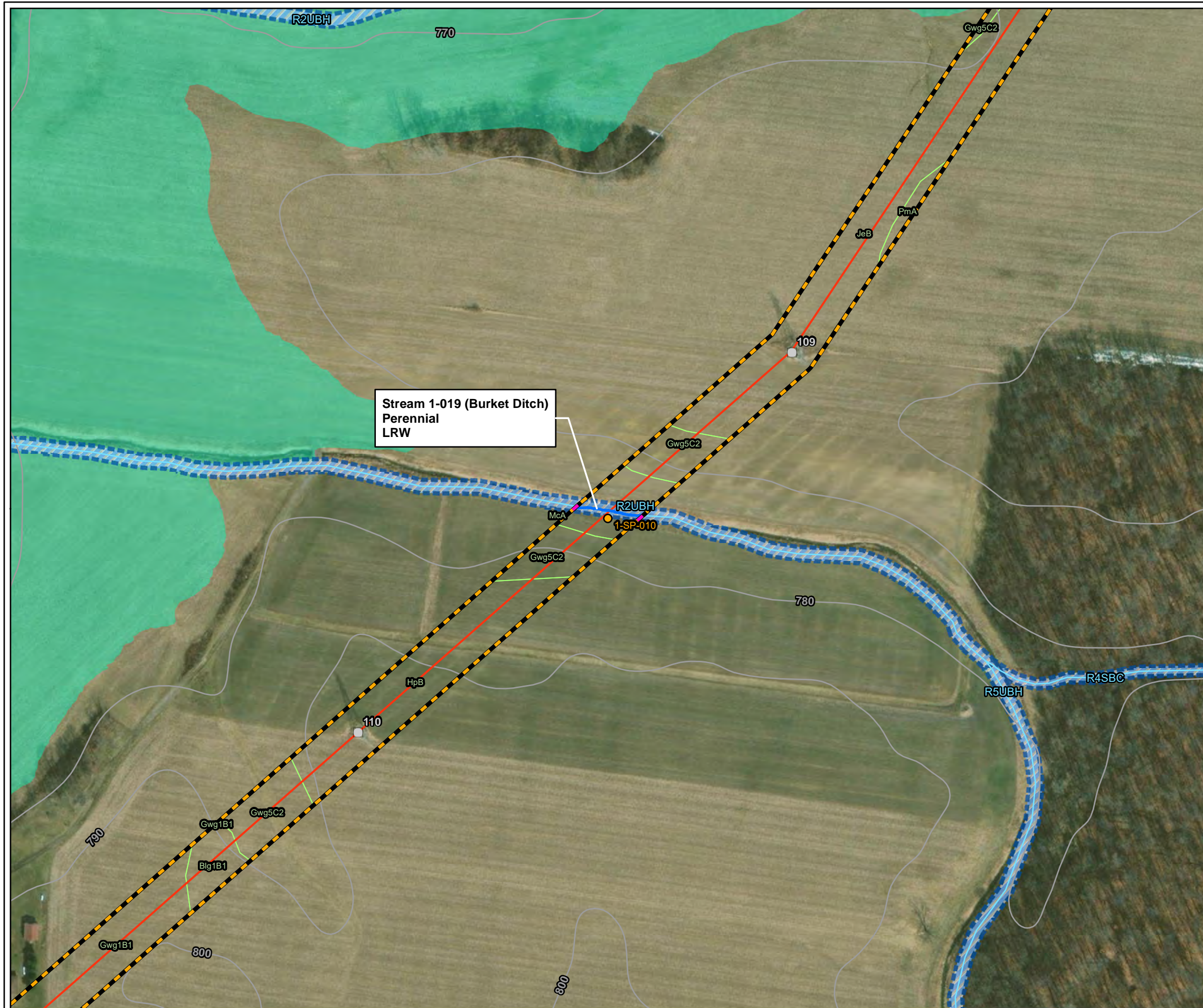
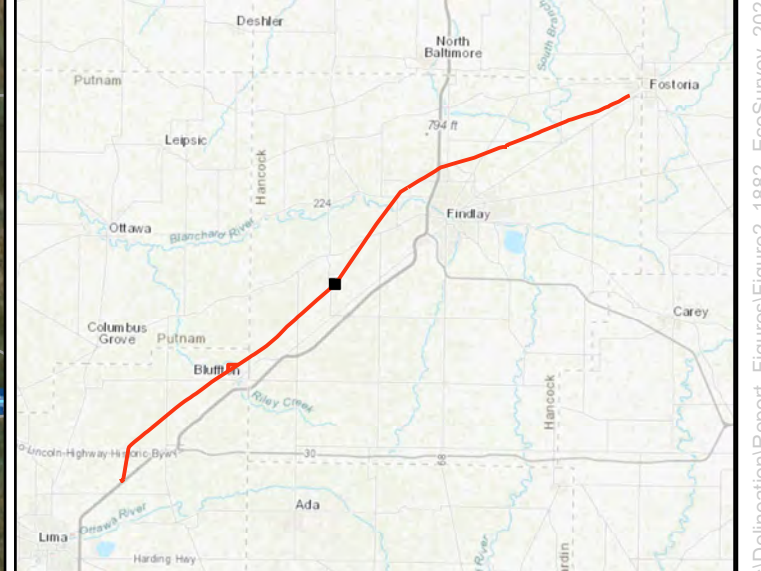


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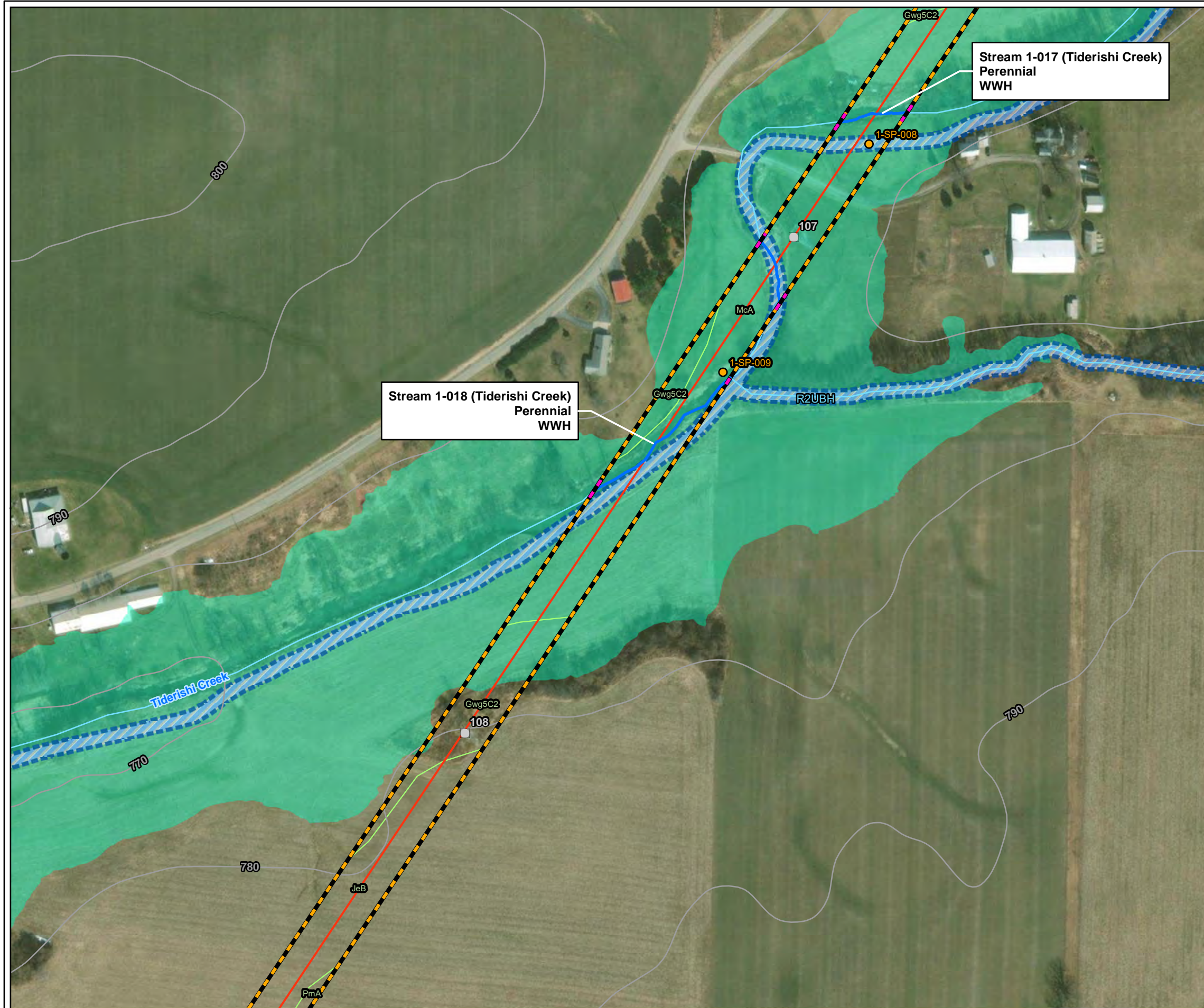


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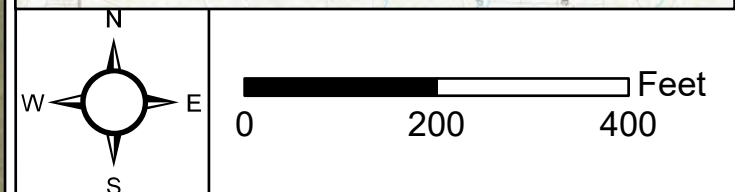
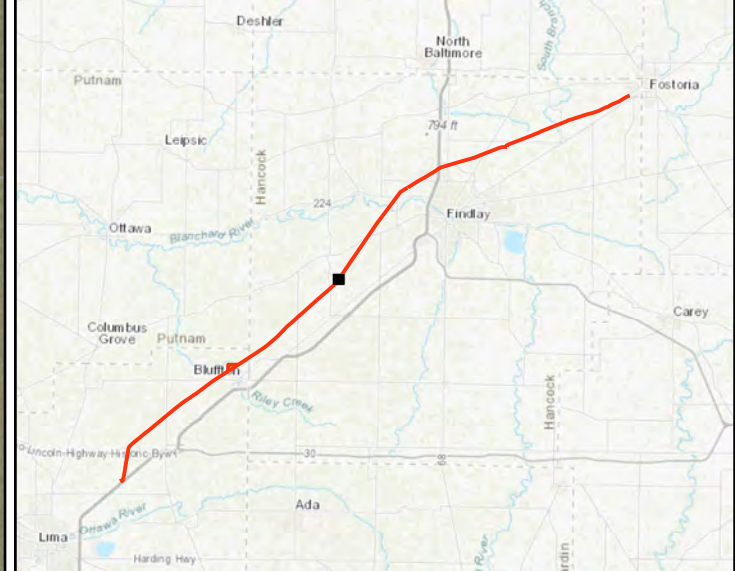
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 Project No. 1882

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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



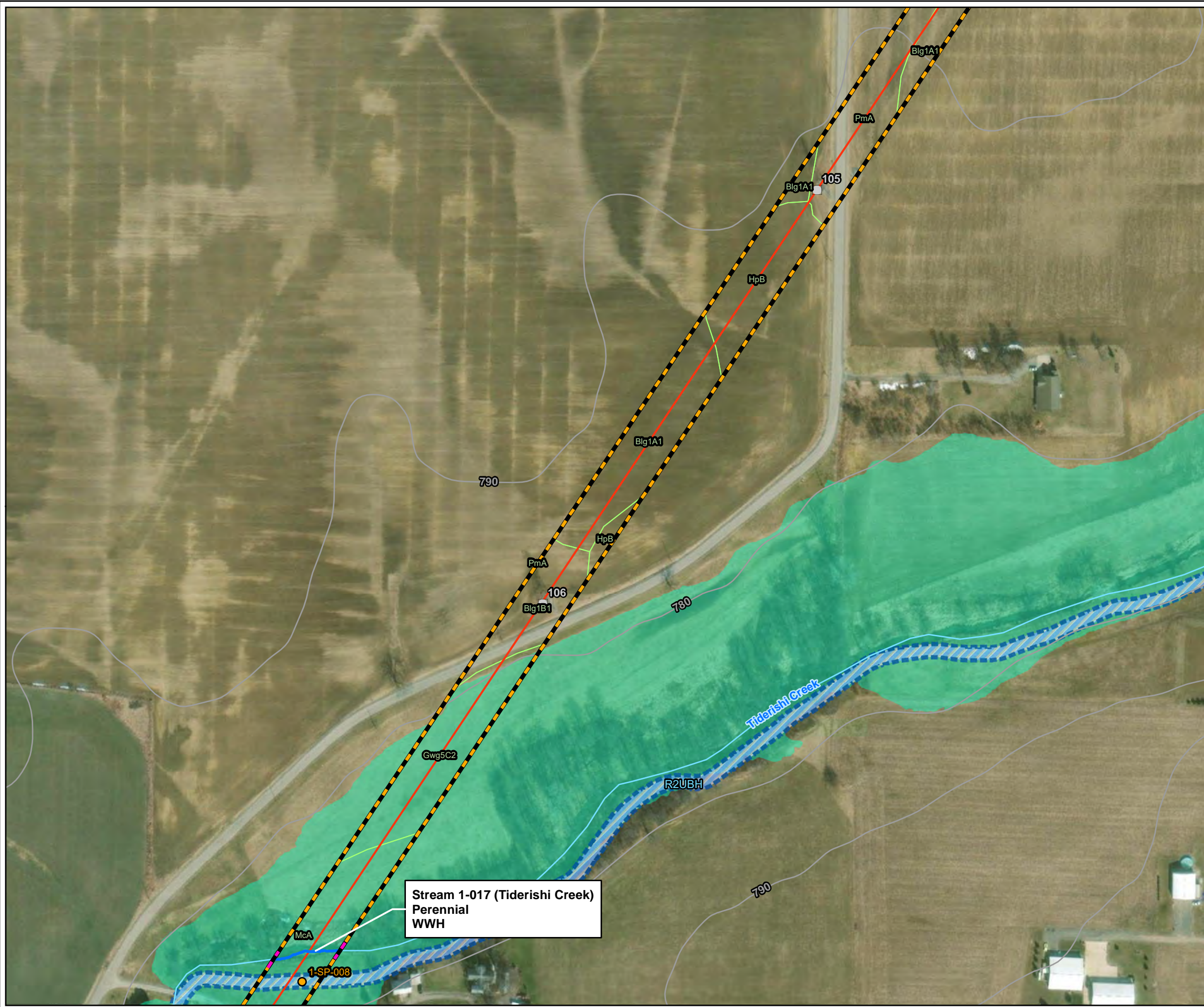
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland



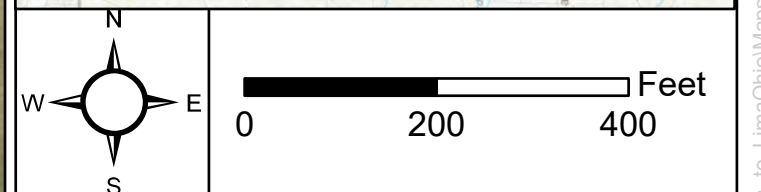
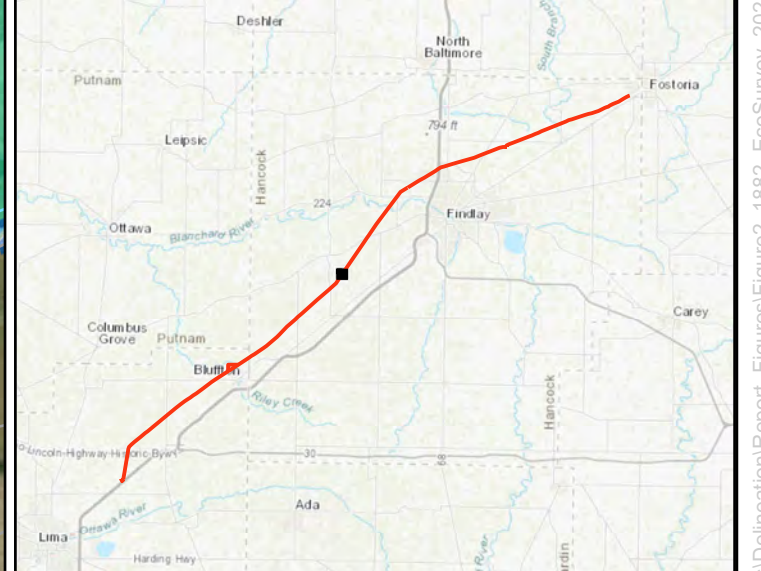
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland



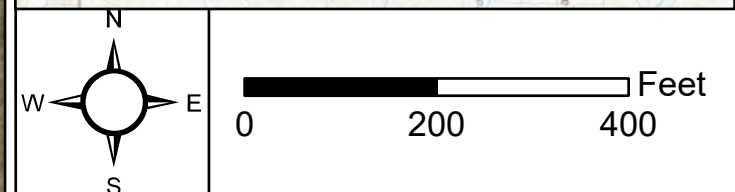
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- ▭ FEMA 100-Year Floodplain
- 10-Foot USGS Contour








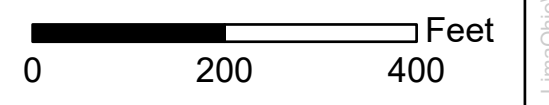
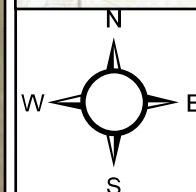
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

-  Structure Location
-  Project Centerline
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour








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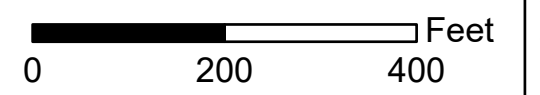
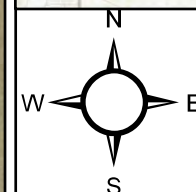


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-  Structure Location
-  Project Centerline
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour



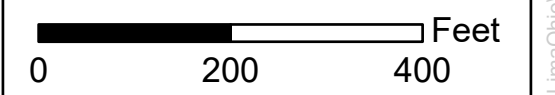
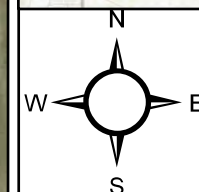
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- Structure Location
- Project Centerline
- Area of Investigation (AOI)
- Soils



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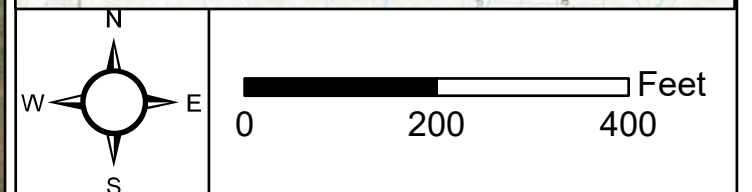
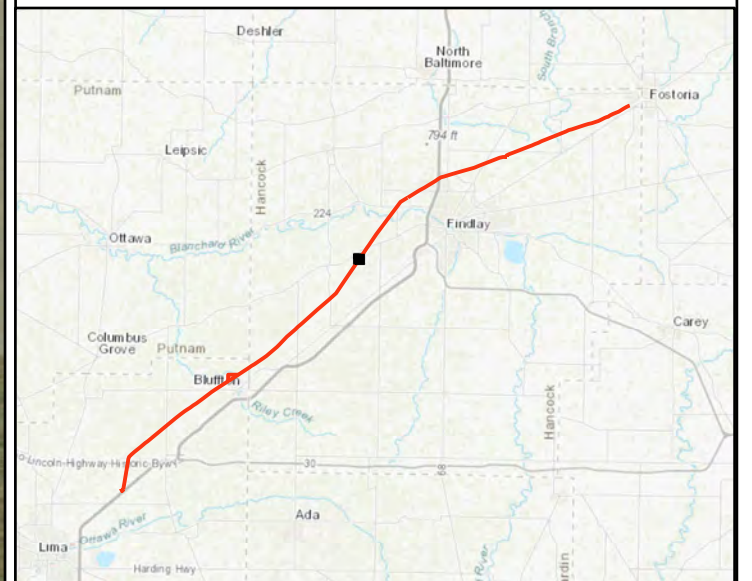
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- Structure Location
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Pond



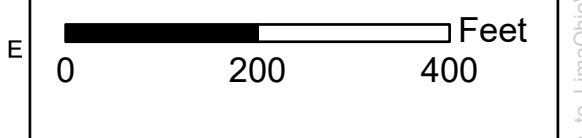
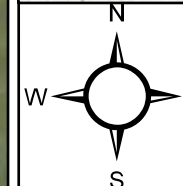
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine

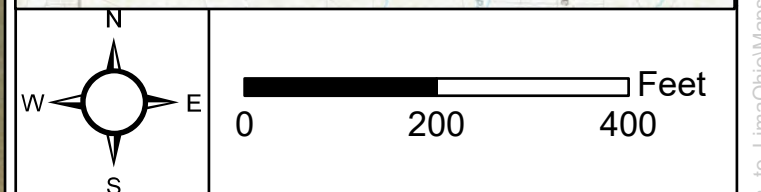


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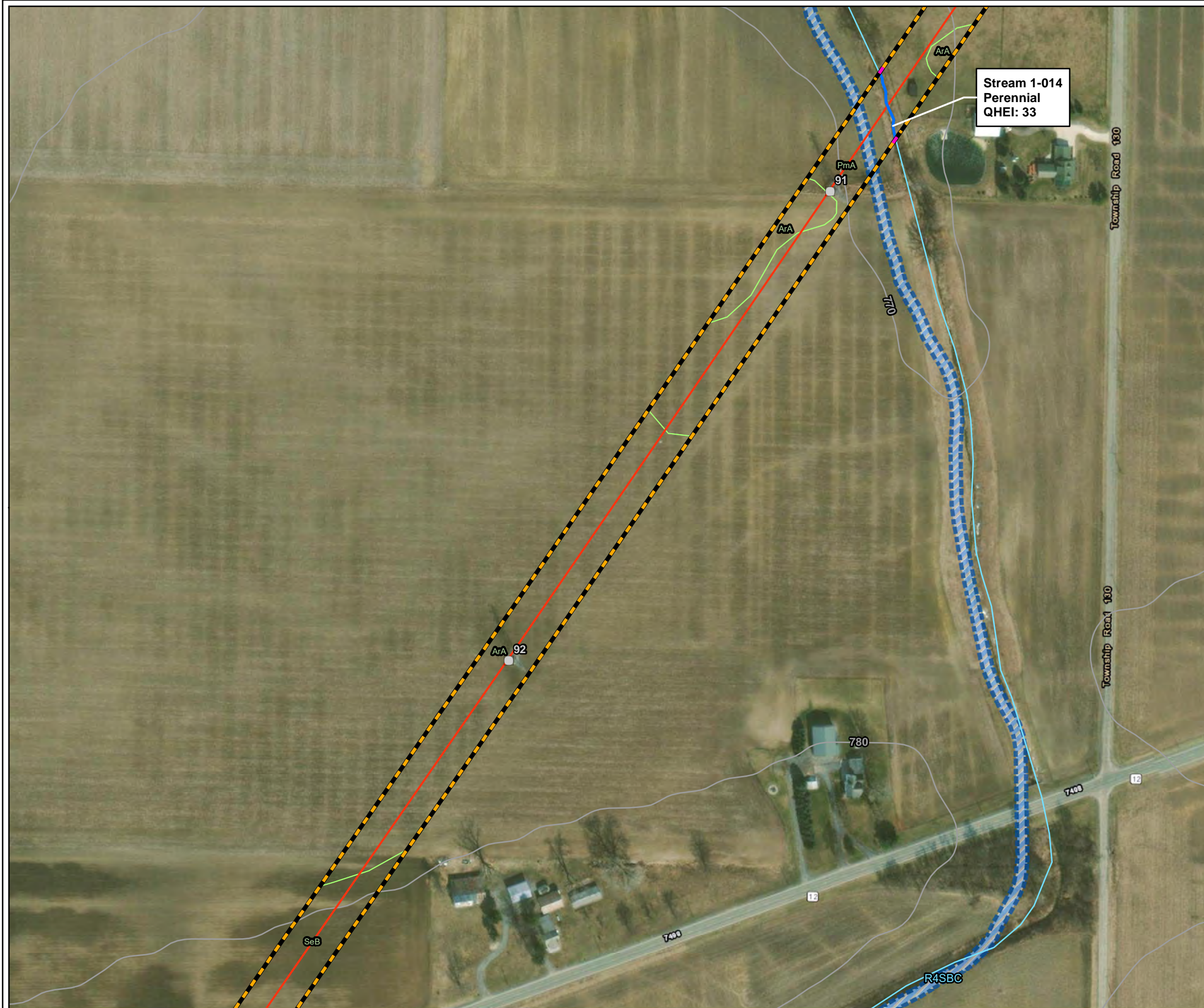
- Structure Location
 - Culvert Location
 - Resource Continues Off-Site
 - Project Centerline
 - National Hydrography Dataset (NHD) Stream
 - Field-Delineated Stream
 - Area of Investigation (AOI)
 - Soils
 - 10-Foot USGS Contour
 - Field-Delineated Pond
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland



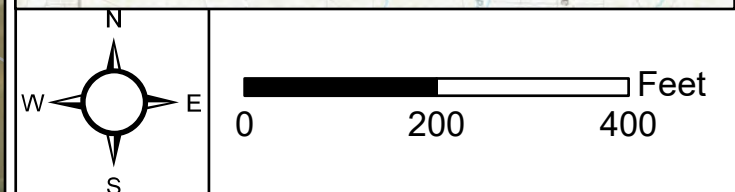
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 - Field-Delineated Stream
 - Area of Investigation (AOI)
 - Soils
 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine



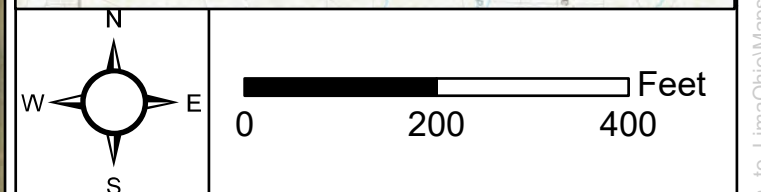
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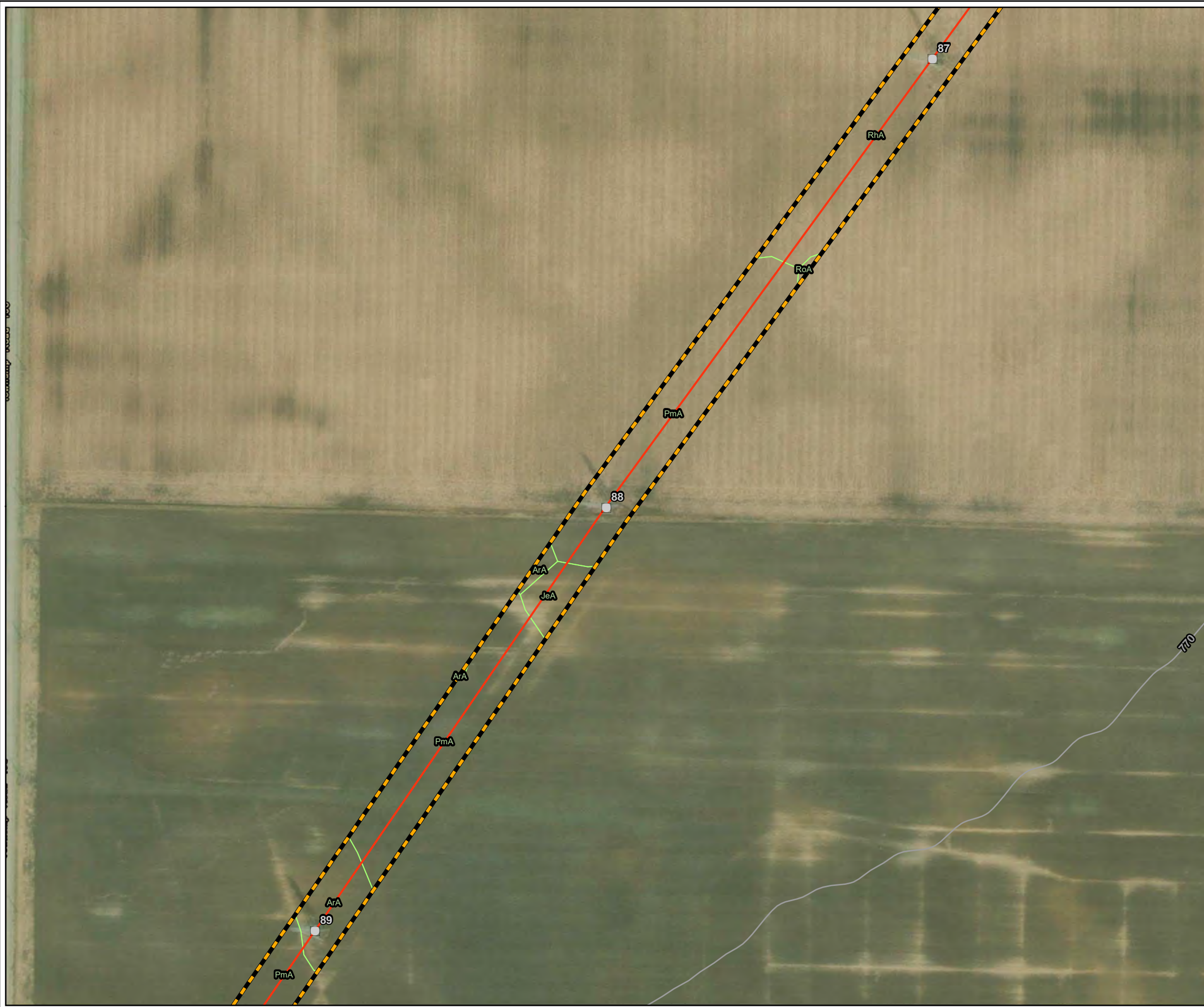
- Structure Location
 - Resource Continues Off-Site
 - Project Centerline
 - National Hydrography Dataset (NHD) Stream
 - Field-Delineated Stream
 - Area of Investigation (AOI)
 - Soils
 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine



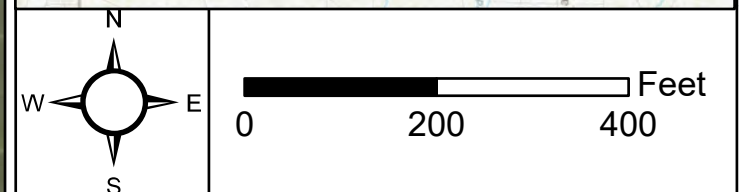
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- Structure Location
- Project Centerline
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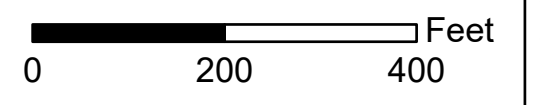
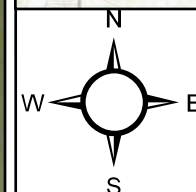


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- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour

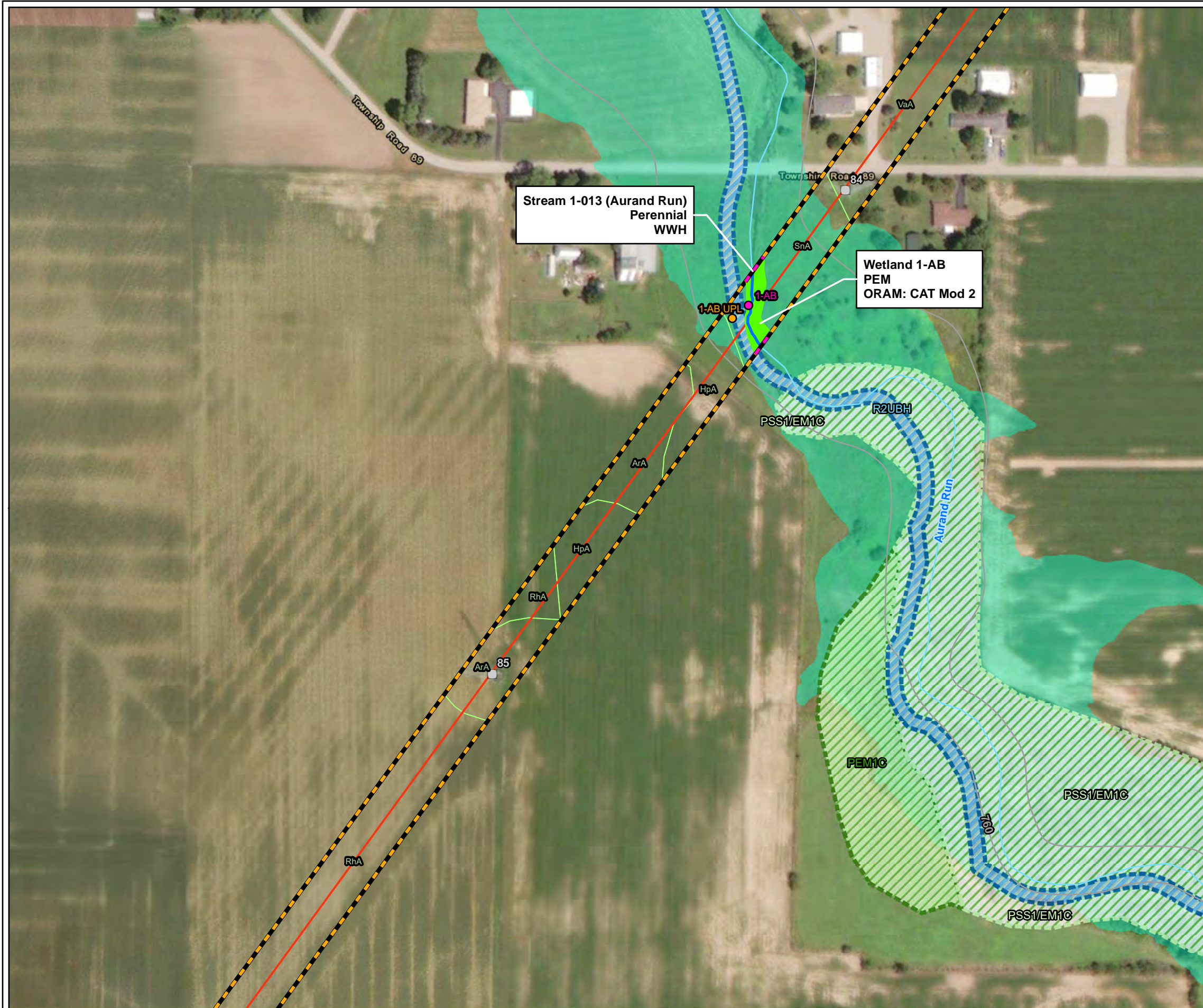


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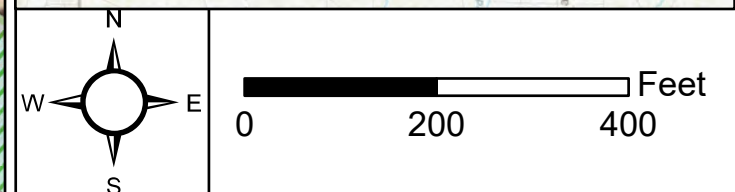
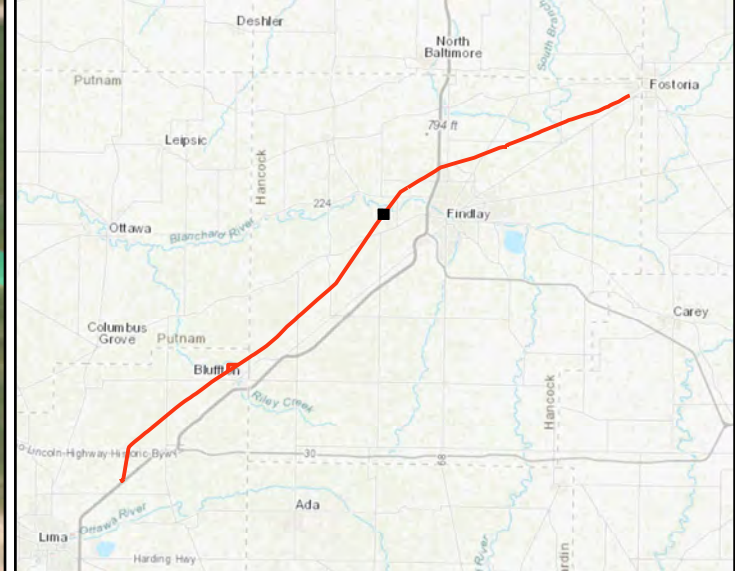


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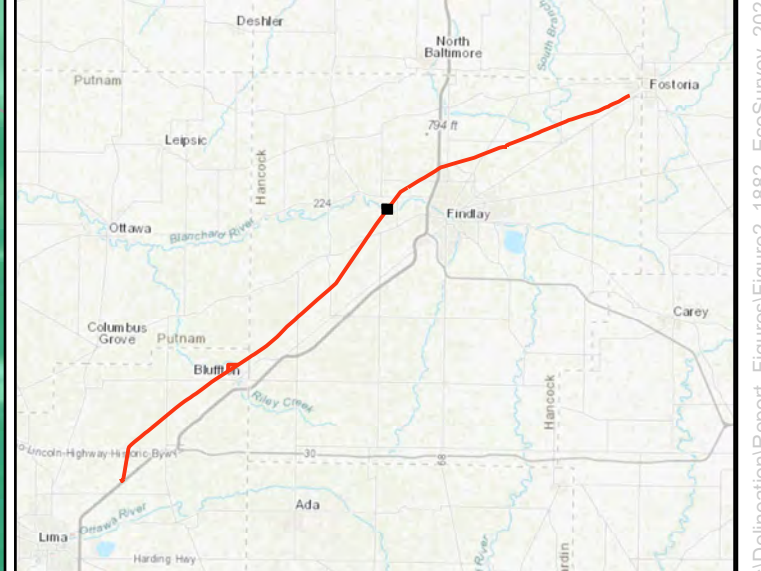
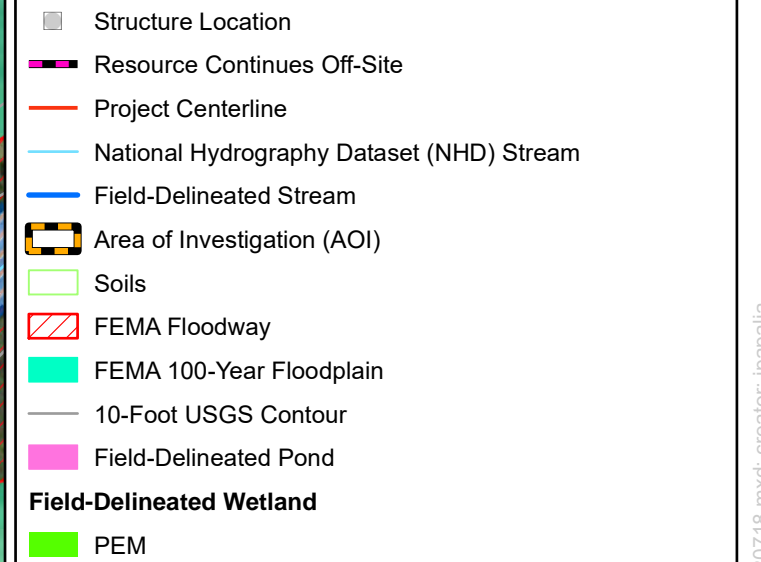
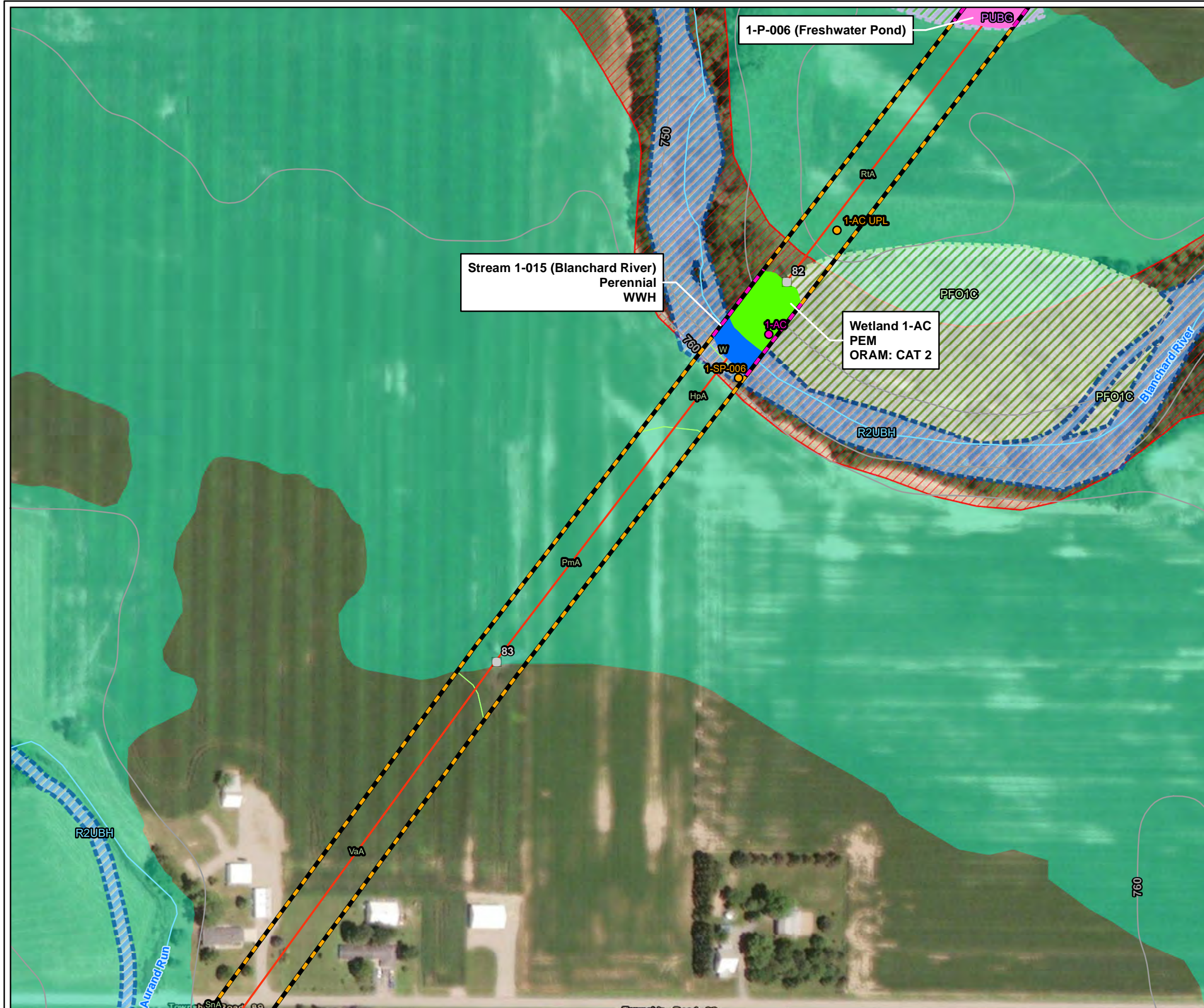
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine
- Sample Point**
- Upland
- Wetland



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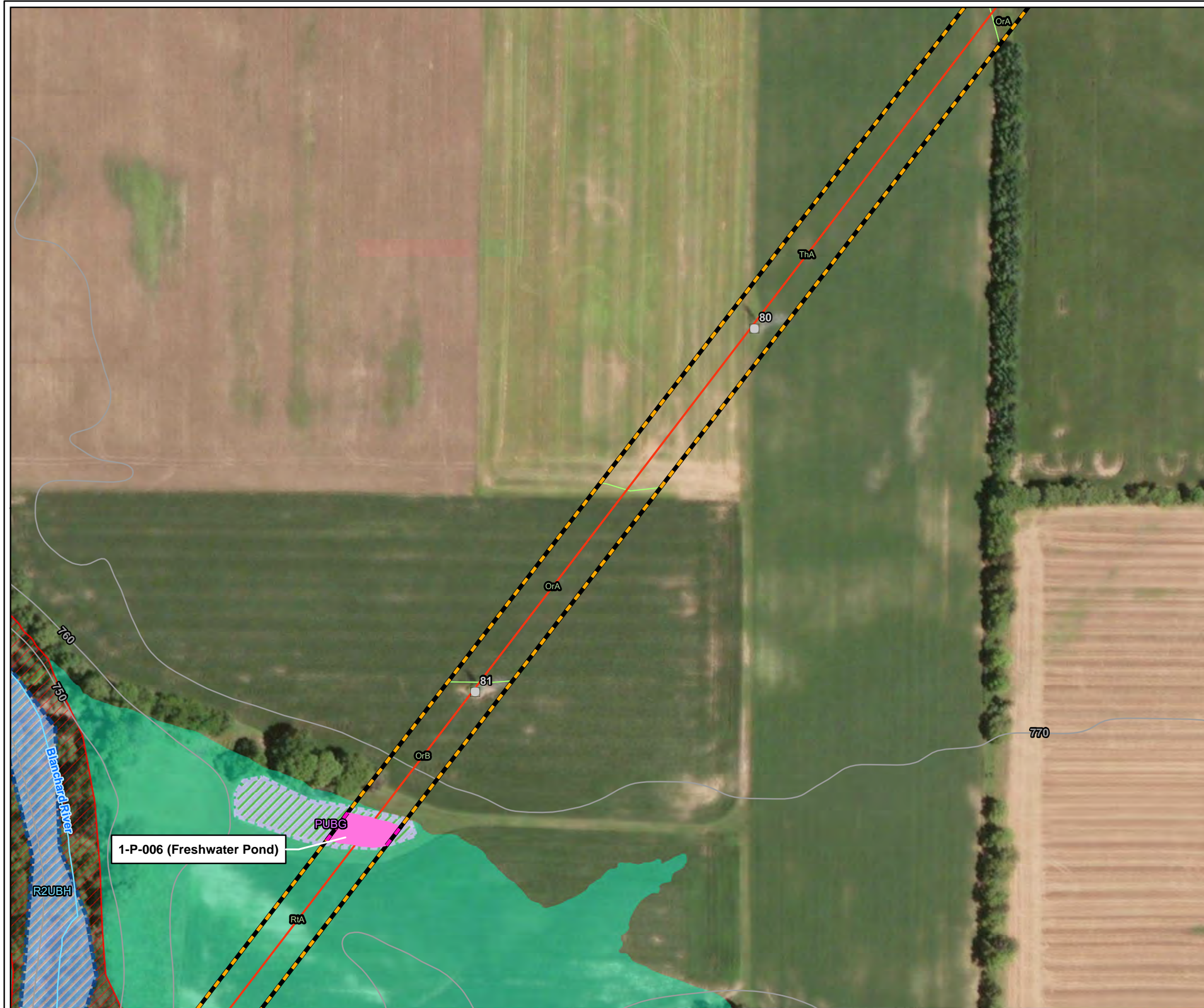
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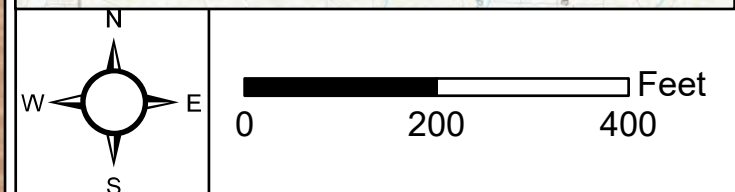
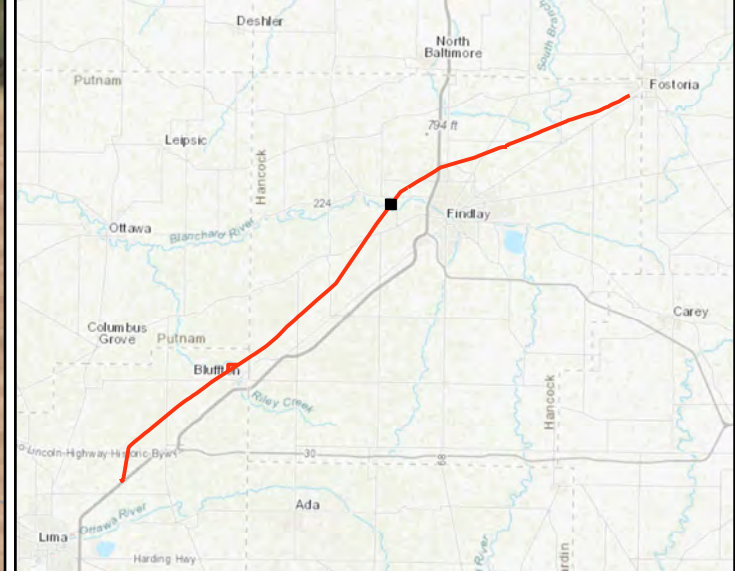
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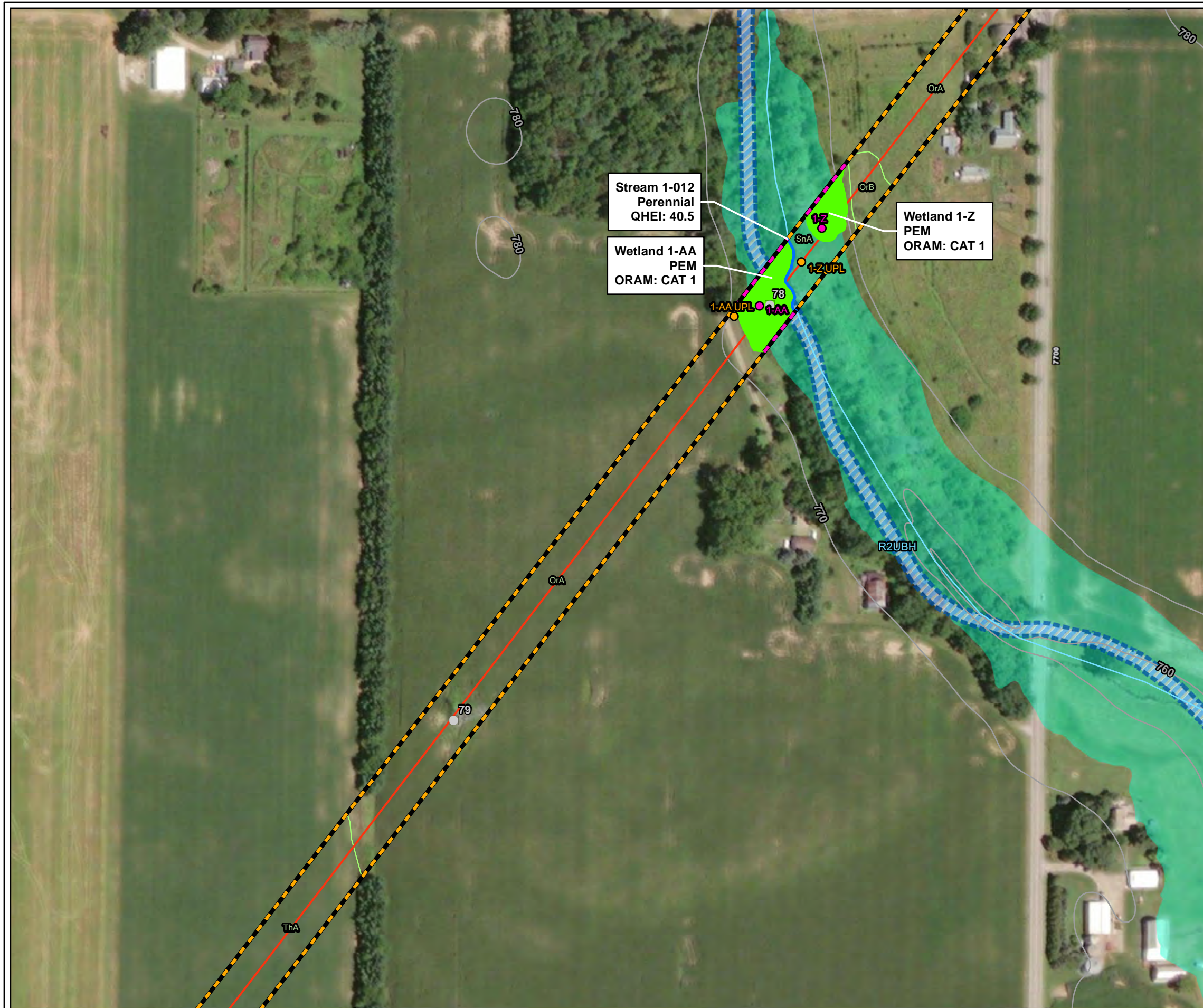


- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- FEMA Floodway
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- Field-Delineated Pond
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine

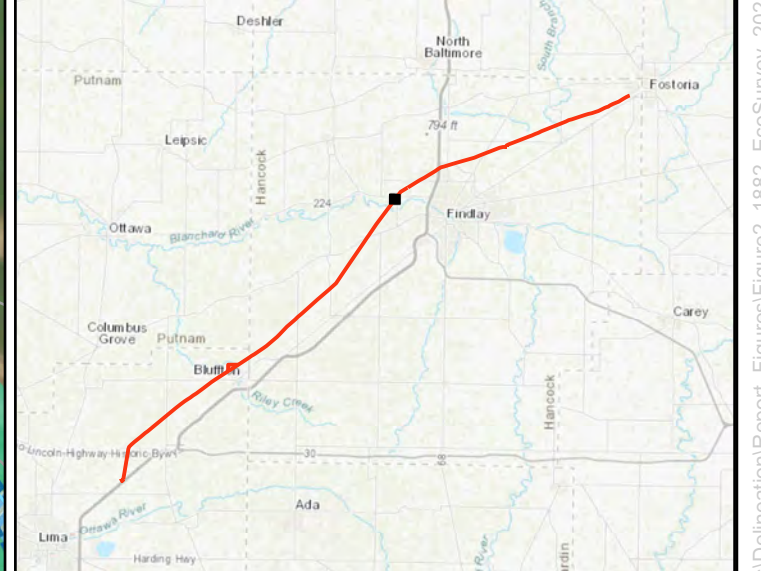


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- National Hydrography Dataset (NHD) Stream
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- Field-Delineated Wetland**
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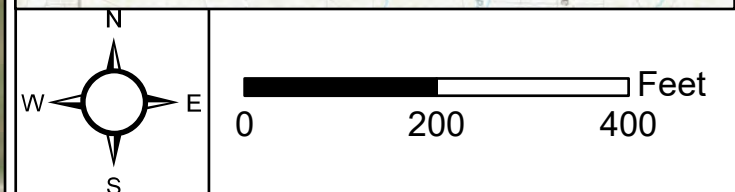
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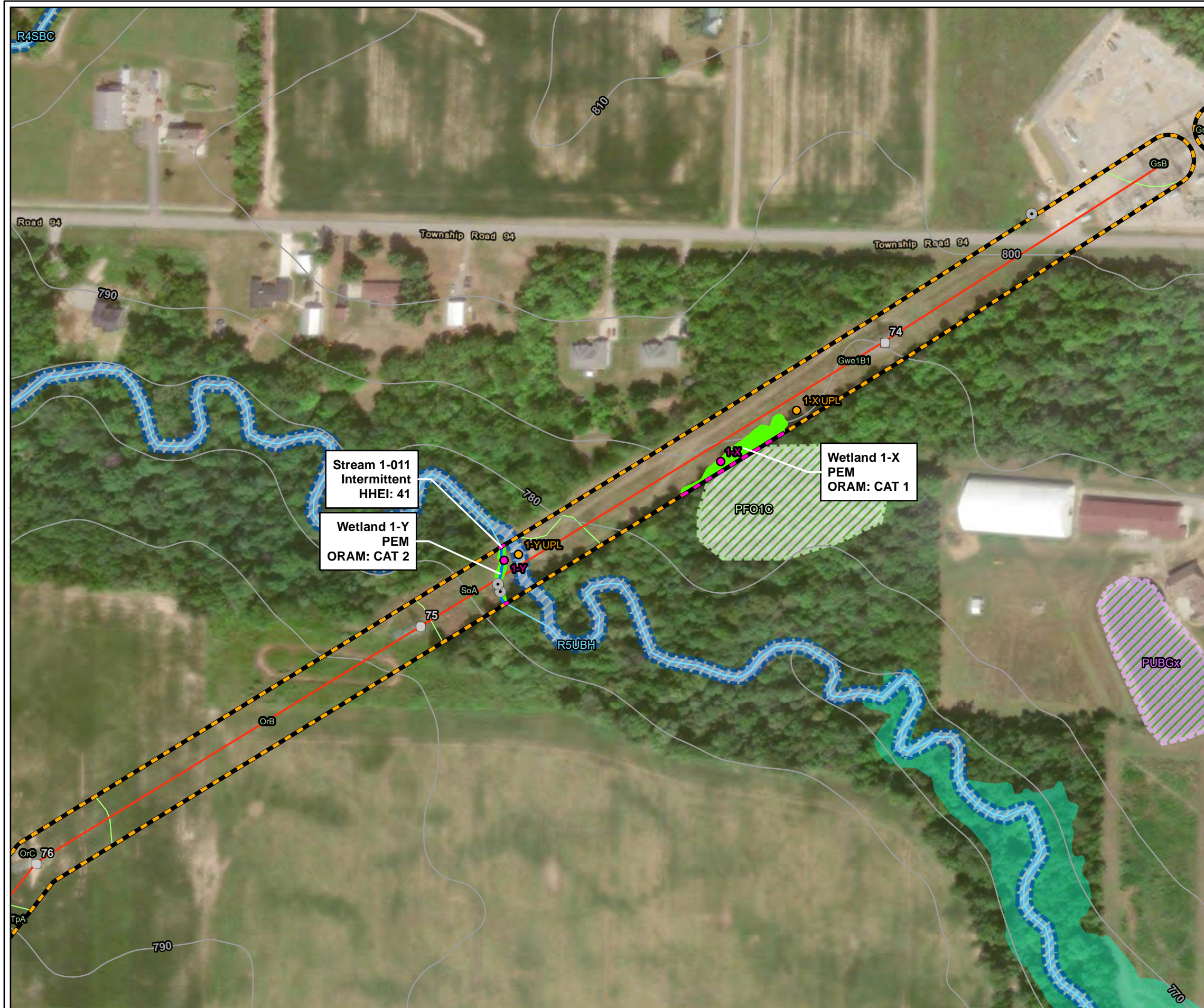
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- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
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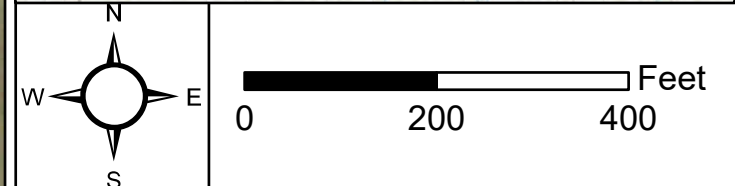
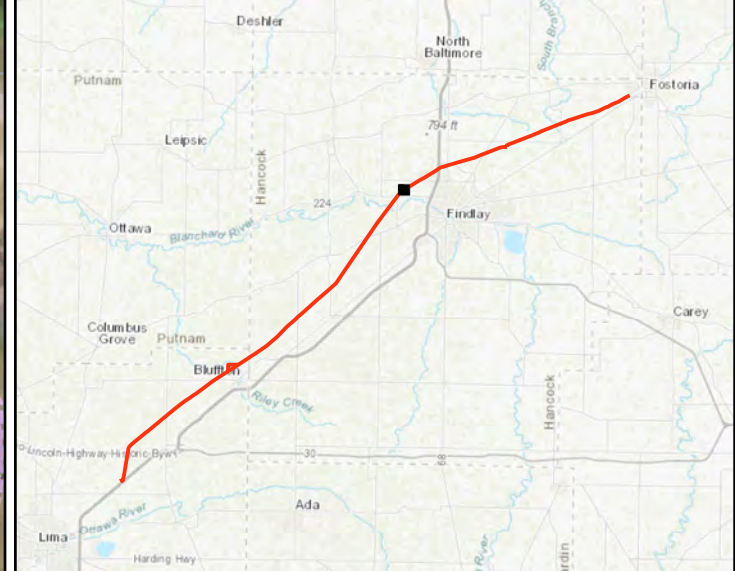
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
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- Sample Point**
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- Wetland

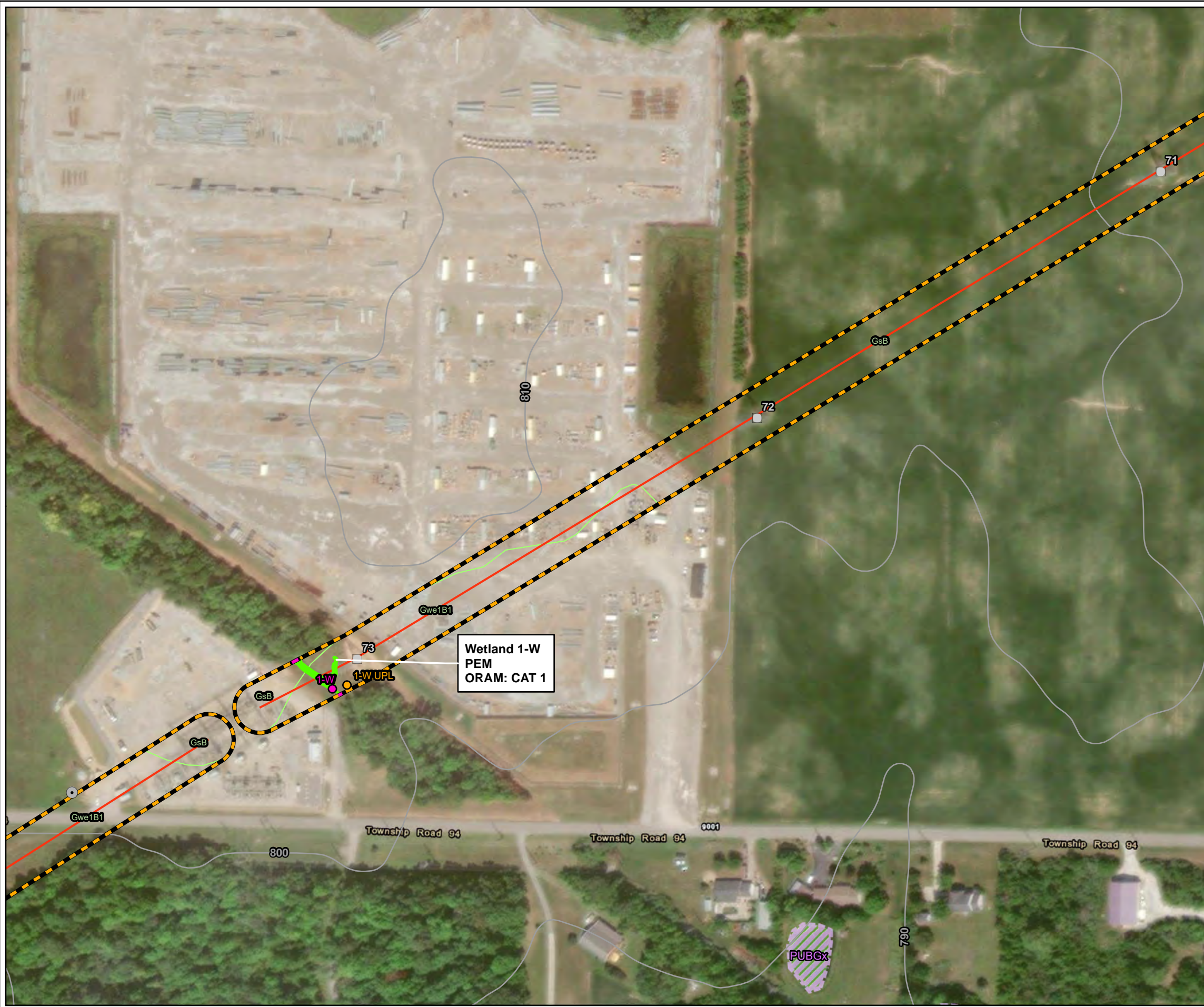


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 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

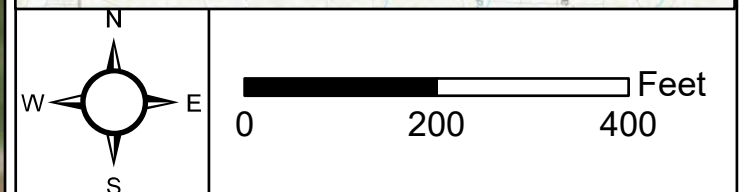
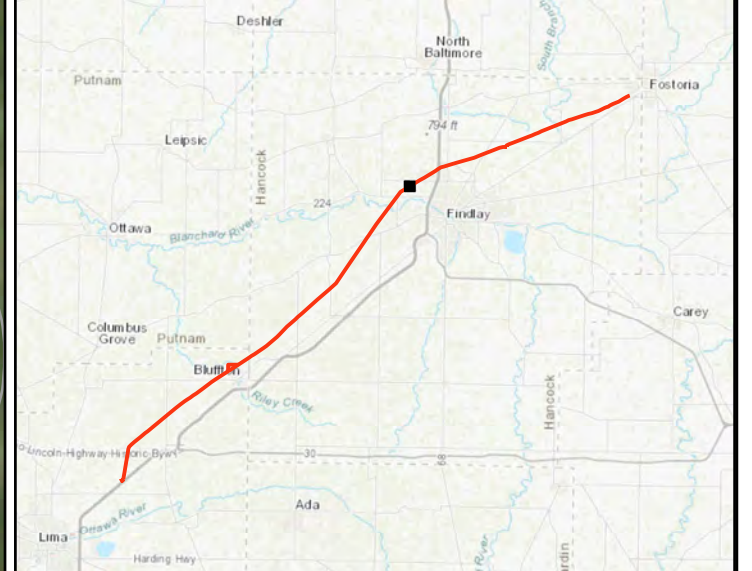
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- ▨ Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond
- Sample Point**
- Upland
- Wetland



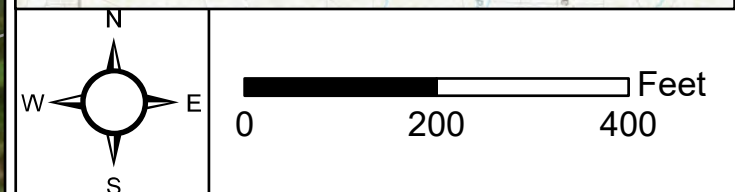
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- Structure Location
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 - Project Centerline
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 - Field-Delineated Stream
 - ▭ Area of Investigation (AOI)
 - ▭ Soils
 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond
 - ▨ Riverine



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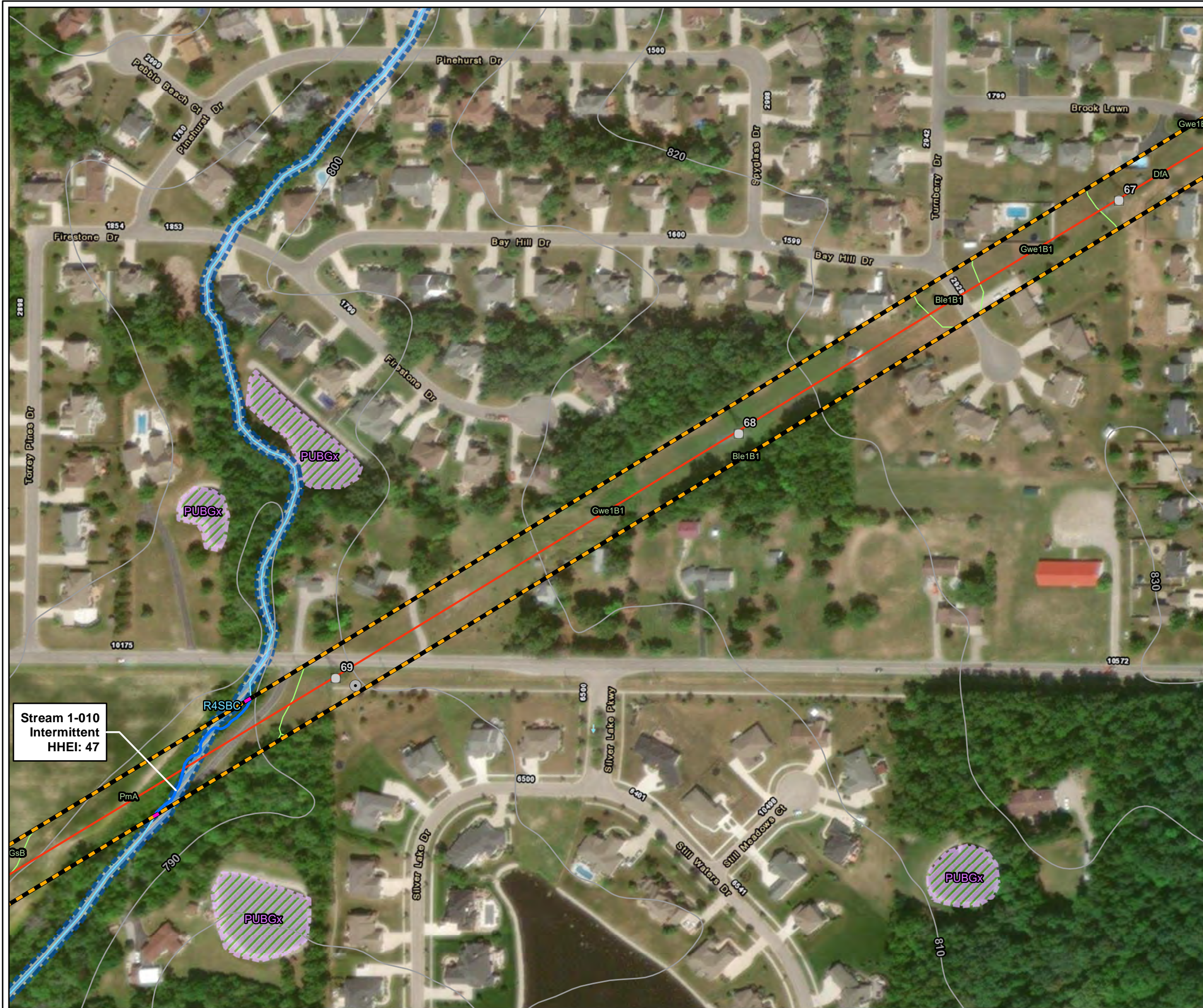
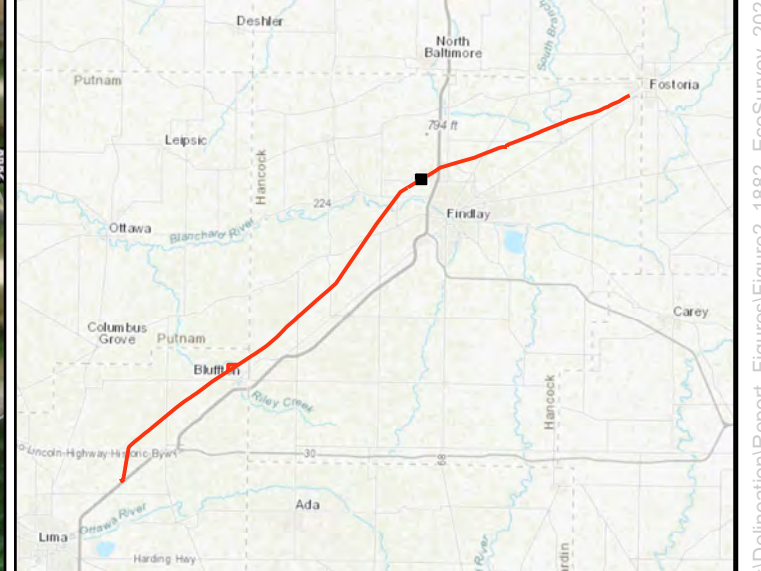


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- Structure Location
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 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond
 - ▨ Riverine



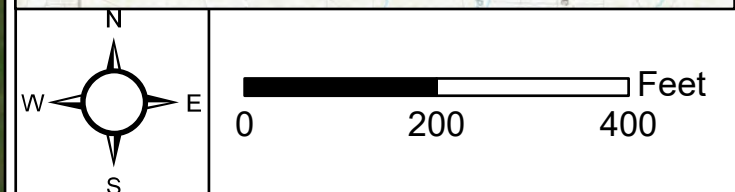
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- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond

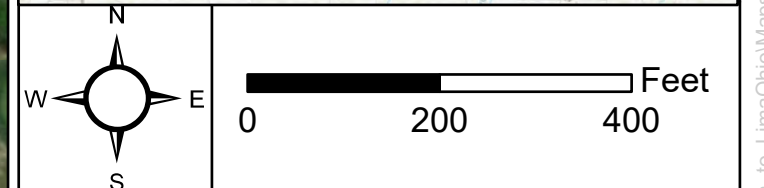
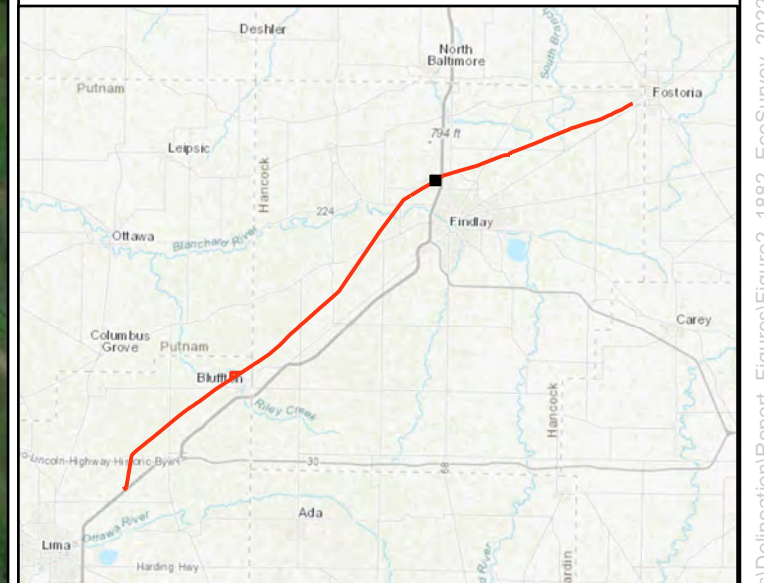


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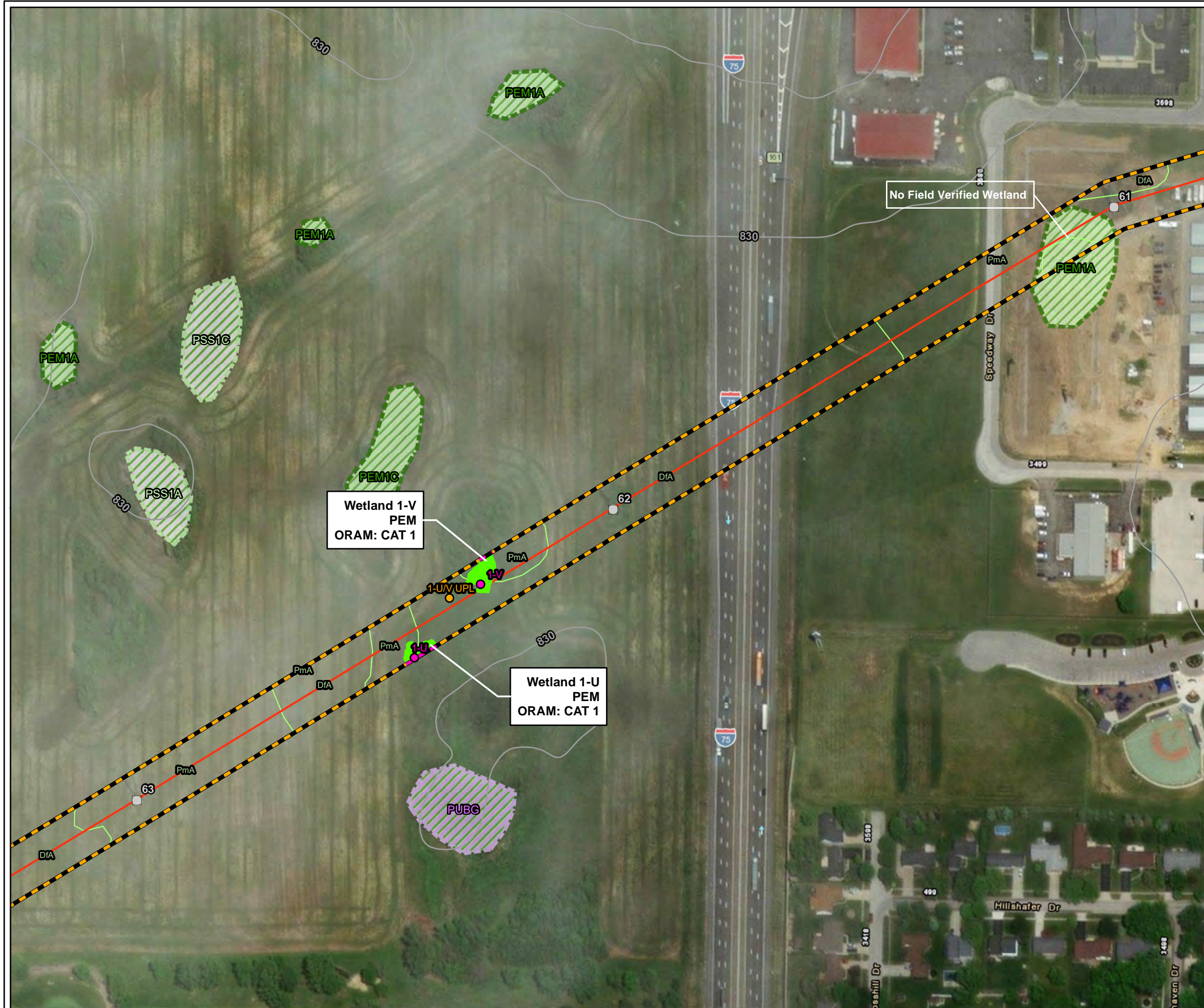
-  Structure Location
-  Project Centerline
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour
- National Wetland Inventory (NWI)**
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond



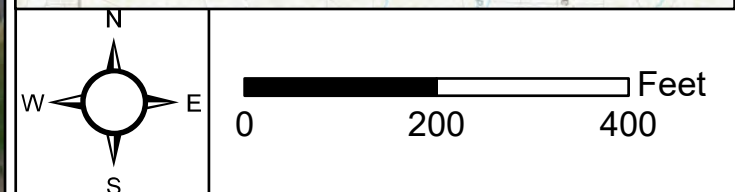
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- Structure Location
- Resource Continues Off-Site
- Project Centerline
- ▨ Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- ▨ Freshwater Emergent Wetland
- ▨ Freshwater Forested/Shrub Wetland
- ▨ Freshwater Pond
- Sample Point**
- Upland
- Wetland



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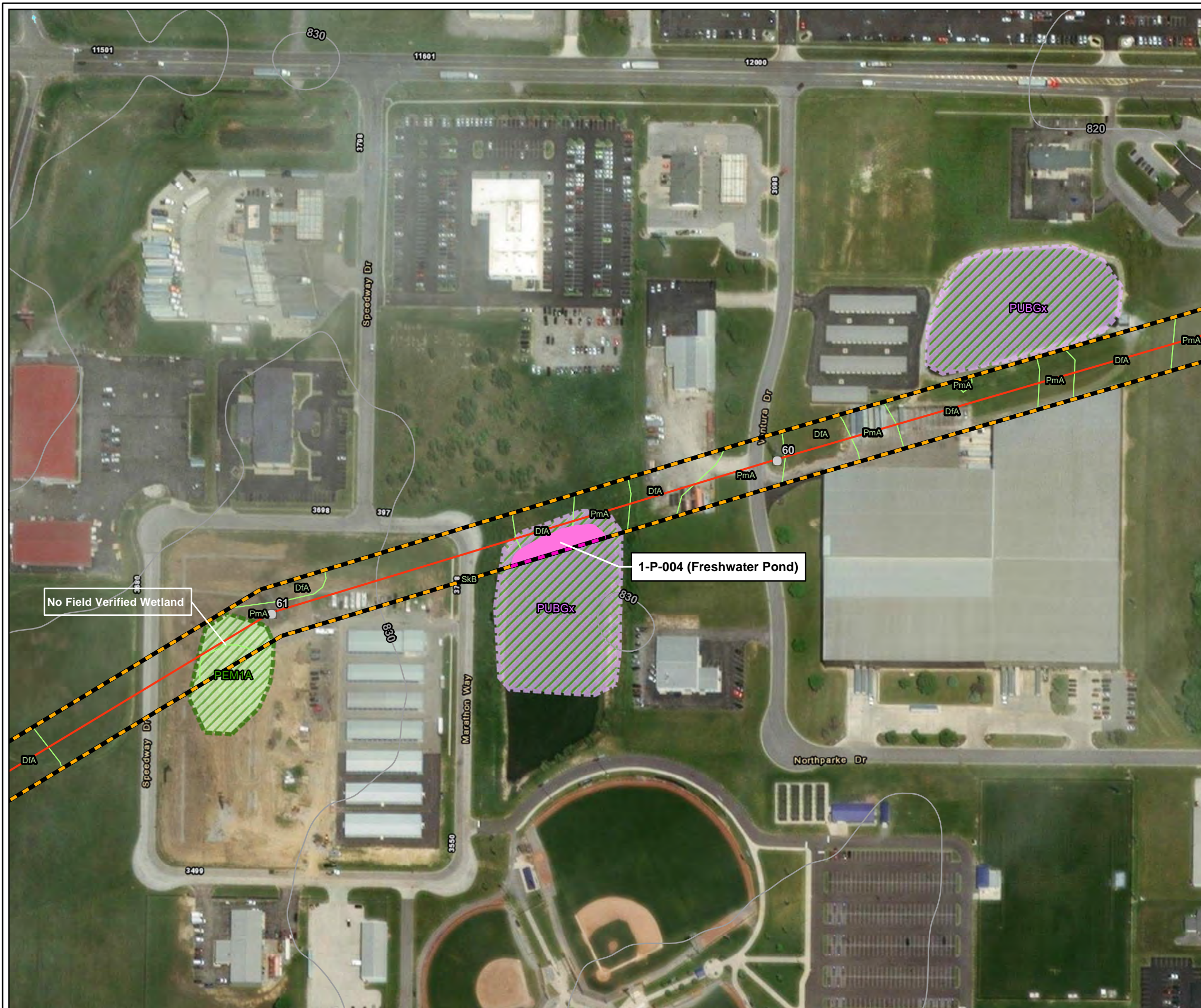
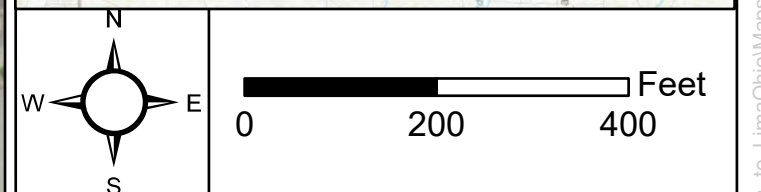


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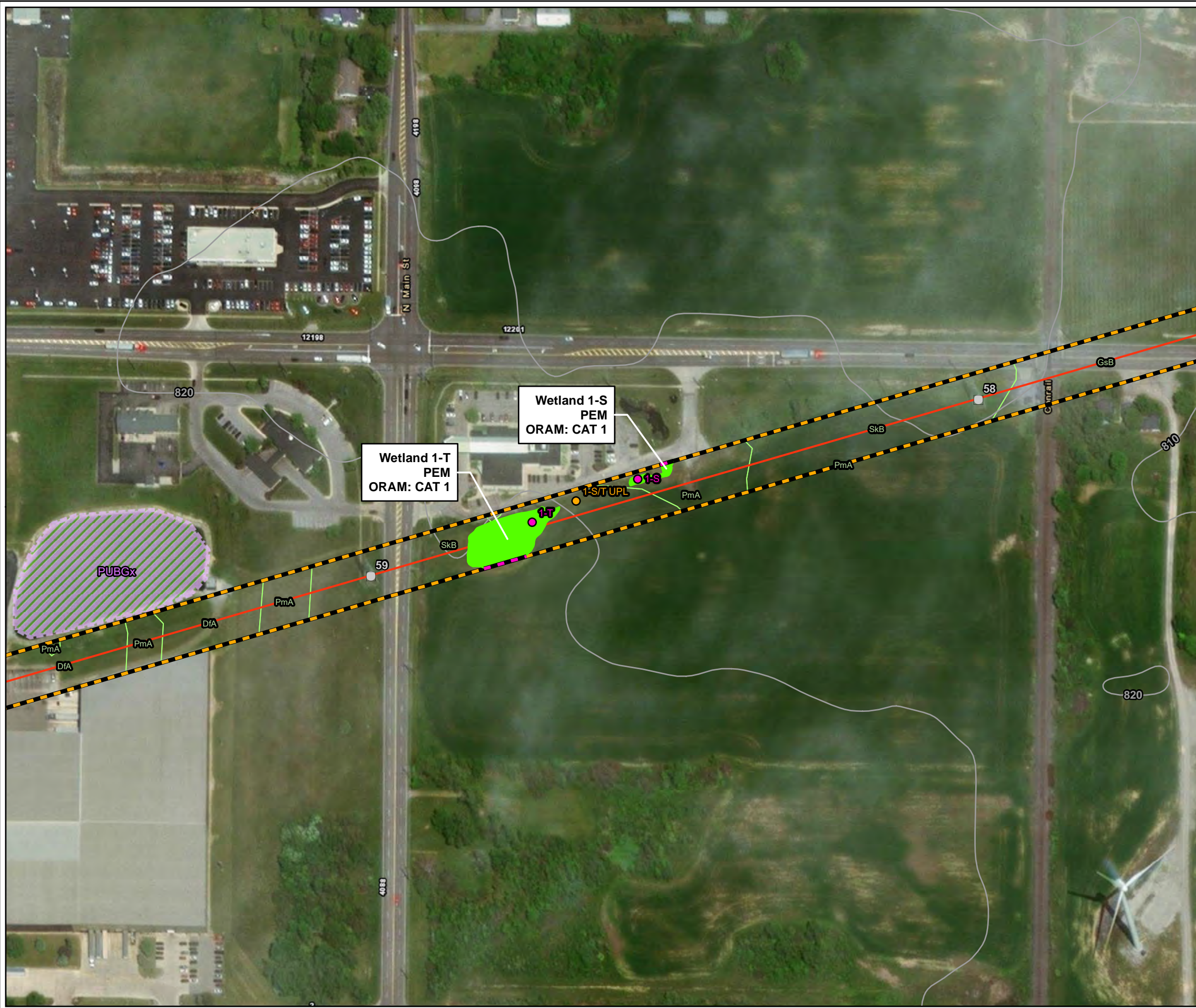
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Pond
- National Wetland Inventory (NWI)**
- Freshwater Emergent Wetland
- Freshwater Pond



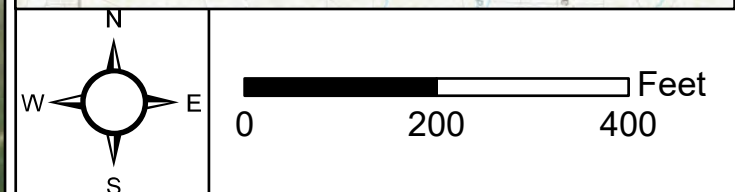
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



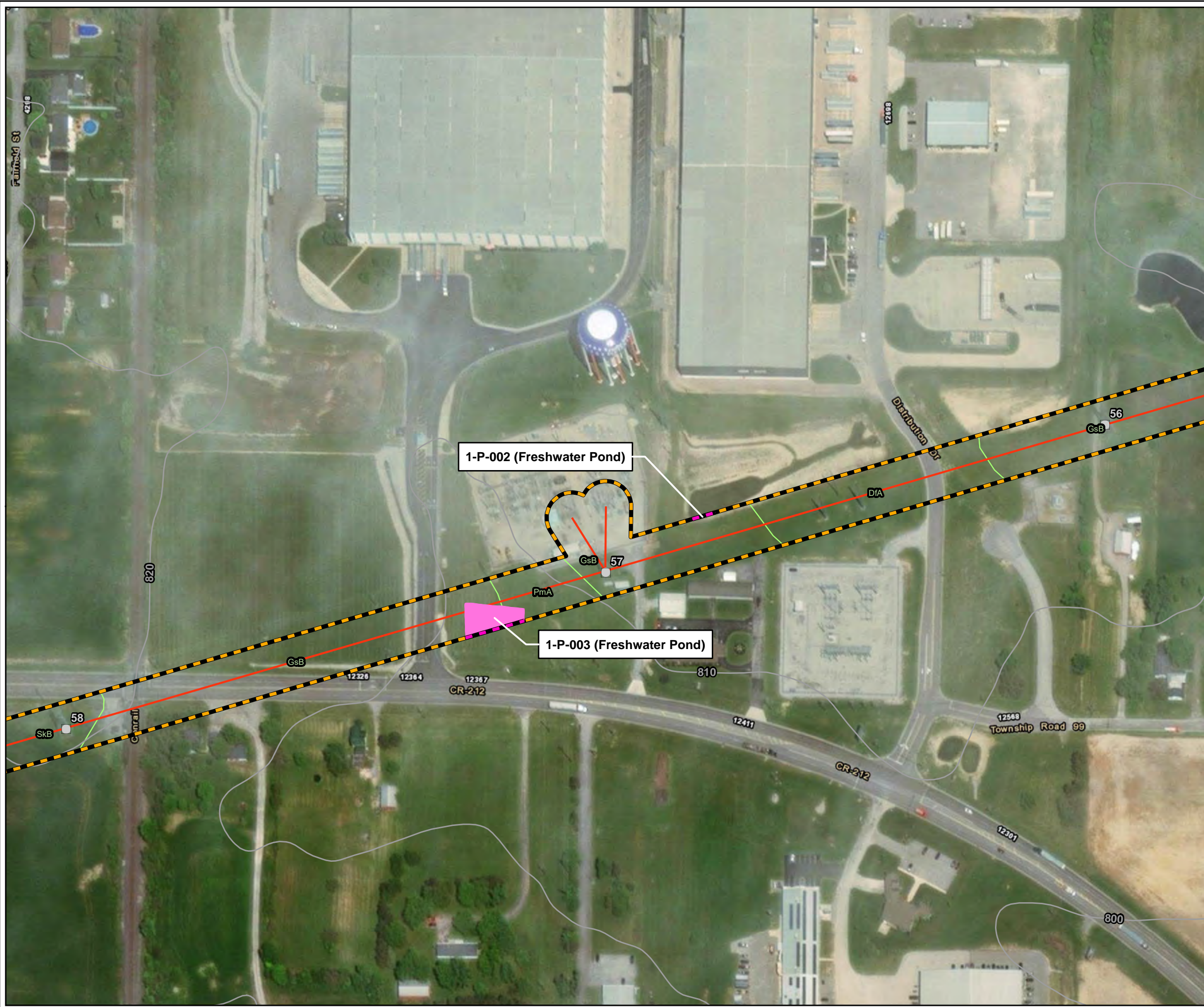
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- ▭ Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond
- Sample Point**
- Upland
- Wetland



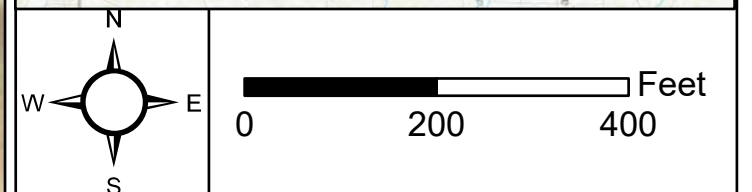
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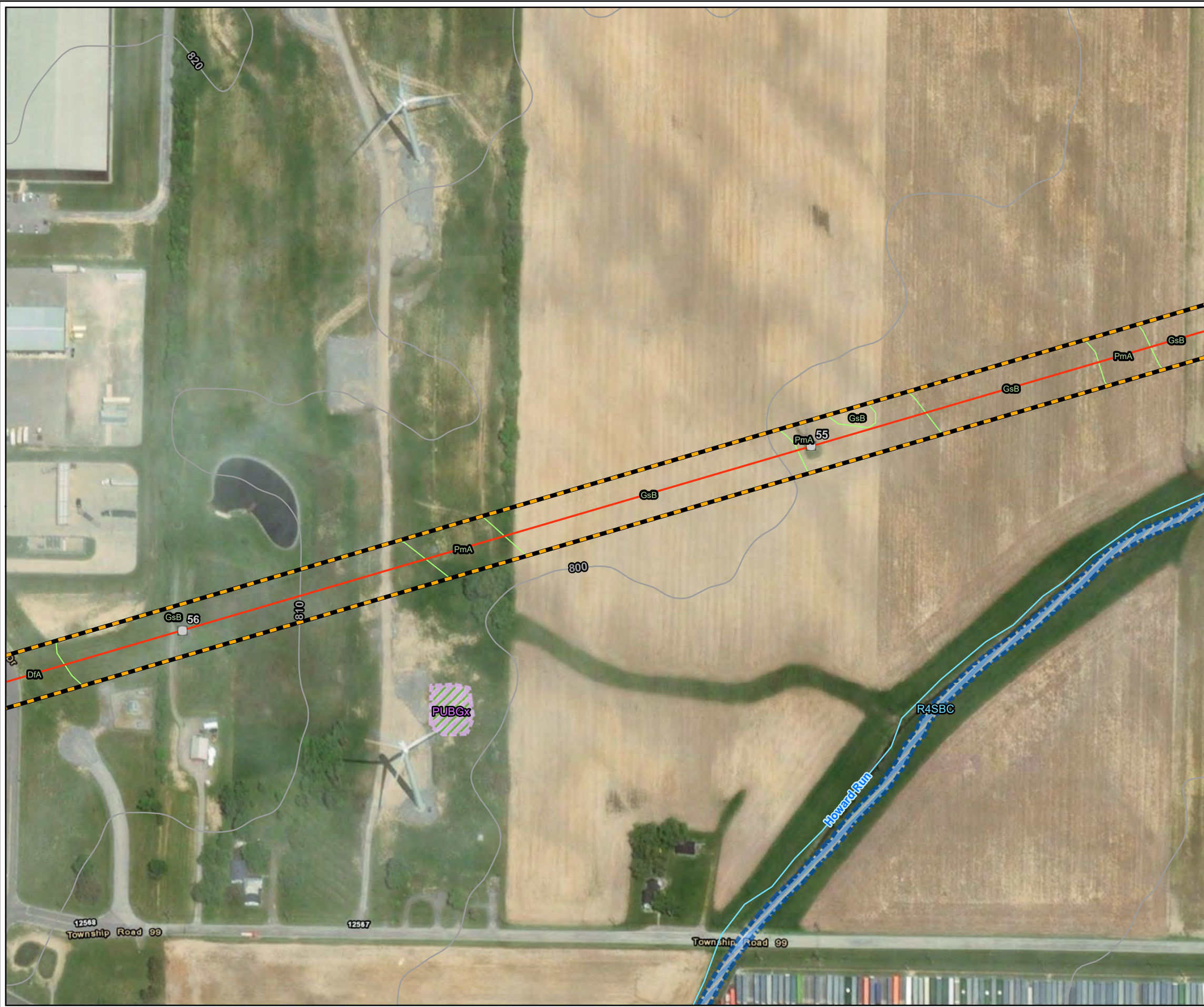


- Structure Location
- Resource Continues Off-Site
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Pond

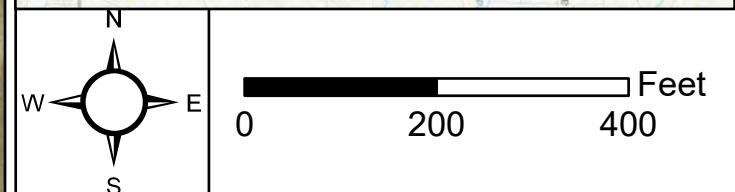


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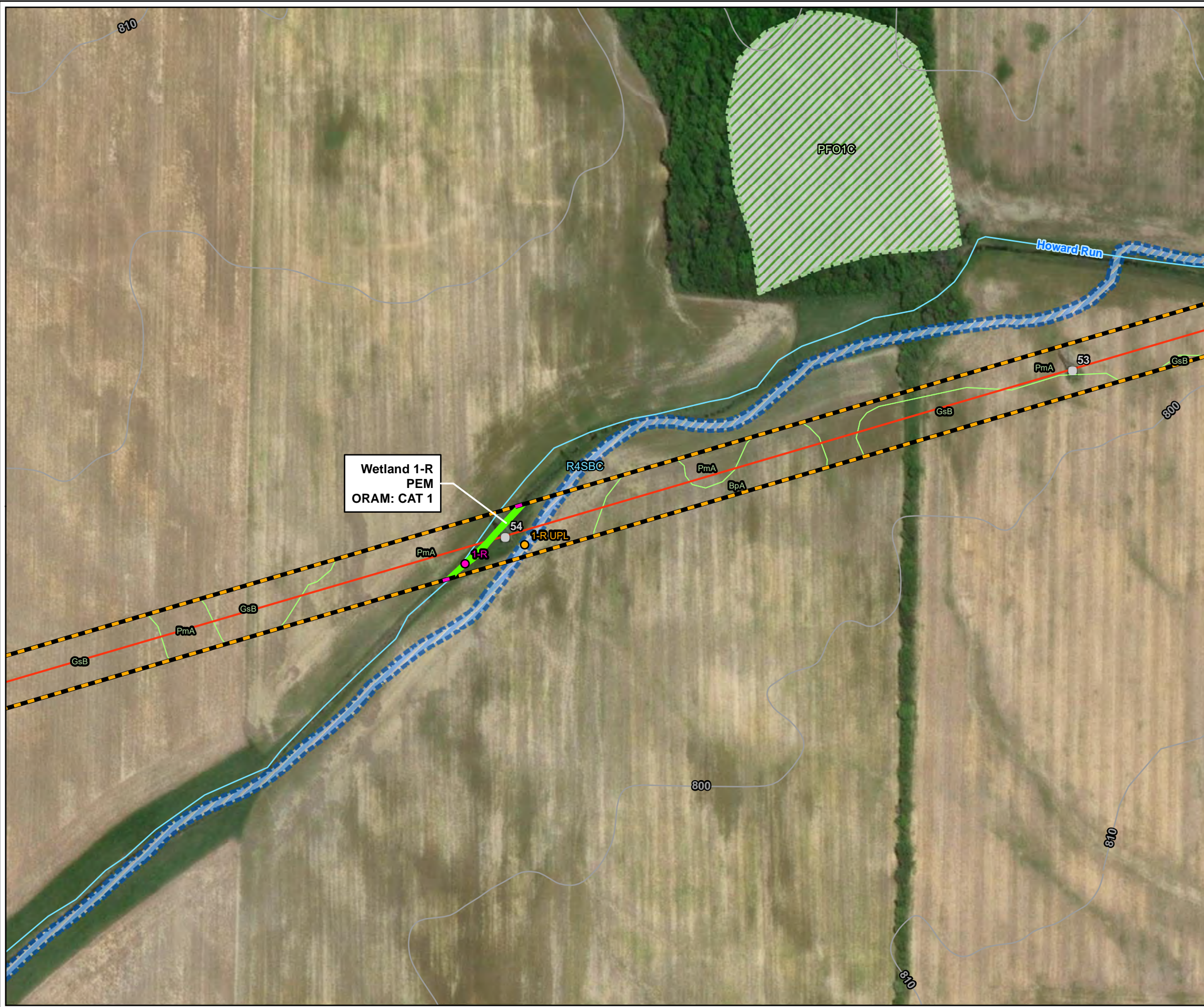
- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine



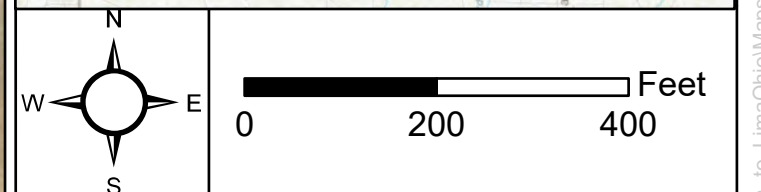
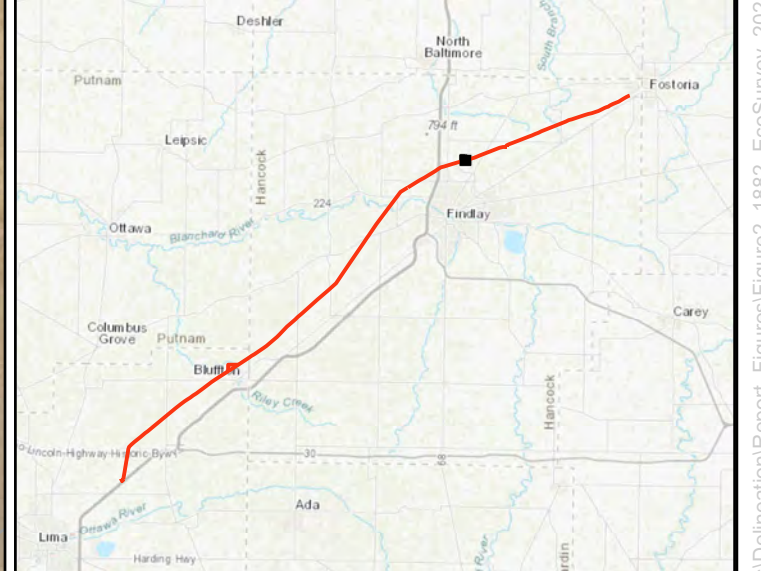
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



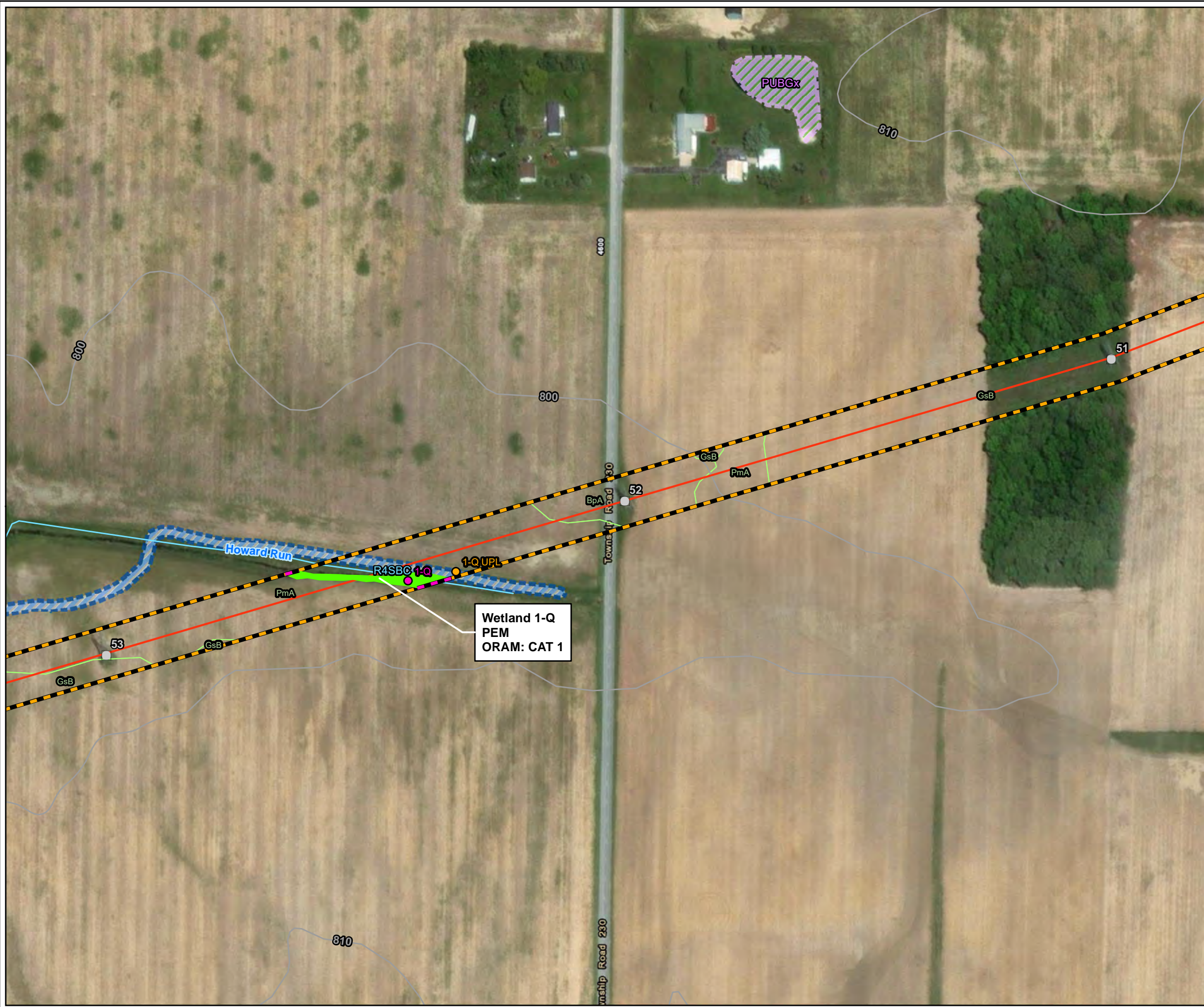
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Forested/Shrub Wetland
- Riverine
- Sample Point**
- Upland
- Wetland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



Legend

- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour

Field-Delineated Wetland

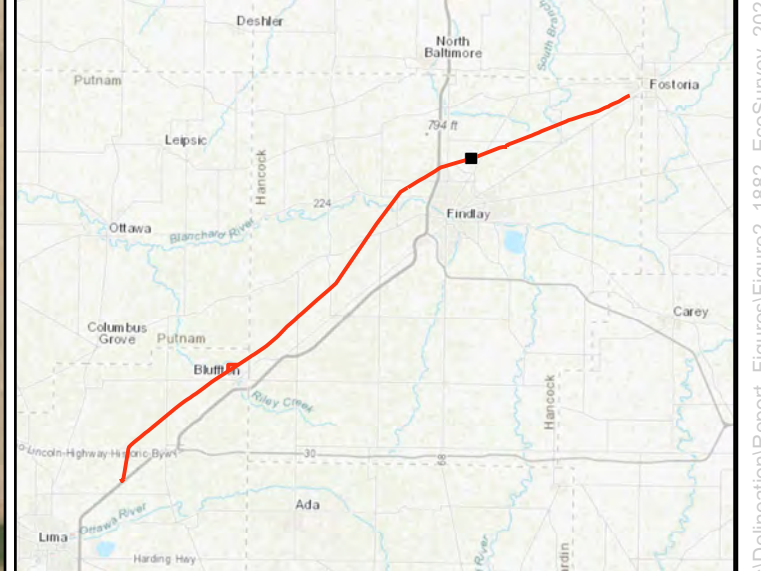
- PEM

National Wetland Inventory (NWI)

- ▨ Freshwater Pond
- ▨ Riverine

Sample Point

- Upland
- Wetland

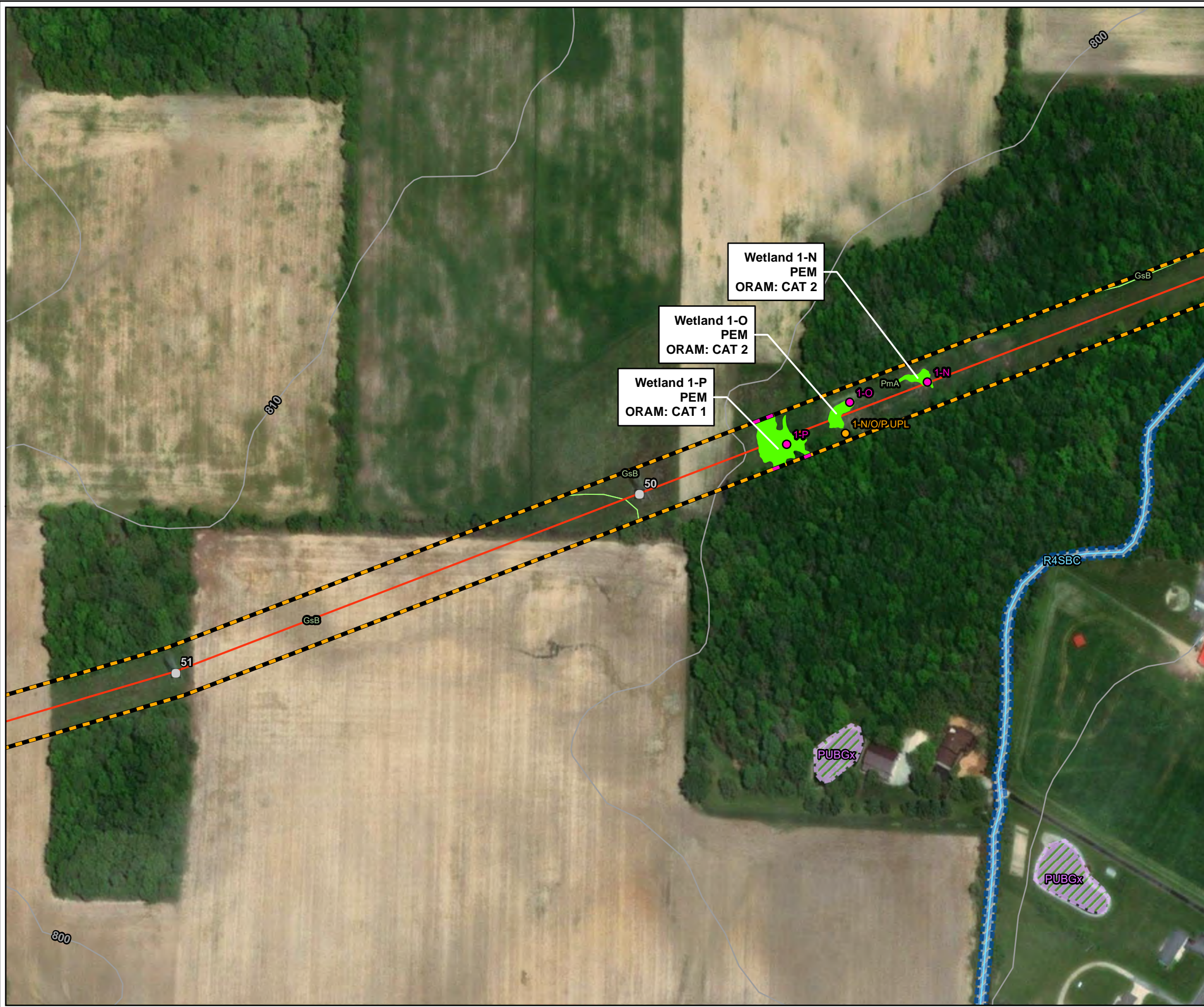


North arrow and scale bar (0 to 400 Feet).

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 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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- Structure Location
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- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour

Field-Delineated Wetland

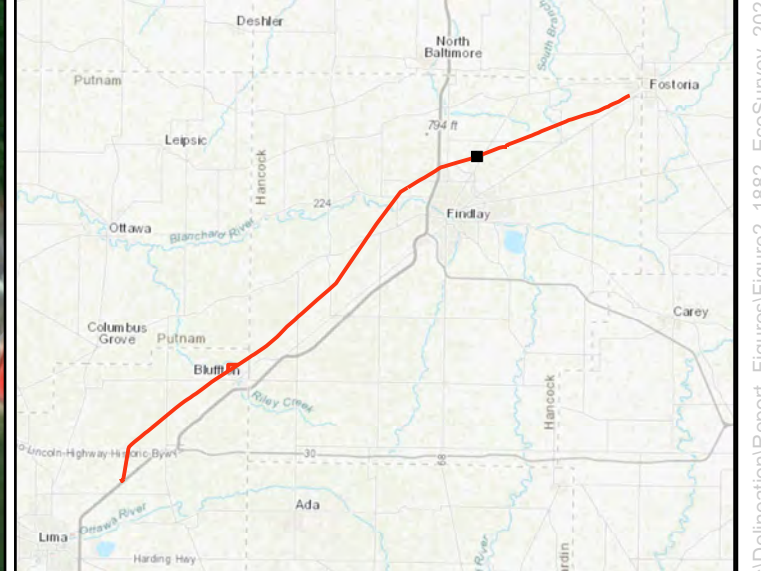
- PEM

National Wetland Inventory (NWI)

- Freshwater Pond
- Riverine

Sample Point

- Upland
- Wetland

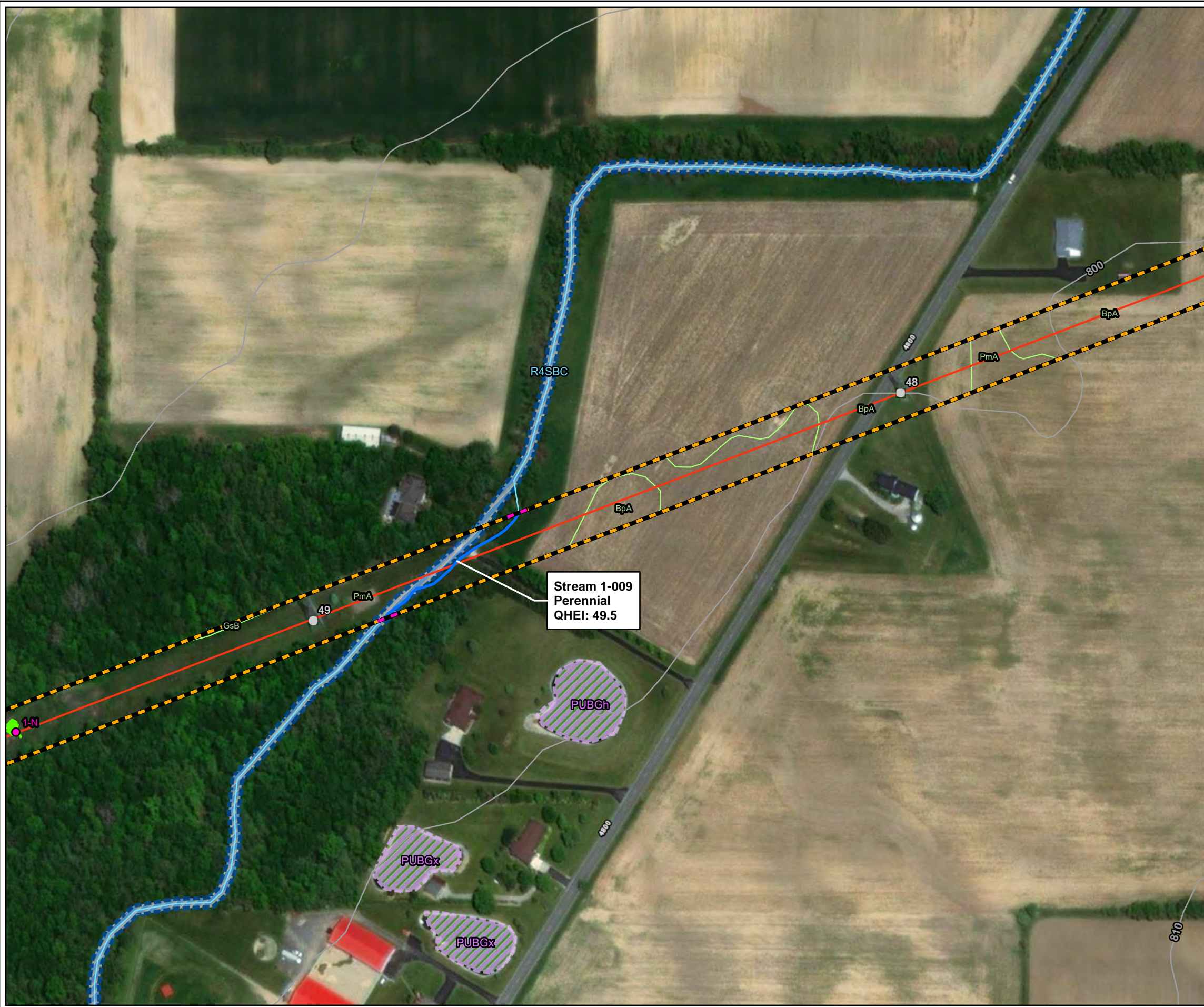


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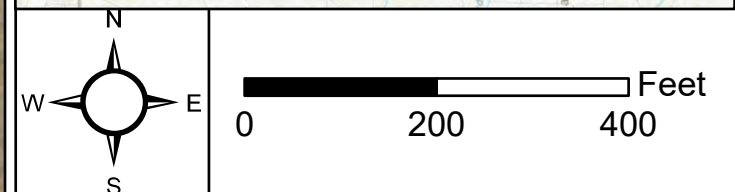
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



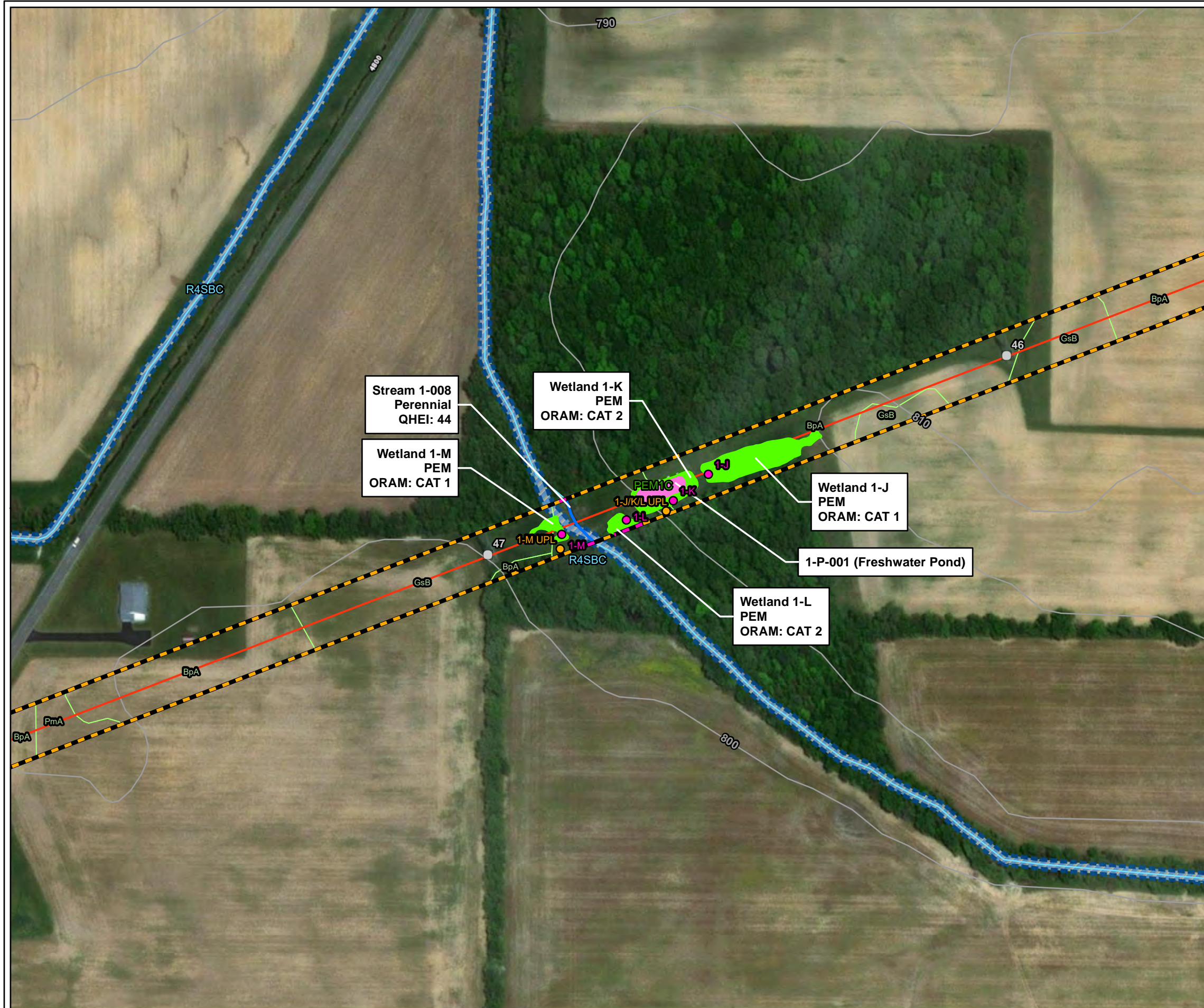
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- Resource Continues Off-Site
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- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
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- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine
- Sample Point**
- Wetland



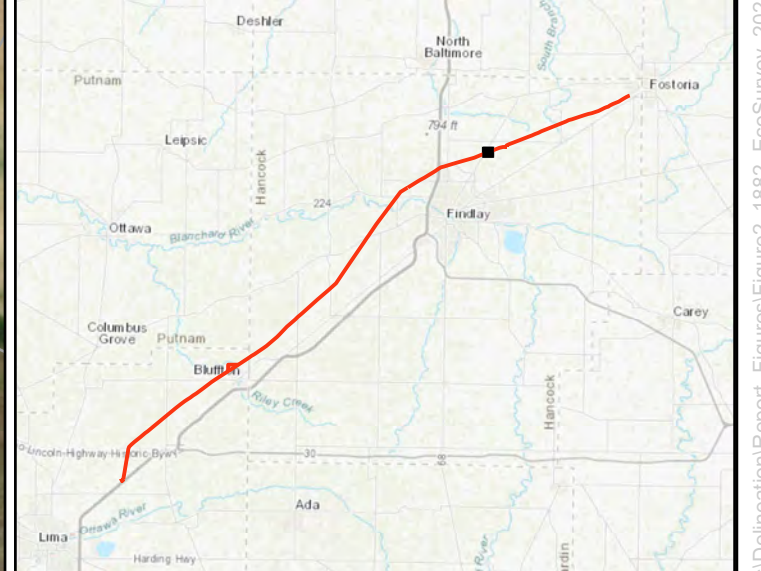
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- Field-Delineated Wetland**
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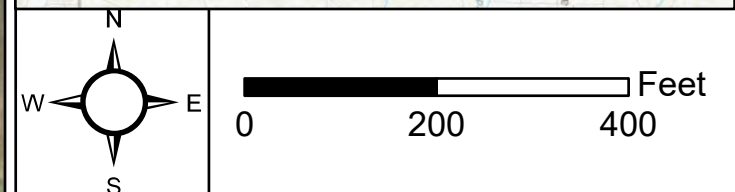
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- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond
- ▨ Riverine

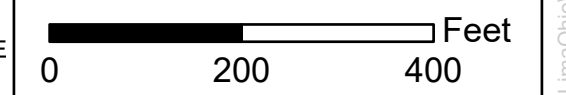
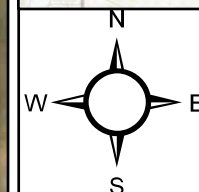


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- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour

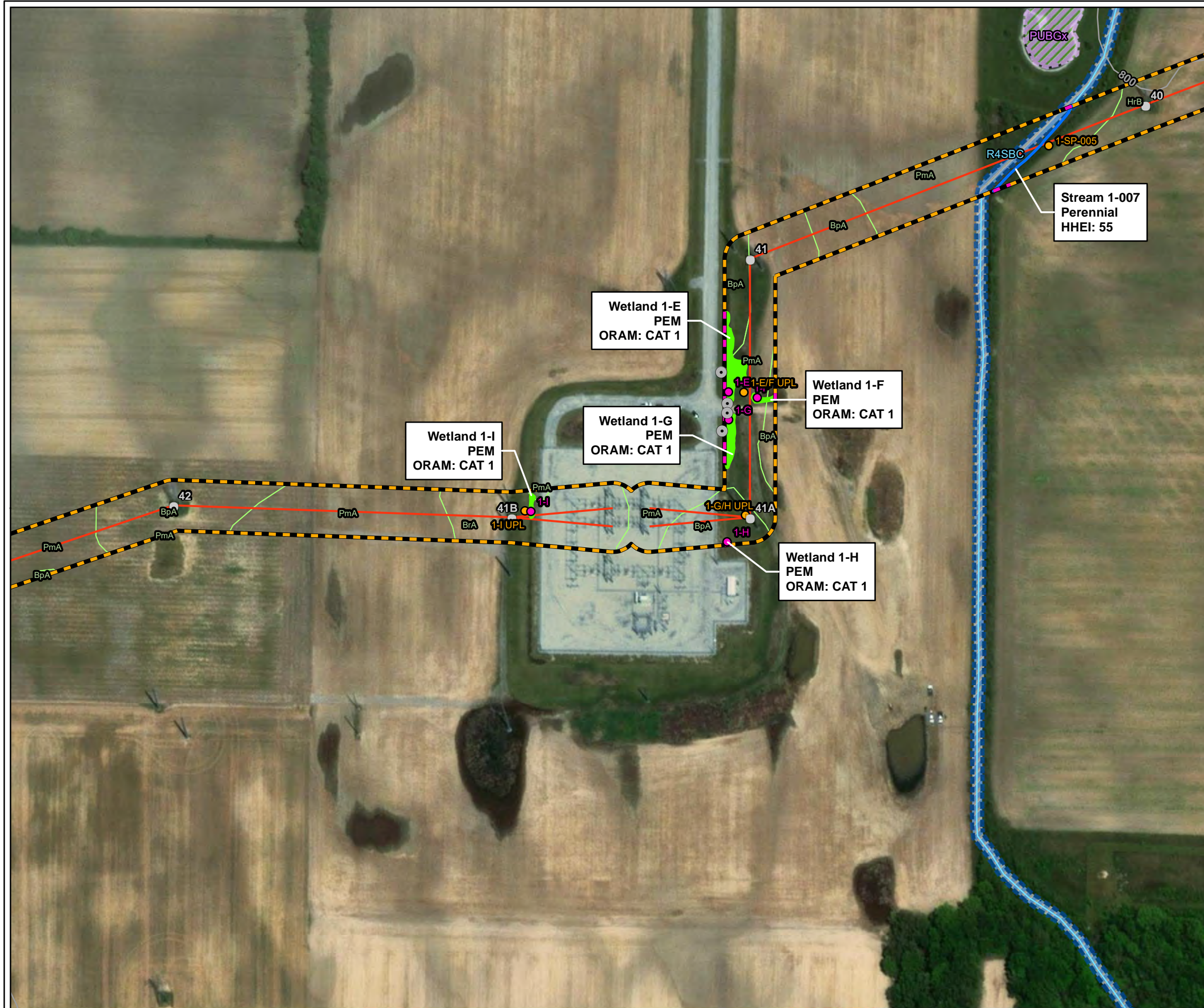


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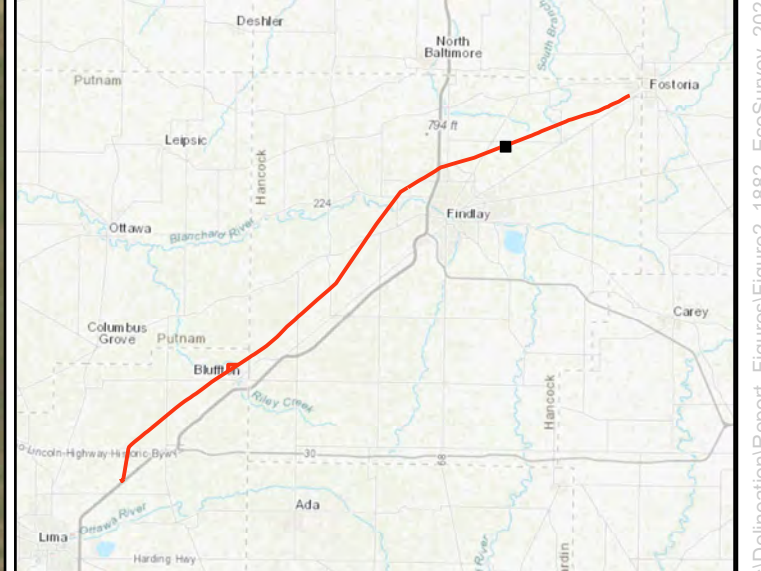
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Project No. 1882

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- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
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- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine
- Sample Point**
- Upland
- Wetland

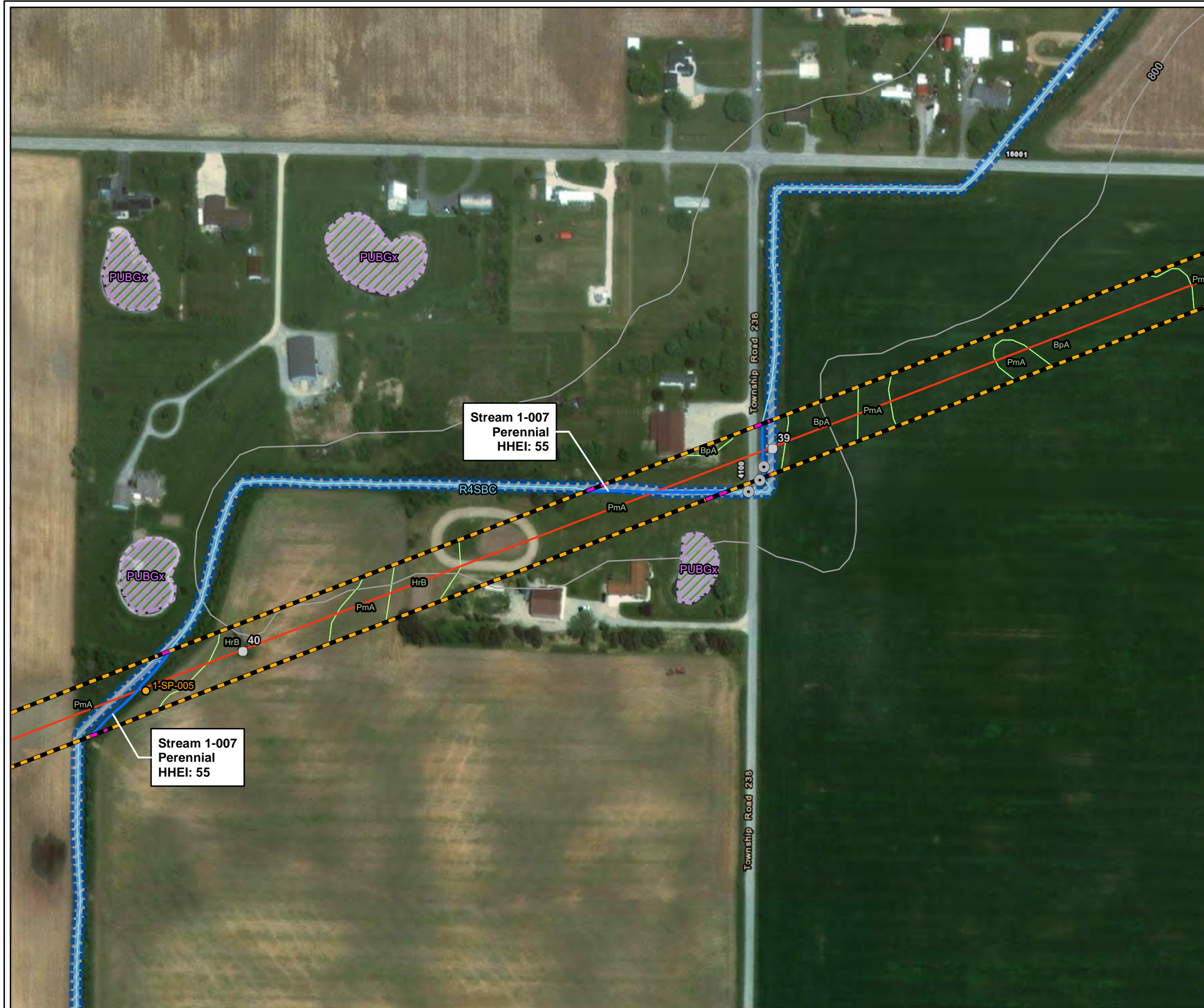


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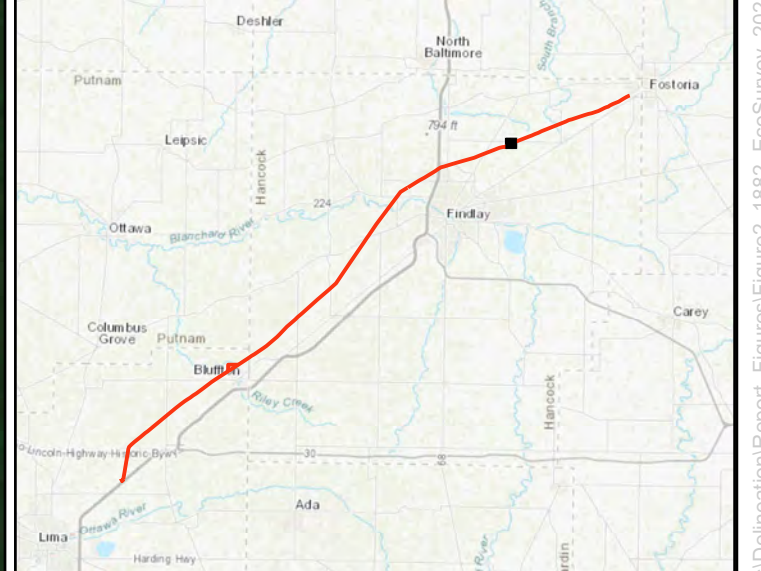
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Freshwater Pond
- Riverine
- Sample Point**
- Upland



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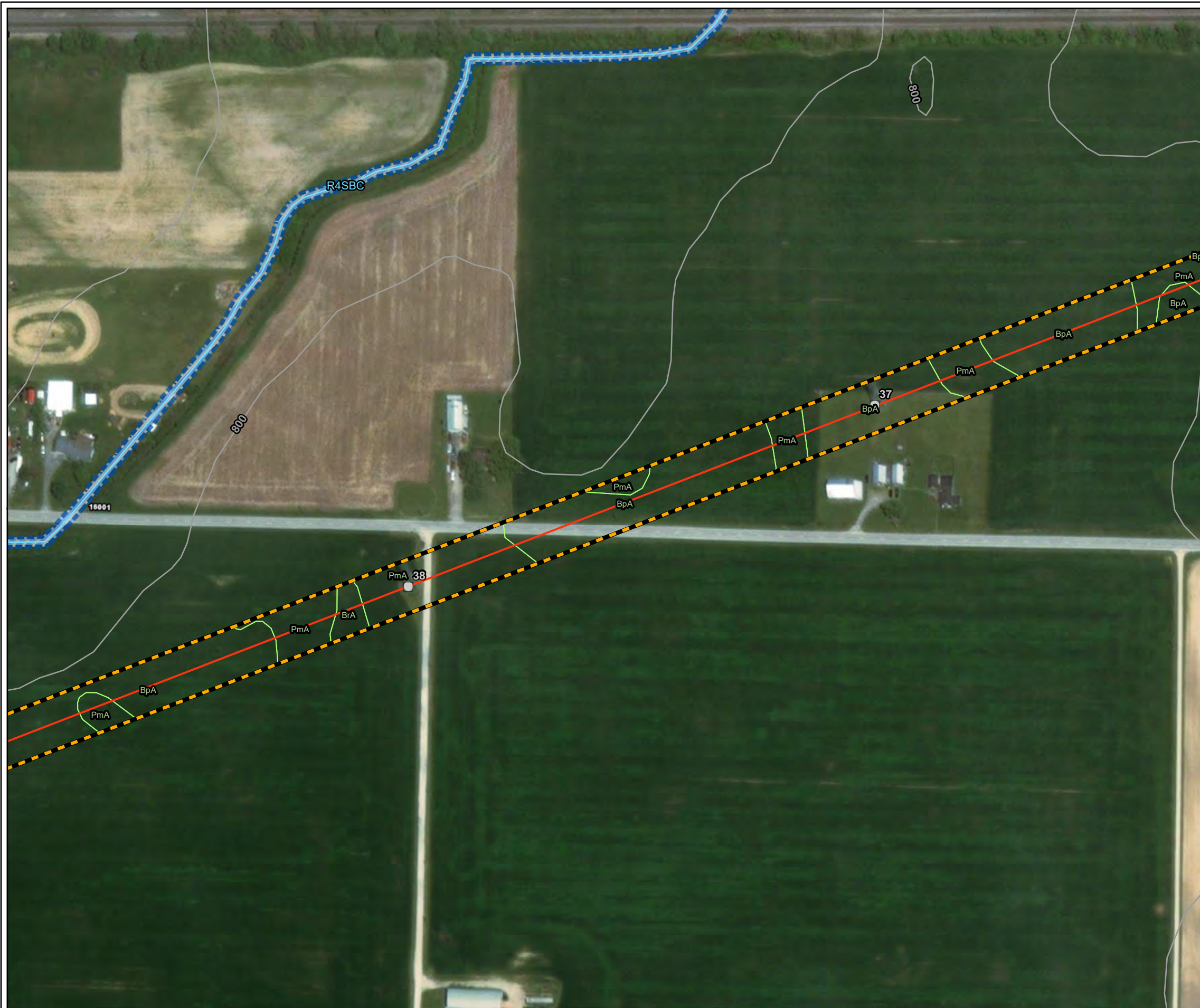
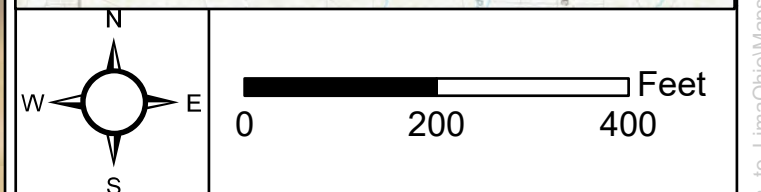


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▭ Riverine



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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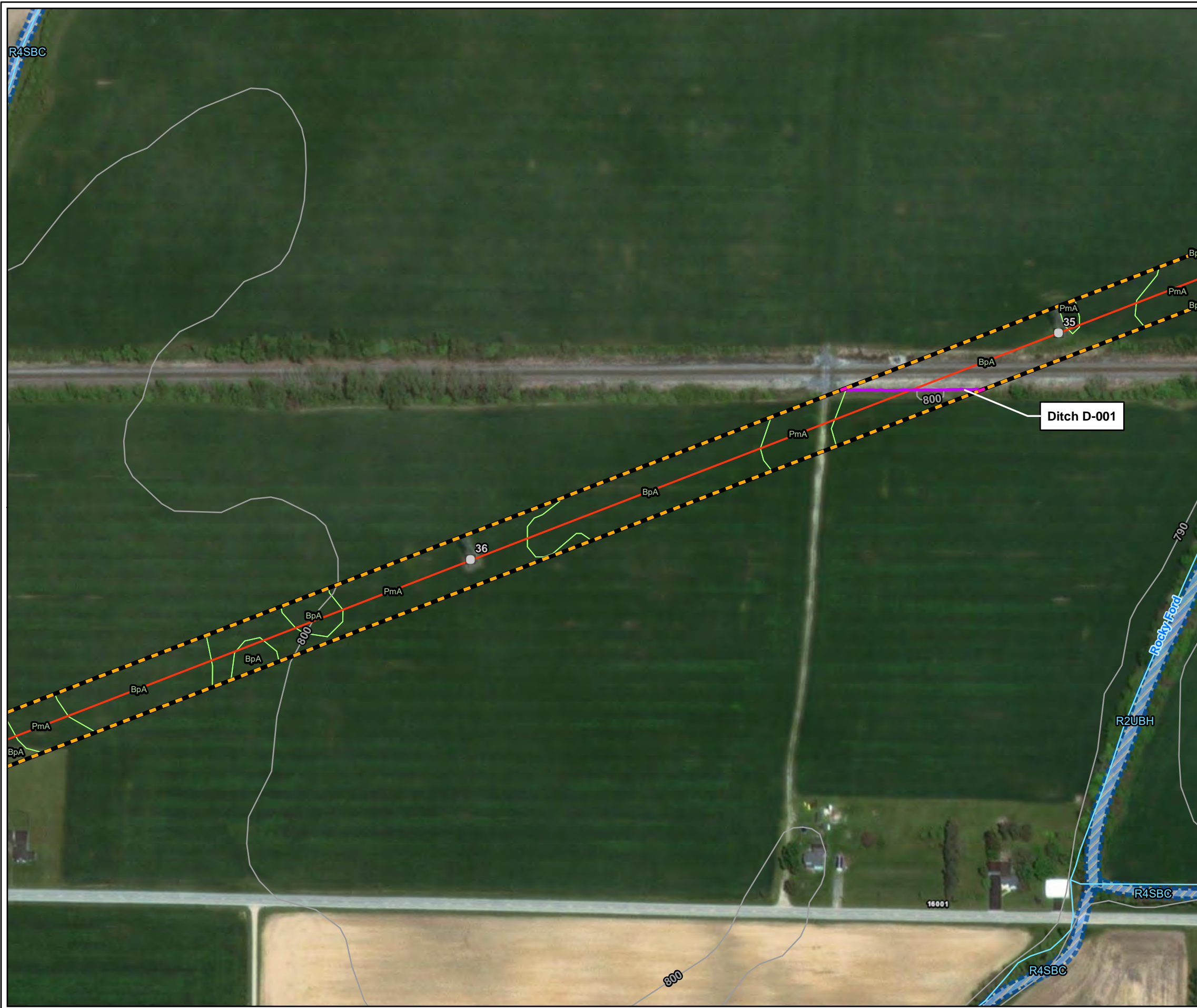









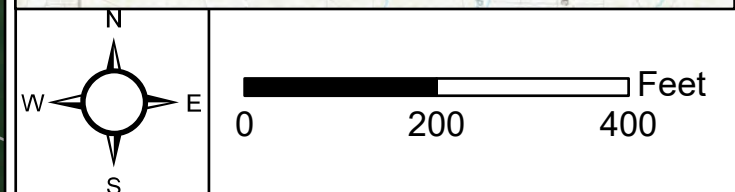


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

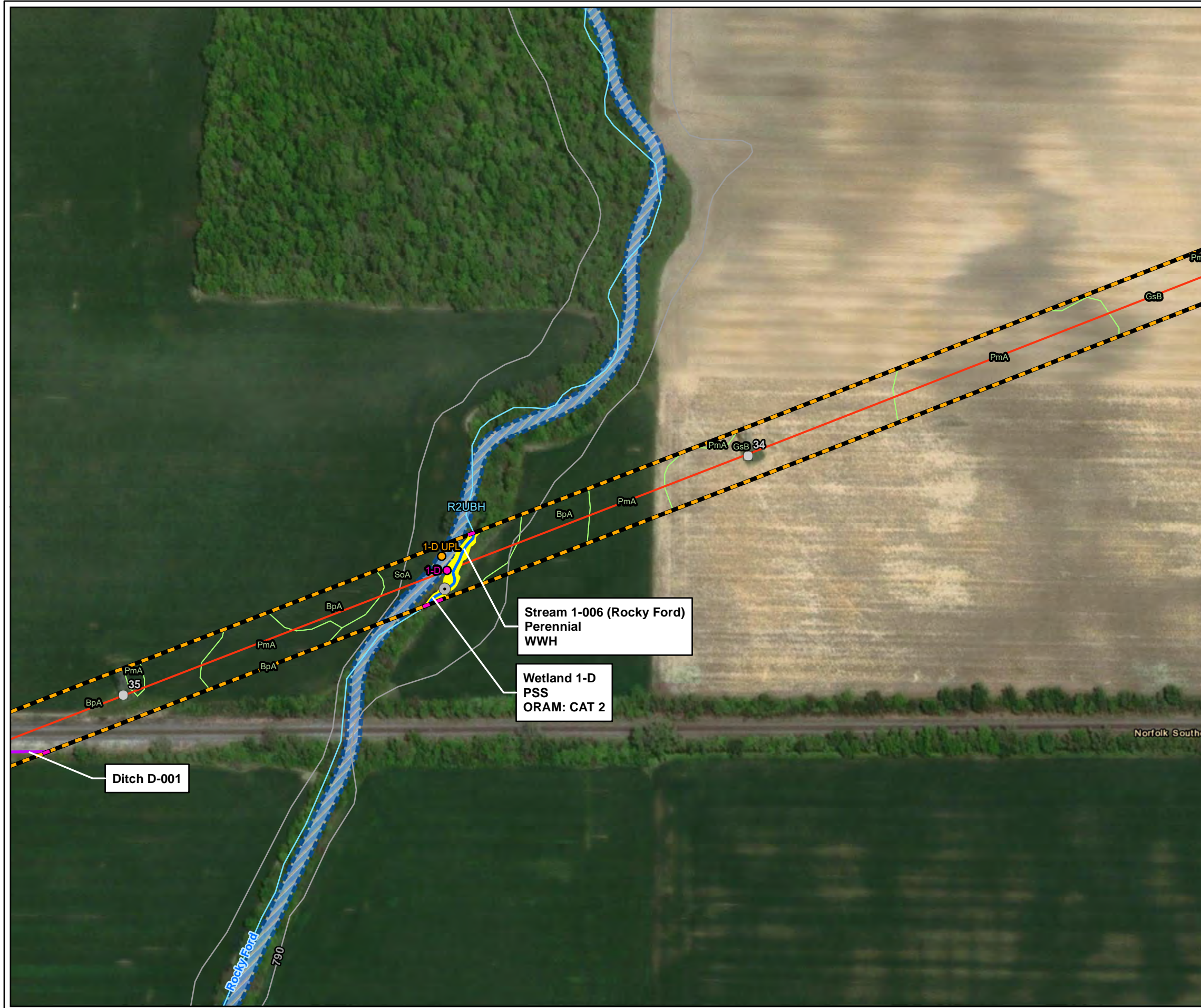
-  Structure Location
-  Resource Continues Off-Site
-  Project Centerline
-  National Hydrography Dataset (NHD) Stream
-  Ditch
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour
- National Wetland Inventory (NWI)**
-  Riverine



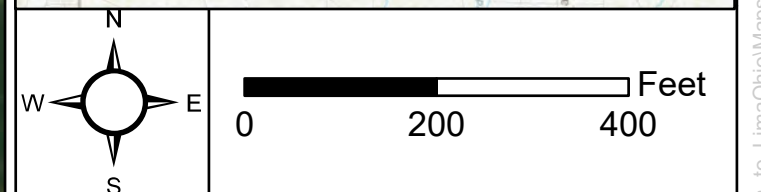
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Culvert Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Ditch
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PSS
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland
- Wetland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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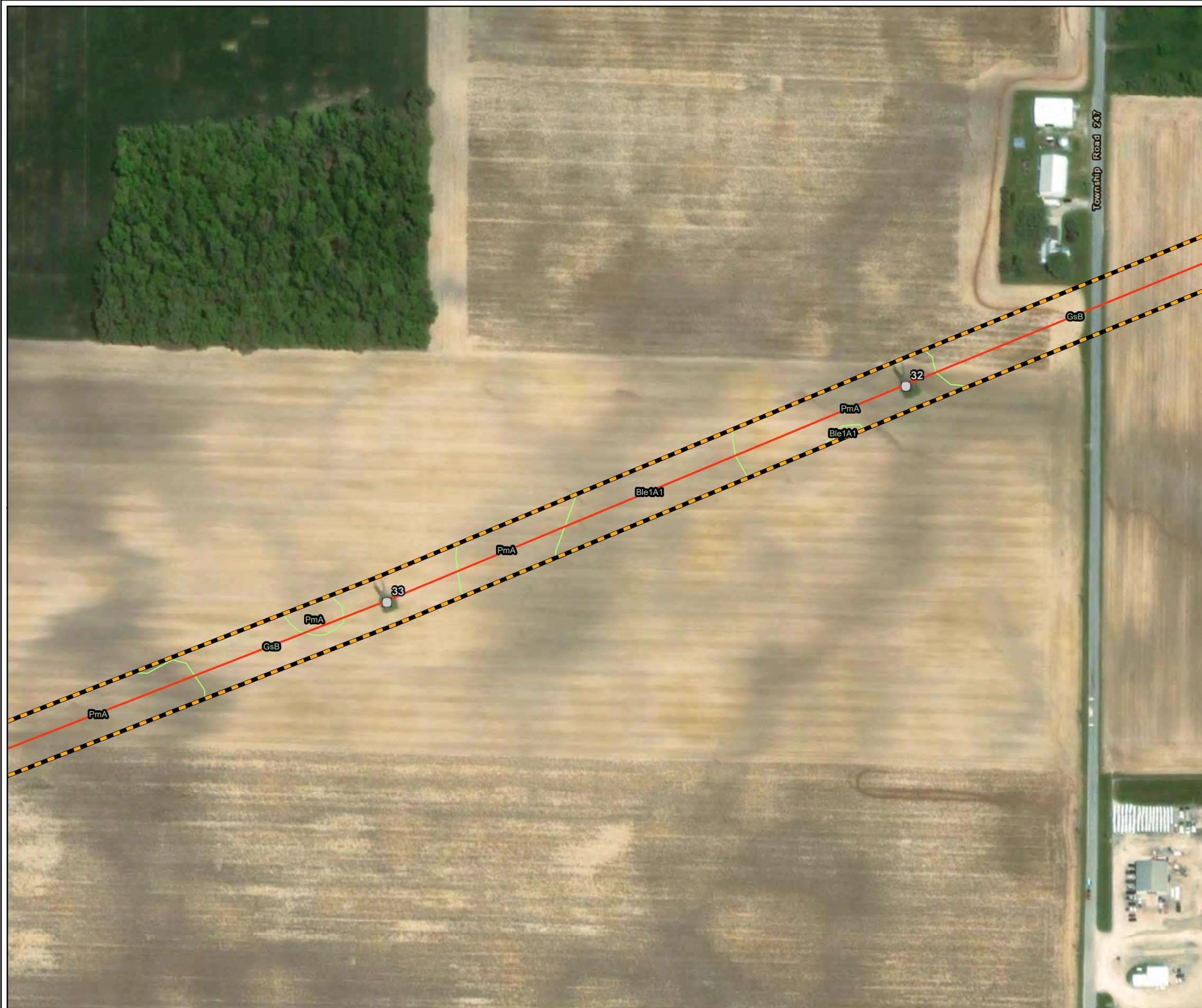
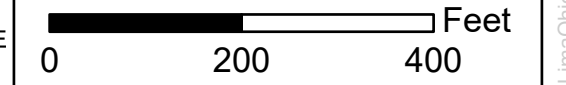
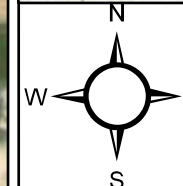


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- Area of Investigation (AOI)
- Soils

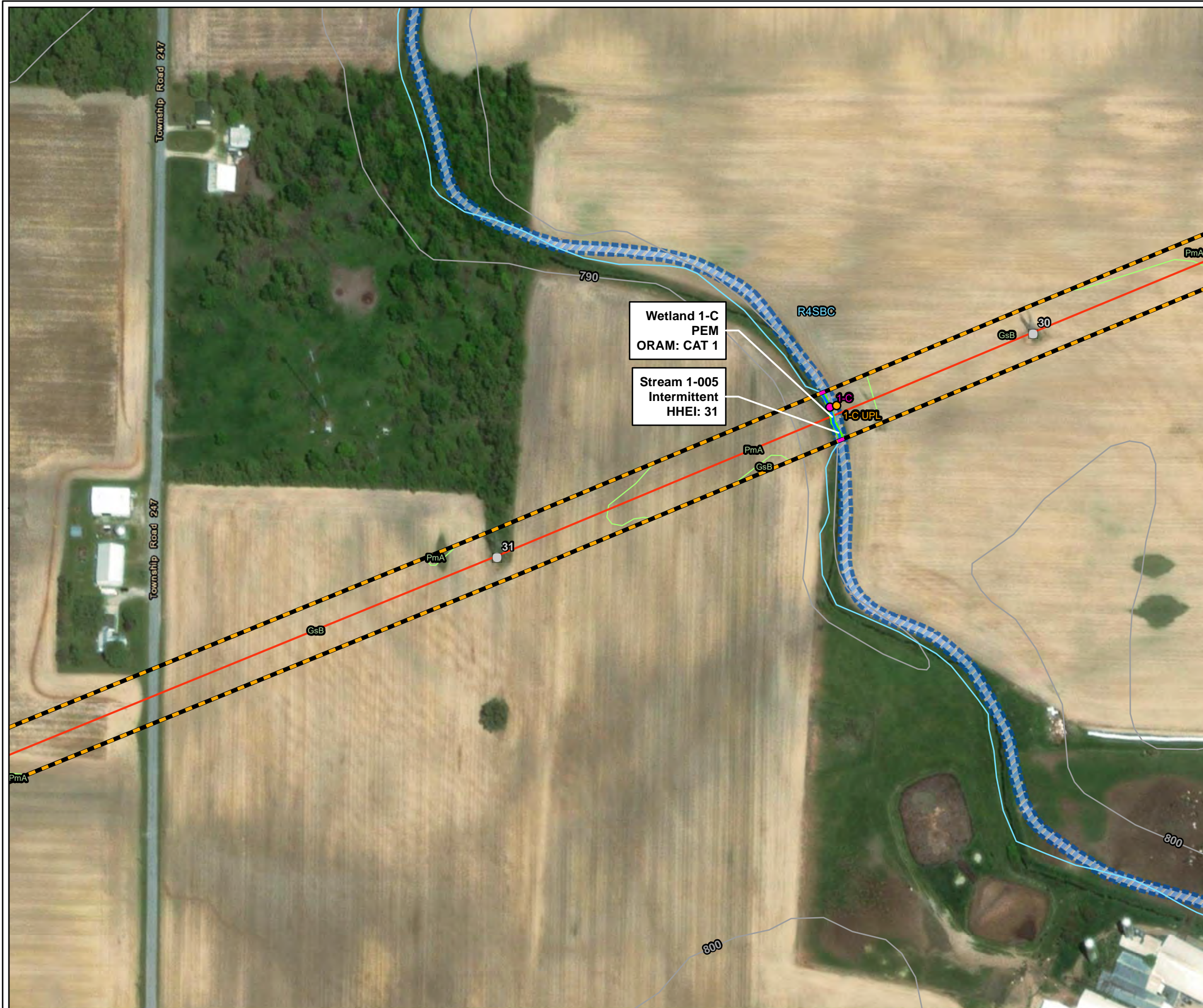


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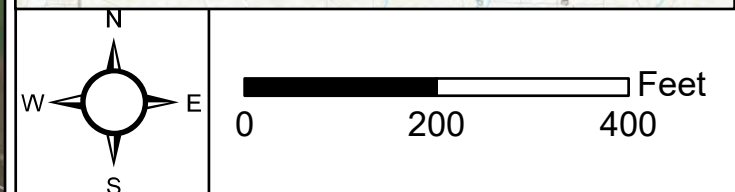
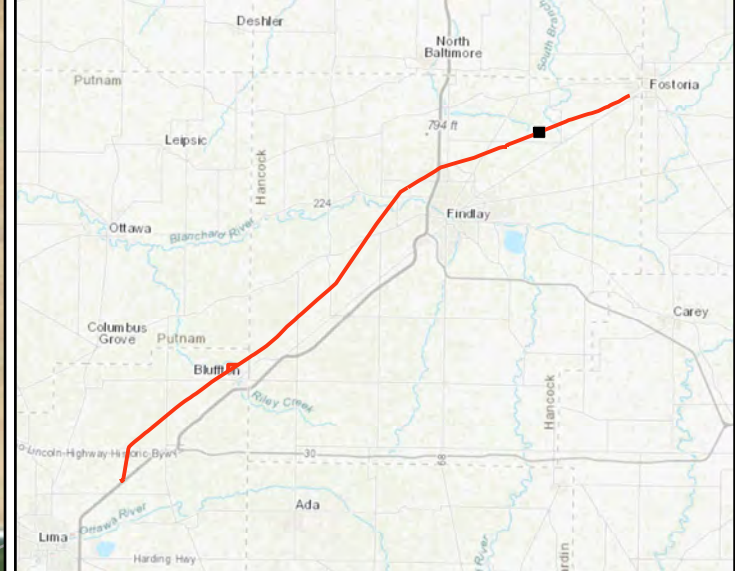


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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland
- Wetland



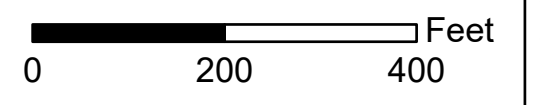
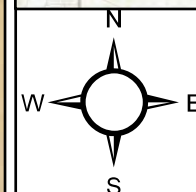
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour

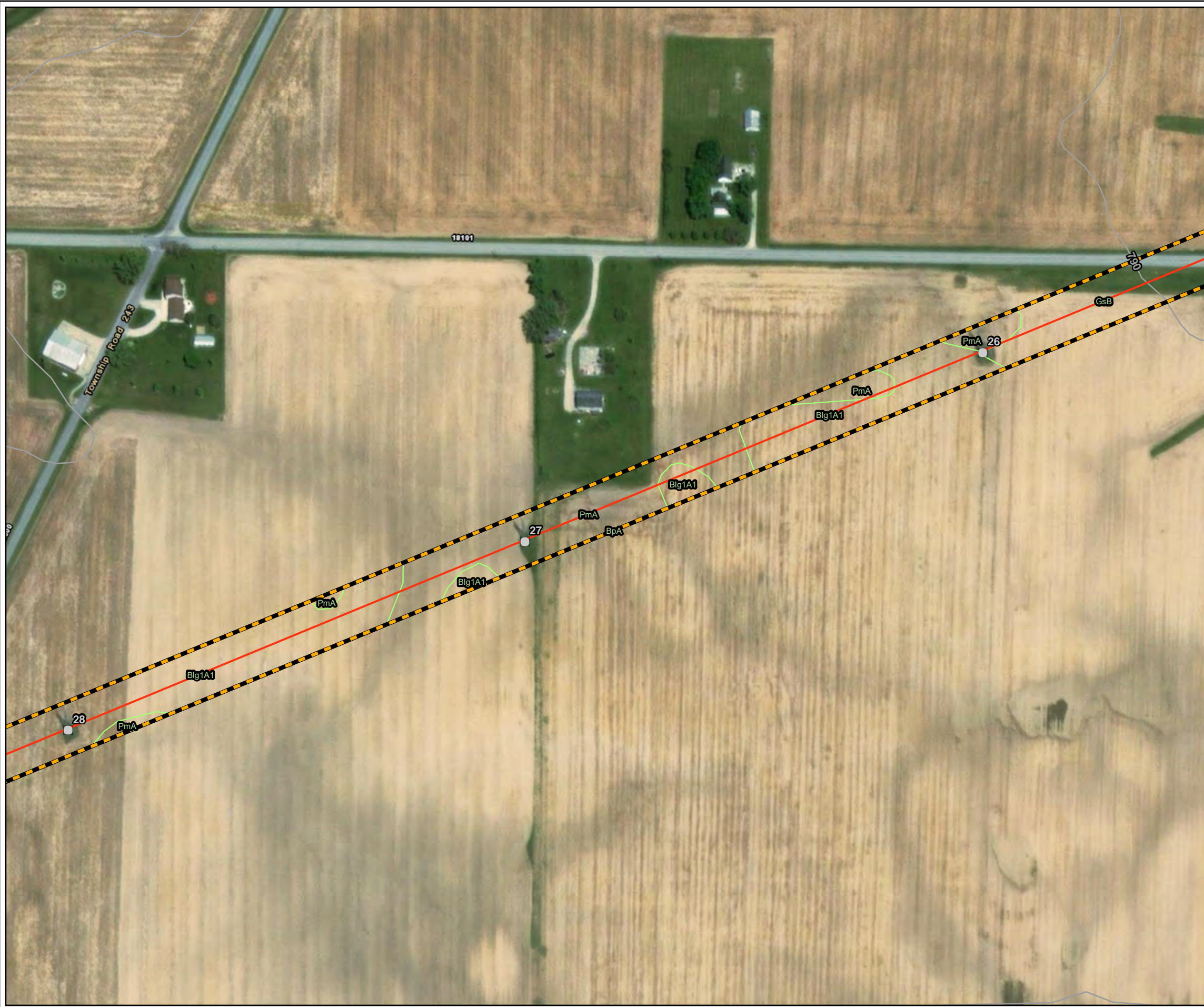


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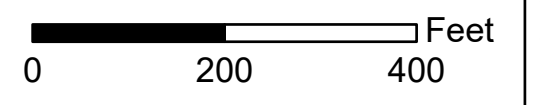
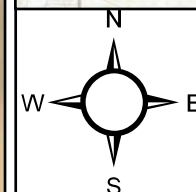
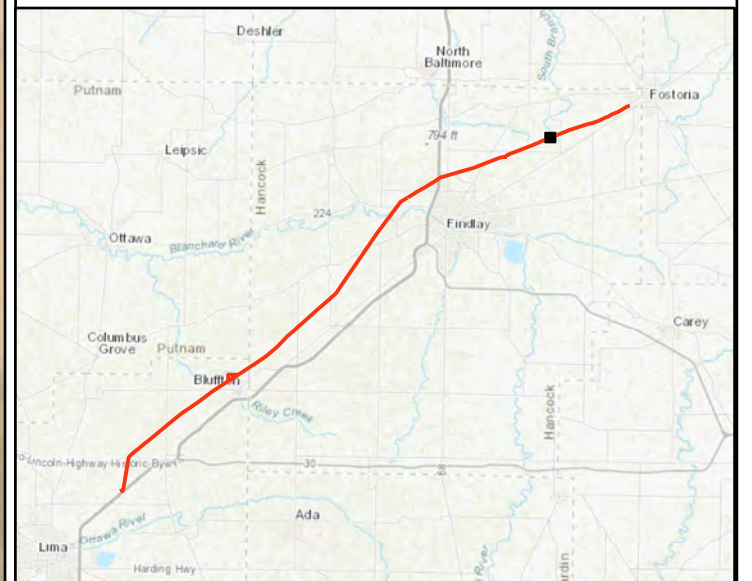


Project No. 1882

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour

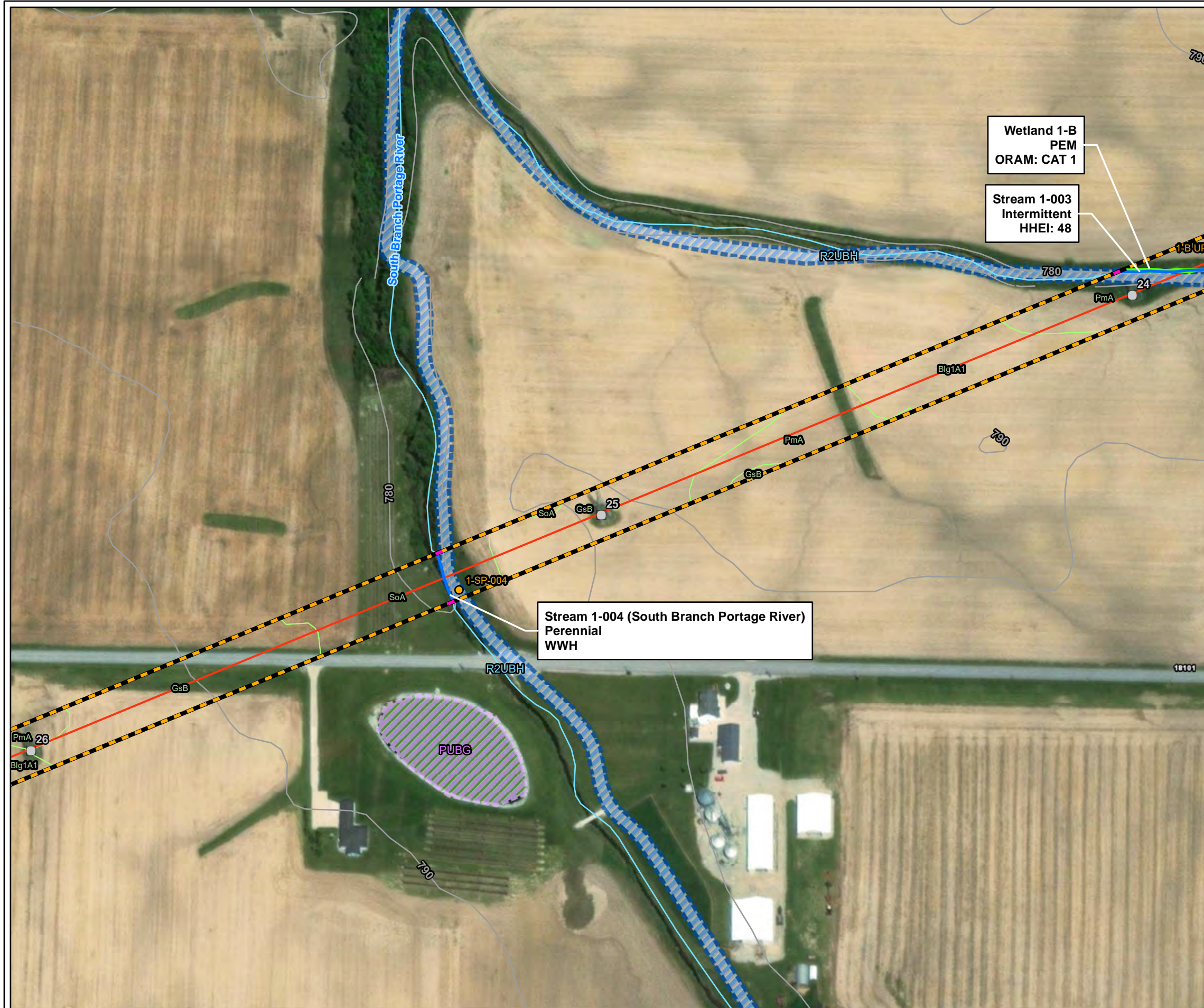


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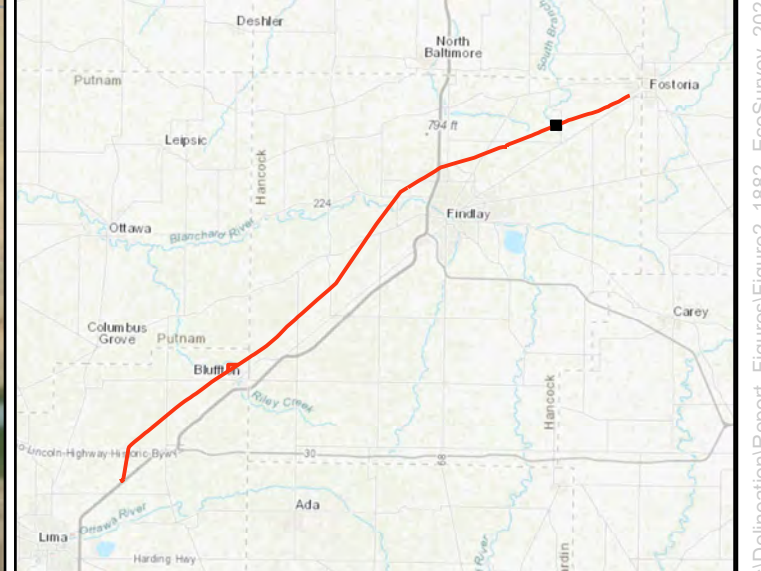
Project No. 1882

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



Legend

- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
 - PEM
- National Wetland Inventory (NWI)**
 - Freshwater Pond
 - Riverine
- Sample Point**
 - Upland
 - Wetland

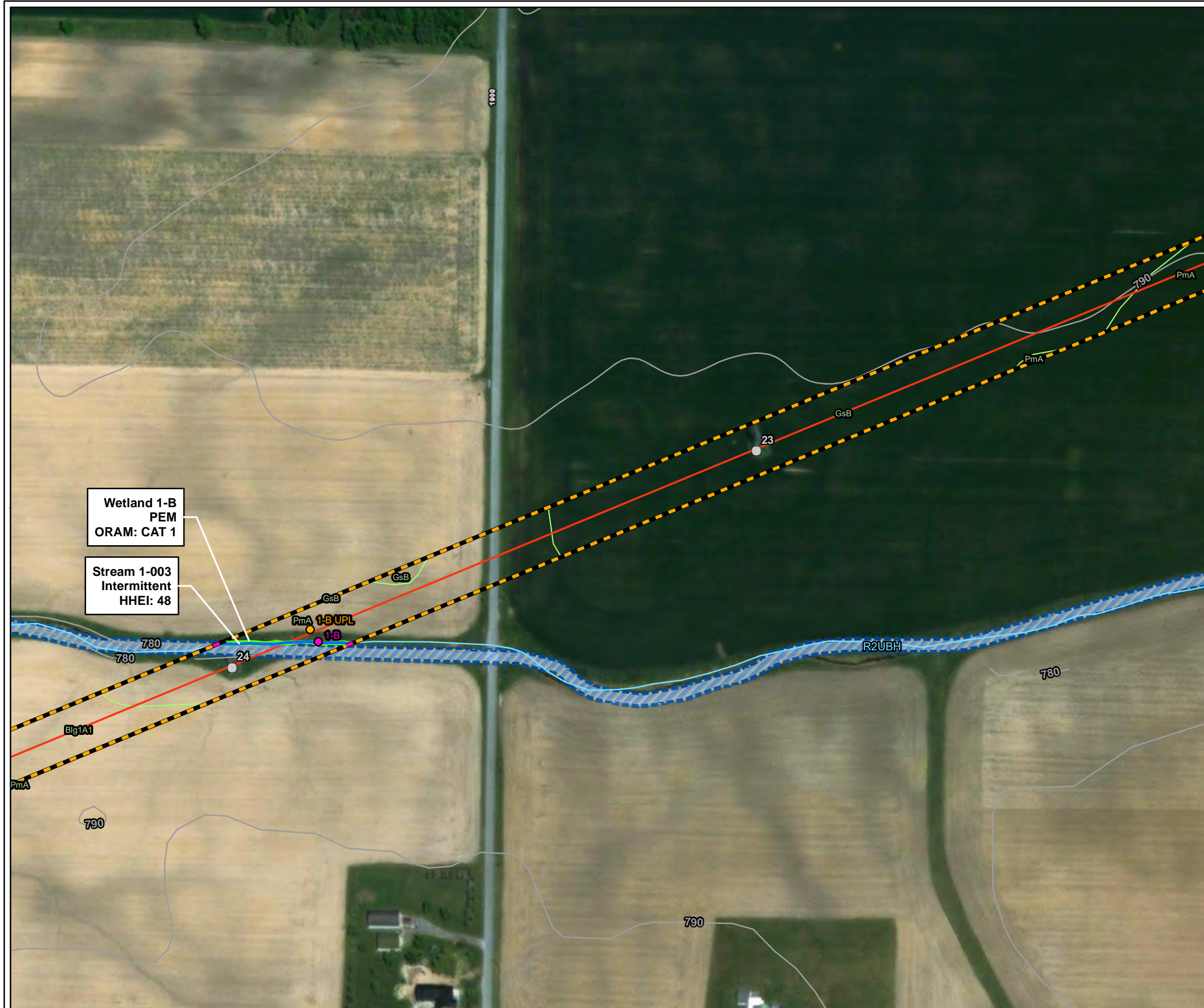


North arrow and scale bar (0 to 400 Feet).

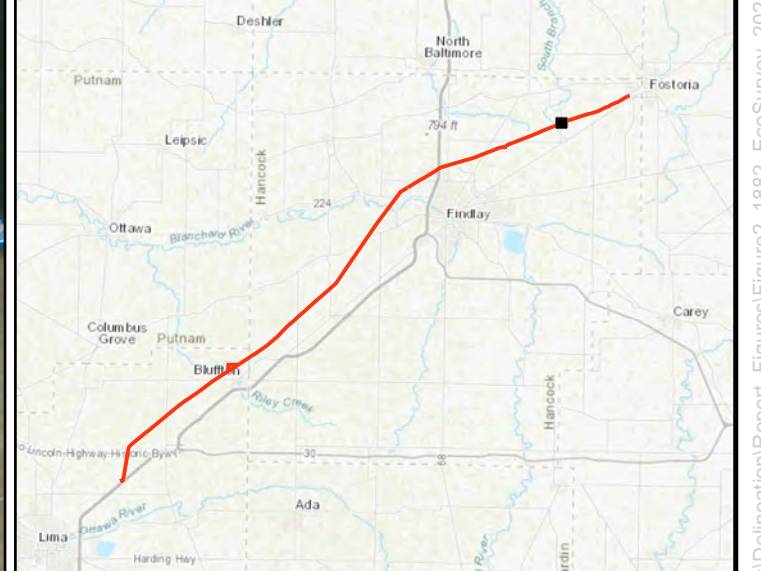
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 Project No. 1882

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland
- Wetland







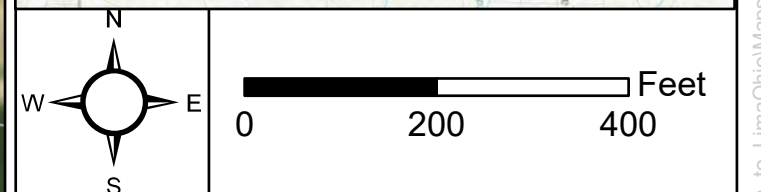
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 Project No. 1882



Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

-  Structure Location
-  Project Centerline
-  National Hydrography Dataset (NHD) Stream
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour
- National Wetland Inventory (NWI)**
-  Riverine



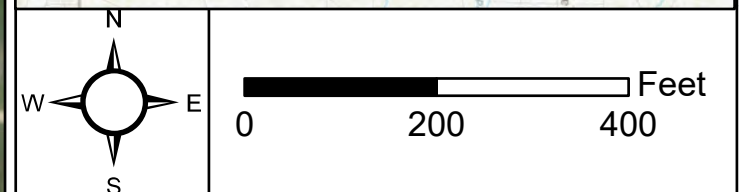
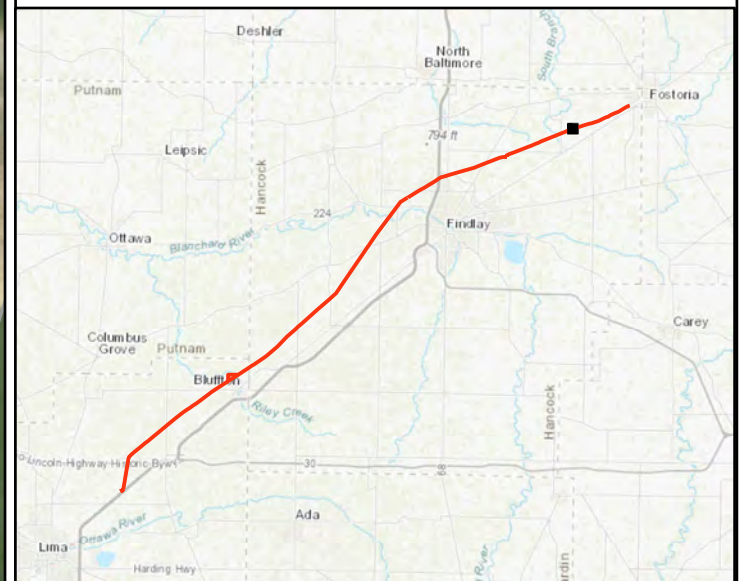
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 Project No. 1882

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



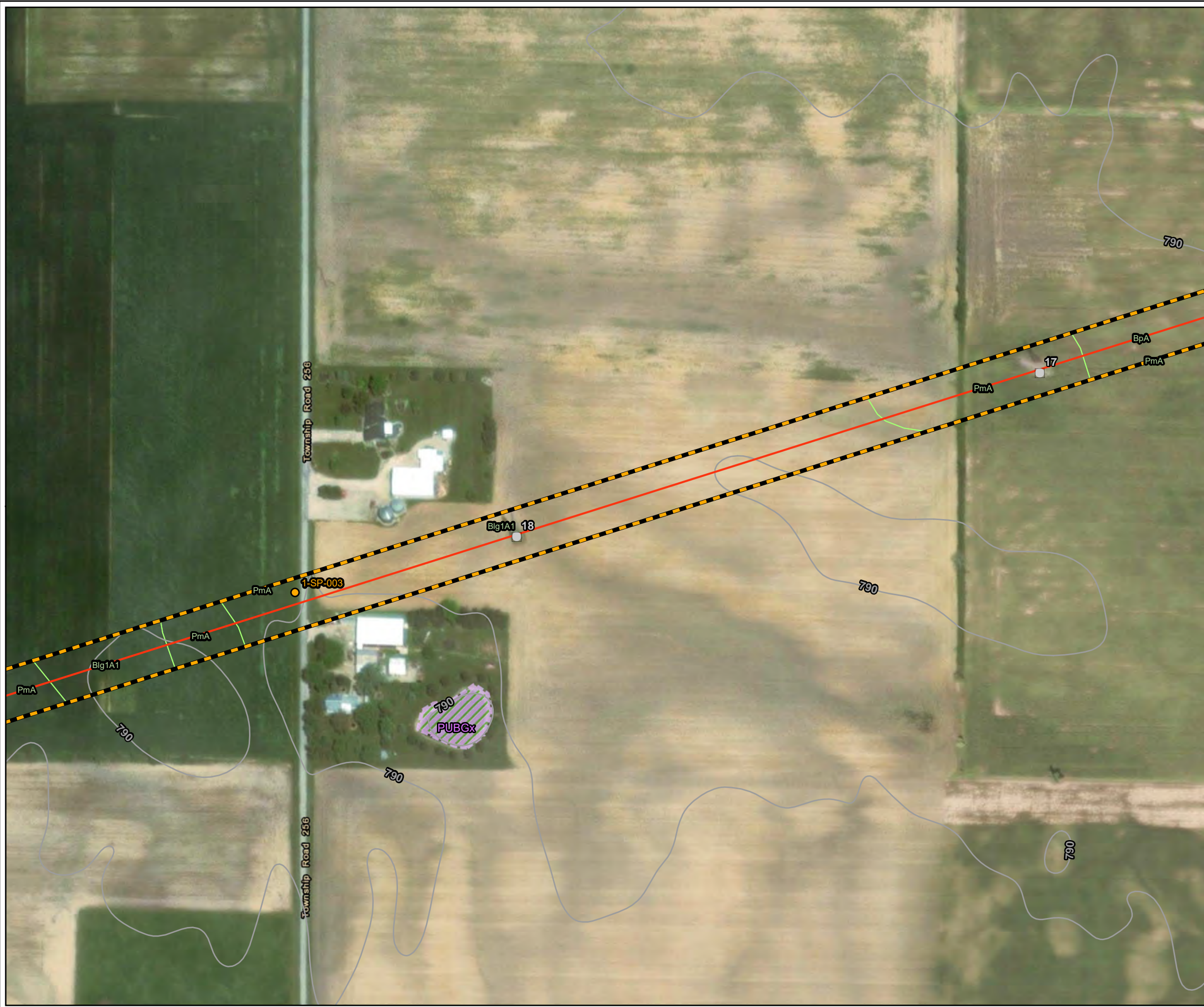
- Structure Location
- Project Centerline
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour



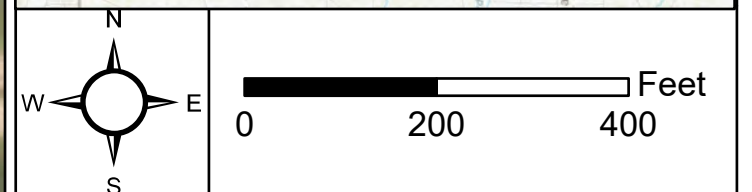
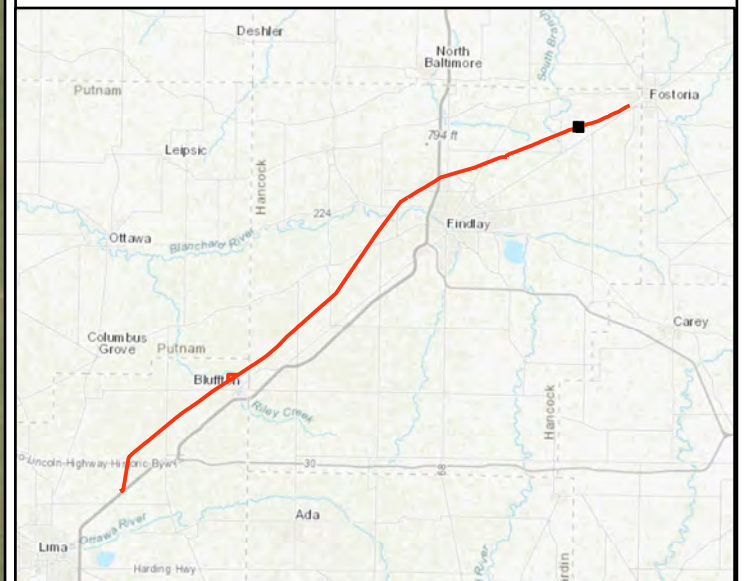
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 Project No. 1882

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- ▨ Freshwater Pond
- Sample Point**
- Upland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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 Project No. 1882

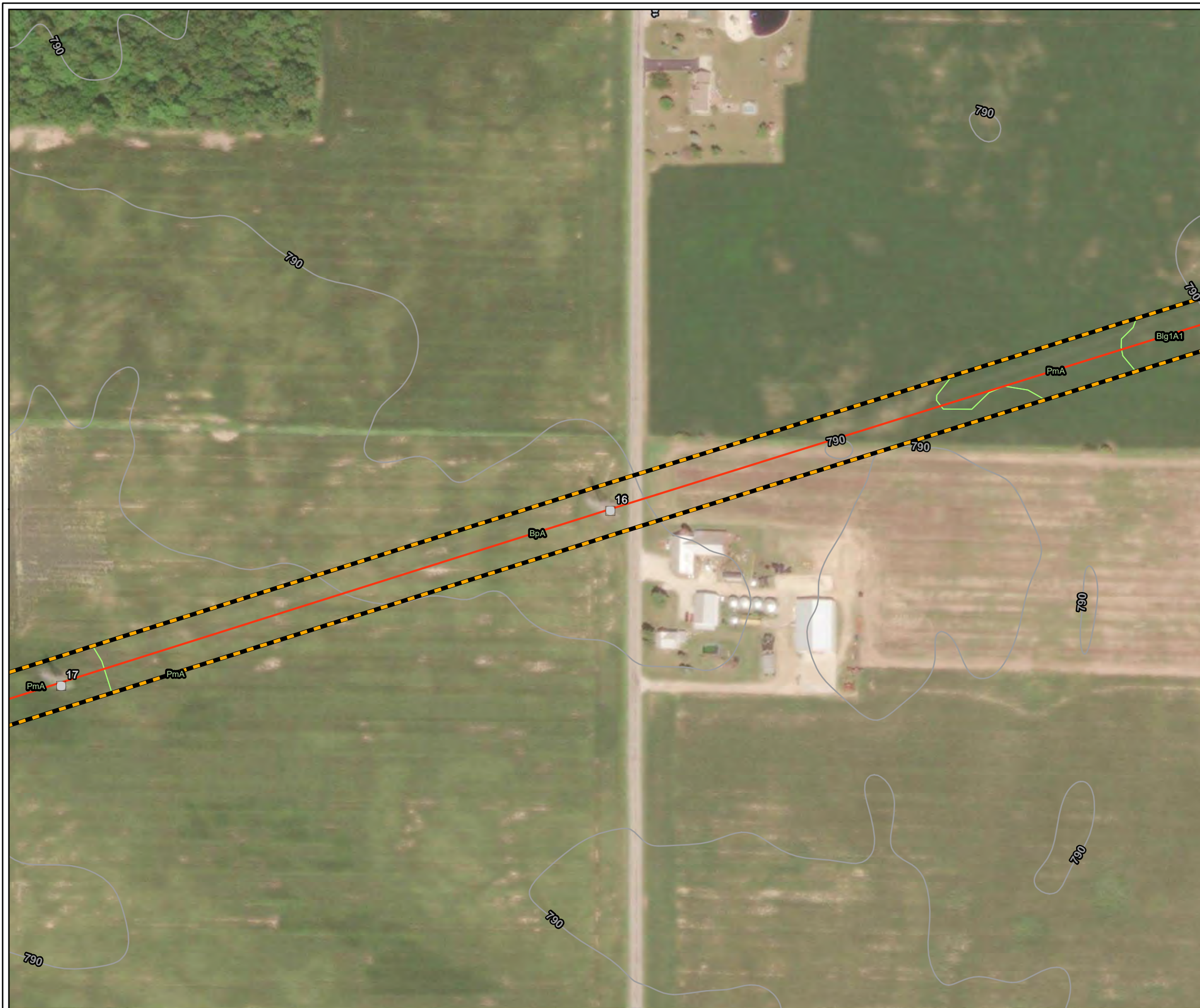
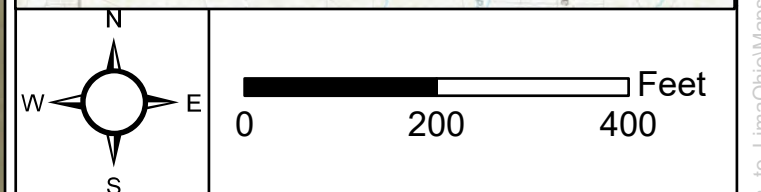


Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour








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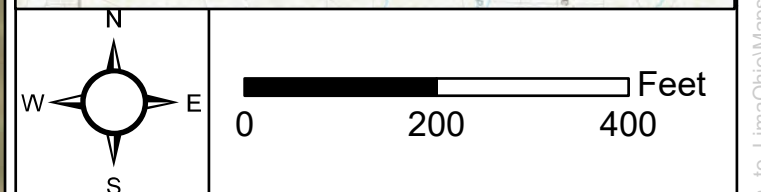


Project No. 1882



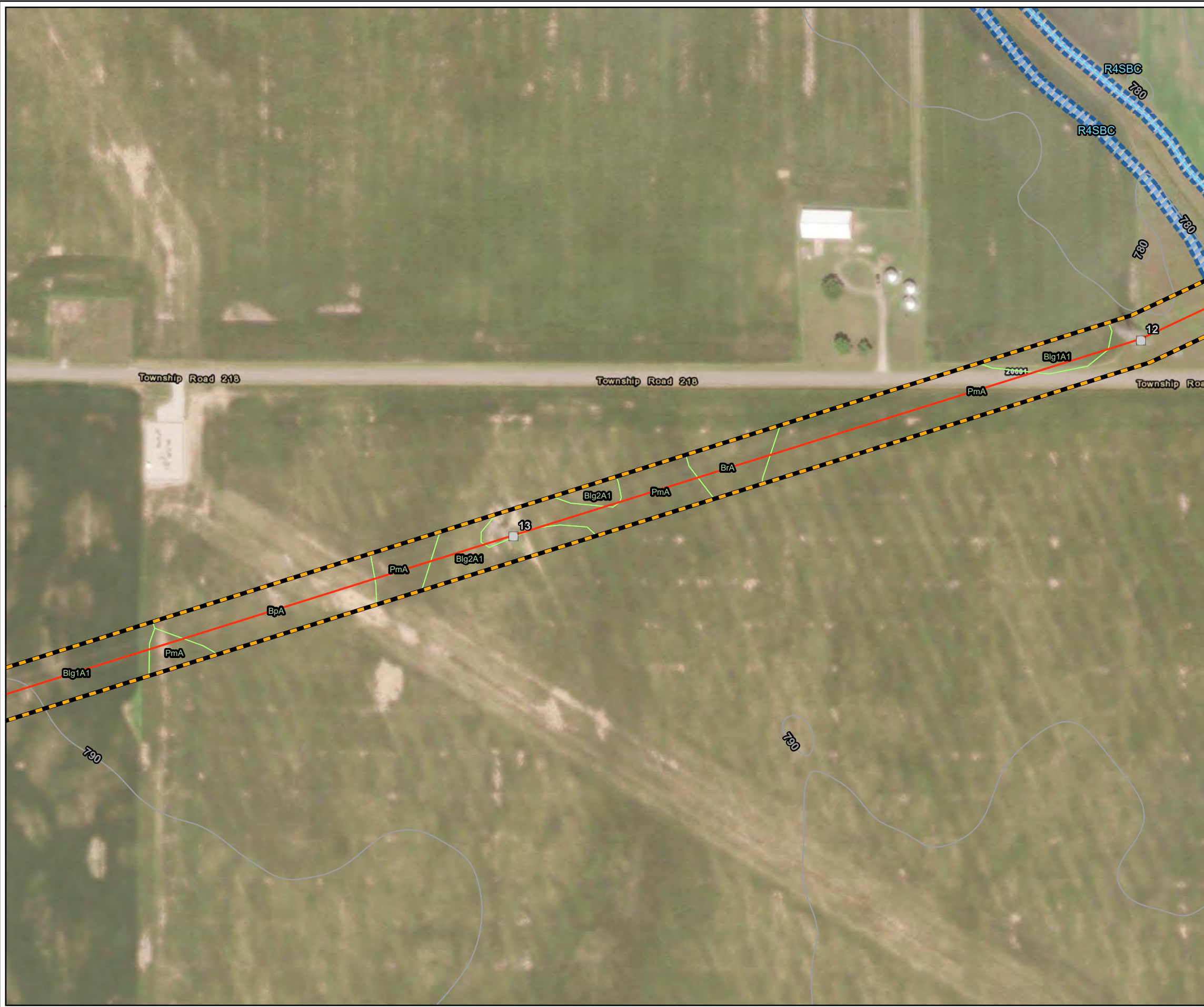
Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

-  Structure Location
-  Project Centerline
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour

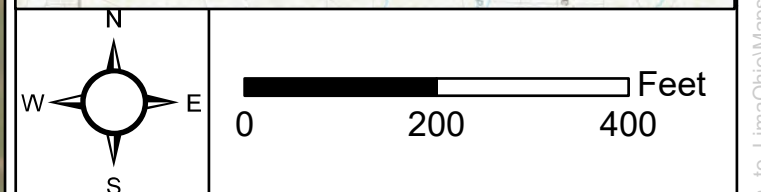


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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



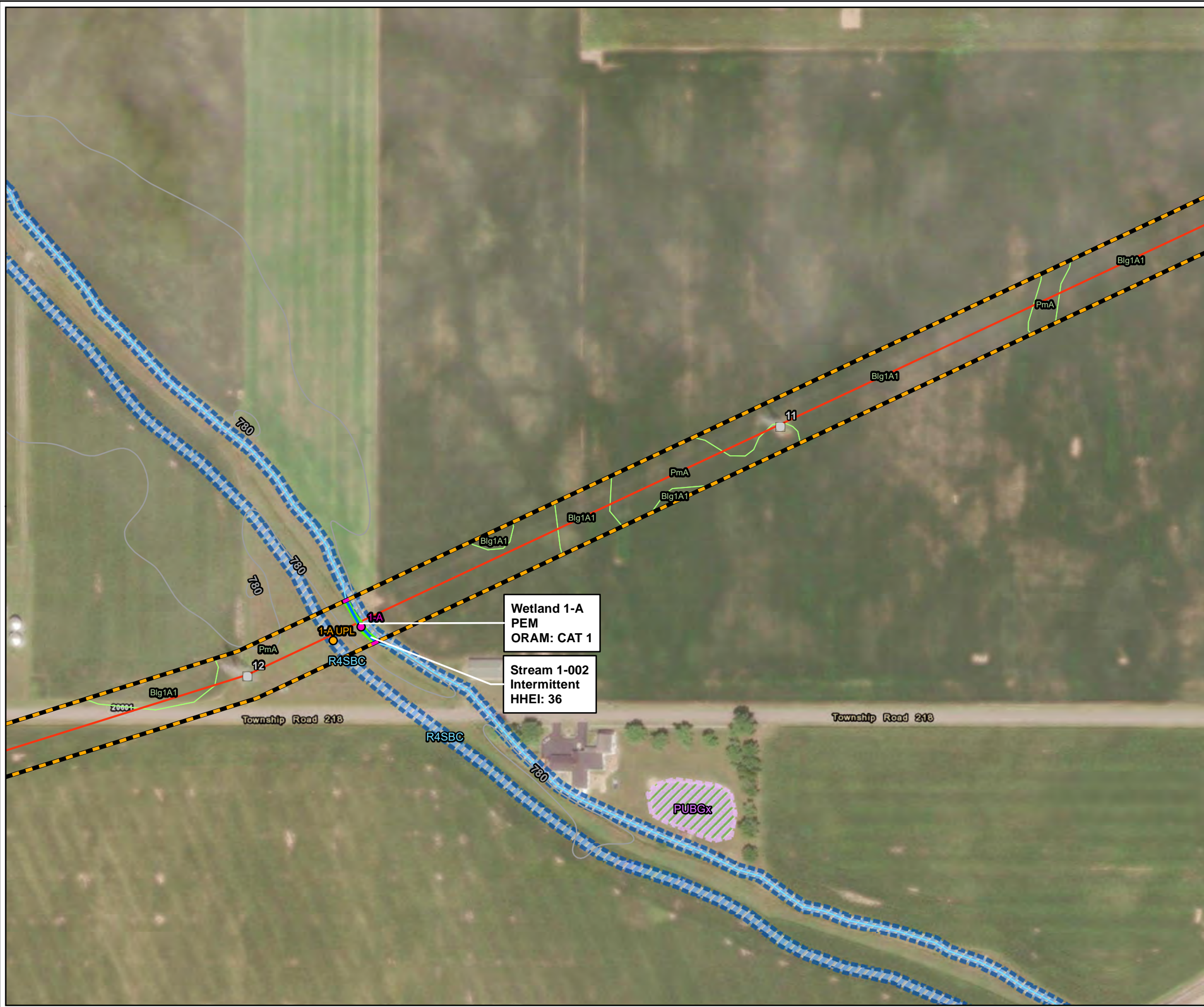
- Structure Location
 - Project Centerline
 - National Hydrography Dataset (NHD) Stream
 - Area of Investigation (AOI)
 - Soils
 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine



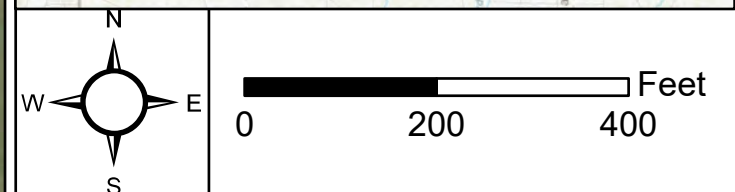
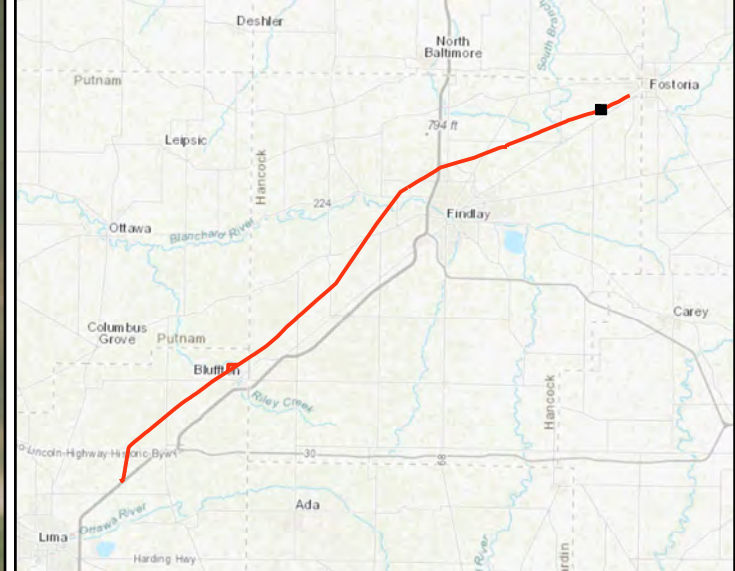
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Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- 10-Foot USGS Contour
- Field-Delineated Wetland**
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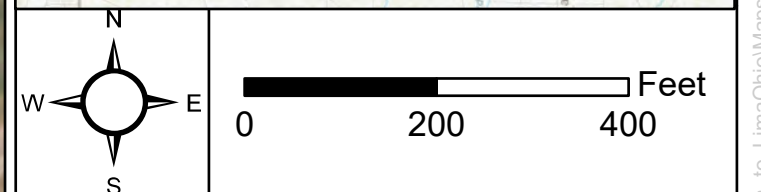
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- National Wetland Inventory (NWI)**
- ▨ Riverine








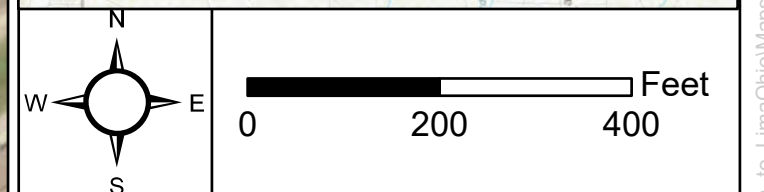
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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ESI ENVIRONMENTAL SOLUTIONS & INNOVATIONS, INC.
 Project No. 1882



Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

-  Structure Location
-  Project Centerline
-  Area of Investigation (AOI)
-  Soils
-  10-Foot USGS Contour



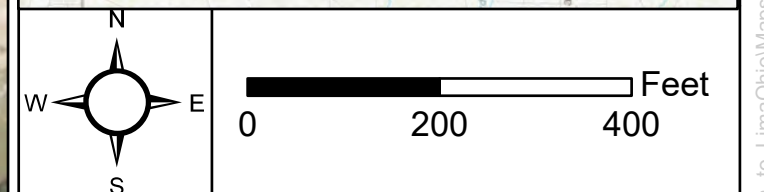
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ESI ENVIRONMENTAL SOLUTIONS & INNOVATIONS, INC.
 Project No. 1882



Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

- Structure Location
- Project Centerline
- ▭ Area of Investigation (AOI)
- ▭ Soils
- 10-Foot USGS Contour
- Sample Point**
- Upland

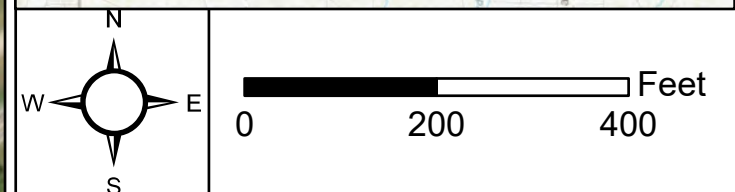


Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.

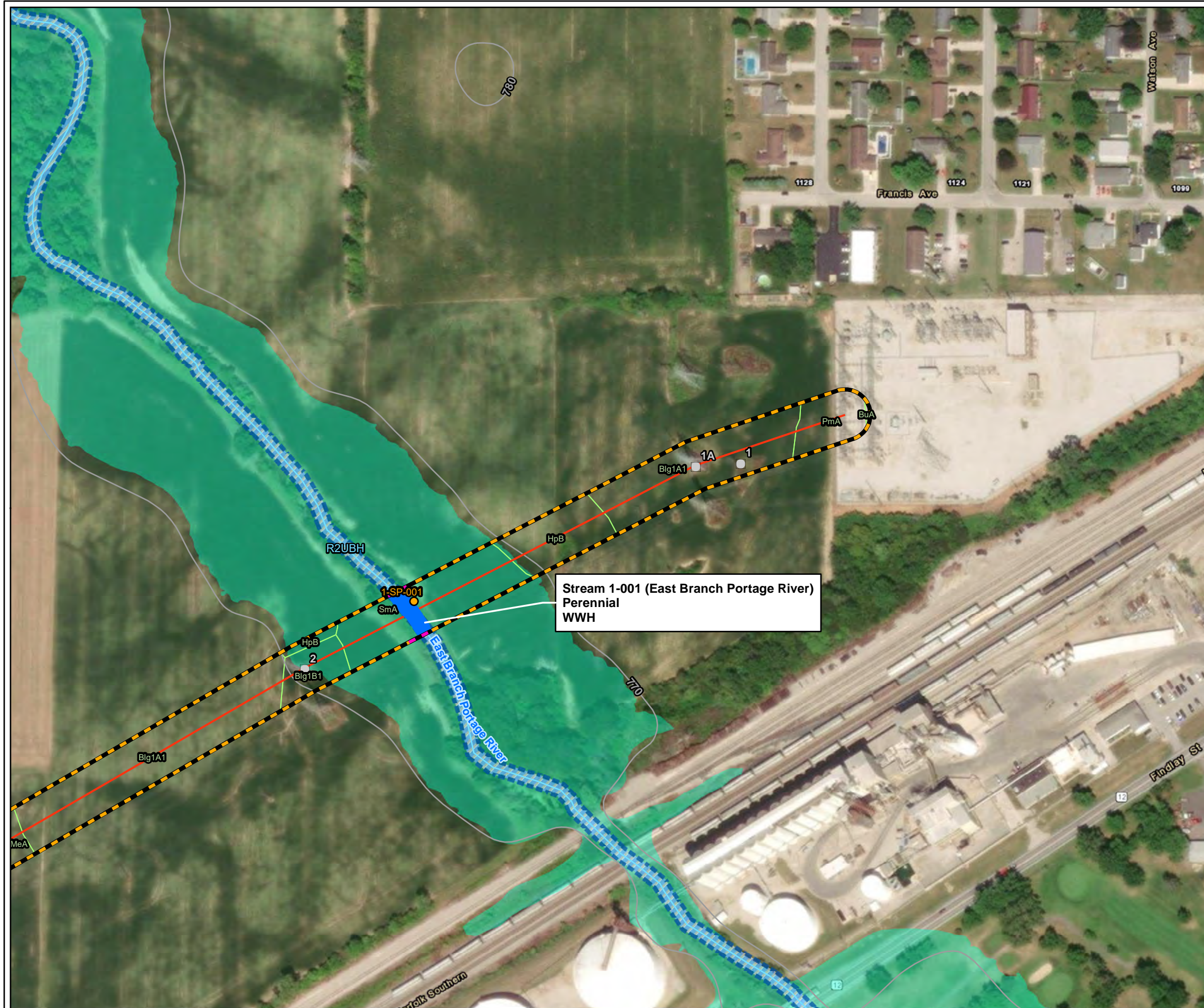


- Structure Location
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine

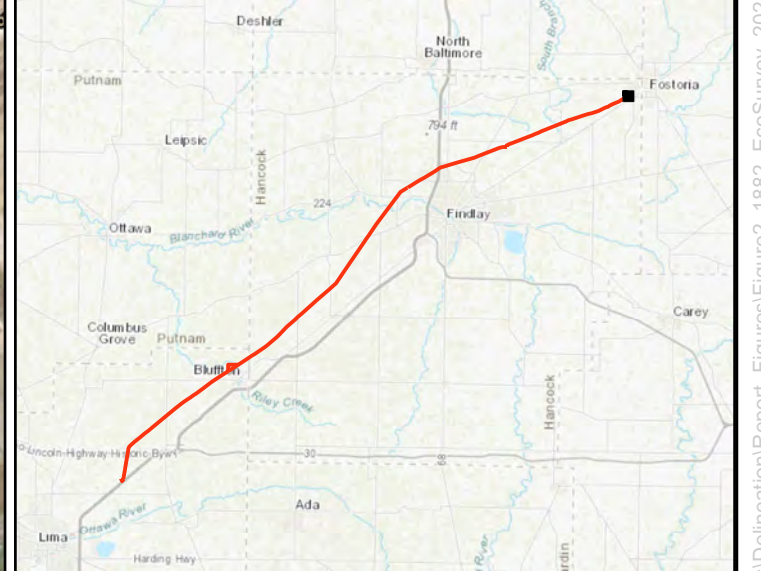


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 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Figure 2. Aquatic resource delineation on the AEP Fostoria—East Lima 138 kV Transmission Rebuild Project in Allen and Hancock Counties, Ohio.



- Structure Location
 - Resource Continues Off-Site
 - Project Centerline
 - National Hydrography Dataset (NHD) Stream
 - Field-Delineated Stream
 - Area of Investigation (AOI)
 - Soils
 - FEMA 100-Year Floodplain
 - 10-Foot USGS Contour
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

ESI ENVIRONMENTAL SOLUTIONS & INNOVATIONS, INC.
 Project No. 1882

APPENDIX B
AGENCY CORRESPONDENCE/DESKTOP ASSESSMENT



Tyler Russell

From: Ohio, FW3 <ohio@fws.gov>
Sent: Wednesday, July 27, 2022 9:30 AM
To: Tyler Russell
Cc: nathan.reardon@dnr.state.oh.us; Wyza, Eileen; Scott Denham; Cory Kwolek; Grant S Stuller
Subject: AEP Fostoria – East Lima Rebuild Project in Hancock County, Ohio

CAUTION: This email originated from outside of our organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe!



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



Project Code: 2022-0058530

Dear Mr. Russell,

The U.S Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥ 3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we

recommend removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <https://ecos.fws.gov/ecp/species/9045>), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present. If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice Ashfield". The signature is fluid and cursive, with a large initial "P" and "A".

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

August 8, 2022

Tyler Russell
Environmental Solutions & Innovations, Inc.
4300 Lynn Rd, Suite 205
Ravenna, OH 44266

Re: 22-0704; AEP Ohio Transmission Company, Inc. (AEP) - Fostoria – East Lima Line Rebuild Project

Project: The proposed project involves rebuilding the existing Fostoria - East Lima transmission line.

Location: The proposed project is located in Bath, Monroe, and Richland Townships, Allen County, and Union, Blanchard, Allen, Cass, and Washington Townships, Hancock County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following data at or within one mile of the project area:

Rock Elm (*Ulmus thomasii*), P
Least Darter (*Etheostoma microperca*), SC
Elktoe (*Alasmidonta marginata*), SC
Creek Heelsplitter (*Lasmigona compressa*), SC
Kidneyshell (*Ptychobranhus fasciolaris*), SC
Salamander Mussel (*Simpsonaias ambigua*), T
Deertoe (*Truncilla truncata*), SC

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened.

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "[OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING](#)". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "[RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES](#)." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species.

Federally Endangered

clubshell (*Pleurobema clava*)

rayed bean (*Villosa fabalis*)

State Endangered

purple lilliput (*Toxolasma lividum*)

State Threatened

pondhorn (*Uniomereus tetralasmus*)

Salamander Mussel (*Simpsonaias ambigua*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the western banded killifish (*Fundulus diaphanus menona*), a state endangered fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet meadows and other wetlands. The DOW recommends that an approved herpetologist conducts a habitat suitability survey to determine if suitable habitat is present within the project area. If suitable habitat is determined to be present; the DOW recommends that a presence/absence survey be conducted, or an avoidance/minimization plan be developed and implemented by the approved herpetologist. A list of [approved herpetologists](#) has been provided for your convenience.

The project is within the range of the black-crowned night-heron (*Nycticorax nycticorax*), a state-threatened bird. Night-herons are so named because they are nocturnal, conducting most of their foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day. Night herons are migratory and are typically found in Ohio from April 1 through December 1 but can be found in more urbanized areas with reliable food sources year-round. Black-crowned night-herons primarily forage in wetlands and other shallow aquatic habitats, and roost in trees nearby. These night-herons nest in small trees, saplings, shrubs, or sometimes on the ground, near bodies of water and wetlands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To:
Project code: 2022-0058530
Project Name: 1882 AEP Fostoria to East Lima Project

June 29, 2022

Subject: Consistency letter for the '1882 AEP Fostoria to East Lima Project' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Cory Kwolek:

The U.S. Fish and Wildlife Service (Service) received on June 29, 2022 your effects determination for the '1882 AEP Fostoria to East Lima Project' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause “take”^[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action’s effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Indiana Bat *Myotis sodalis* Endangered

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

1882 AEP Fostoria to East Lima Project

2. Description

The following description was provided for the project '1882 AEP Fostoria to East Lima Project':

Electrical transmission line rebuild

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.1088864,-83.56901324526282,14z>



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

No

2. Will your activity purposefully **Take** northern long-eared bats?

No

3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

Automatically answered

No

4. [Semantic] Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

Automatically answered

No

5. [Semantic] Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

Automatically answered

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

5

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

IPaC User Contact Information

Agency: Environmental Solutions & Innovations, Inc.

Name: Cory Kwolek

Address: 4300 Lynn Road, Suite 205

City: Ravenna

State: OH

Zip: 44266

Email: ckwolek@envsi.com

Phone: 9376712103



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To:
Project Code: 2022-0058530
Project Name: 1882 AEP Fostoria to East Lima Project

June 28, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

(614) 416-8993

Project Summary

Project Code: 2022-0058530
Event Code: None
Project Name: 1882 AEP Fostoria to East Lima Project
Project Type: Distribution Line - Maintenance/Modification - Above Ground
Project Description: Electrical transmission line rebuild
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.1088864,-83.56901324526282,14z>



Counties: Allen and Hancock counties, Ohio

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Incidental take of the northern long-eared bat is not prohibited at this location. Federal action agencies may conclude consultation using the streamlined process described at https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Environmental Solutions & Innovations, Inc.

Name: Cory Kwolek

Address: 4300 Lynn Road, Suite 205

City: Ravenna

State: OH

Zip: 44266

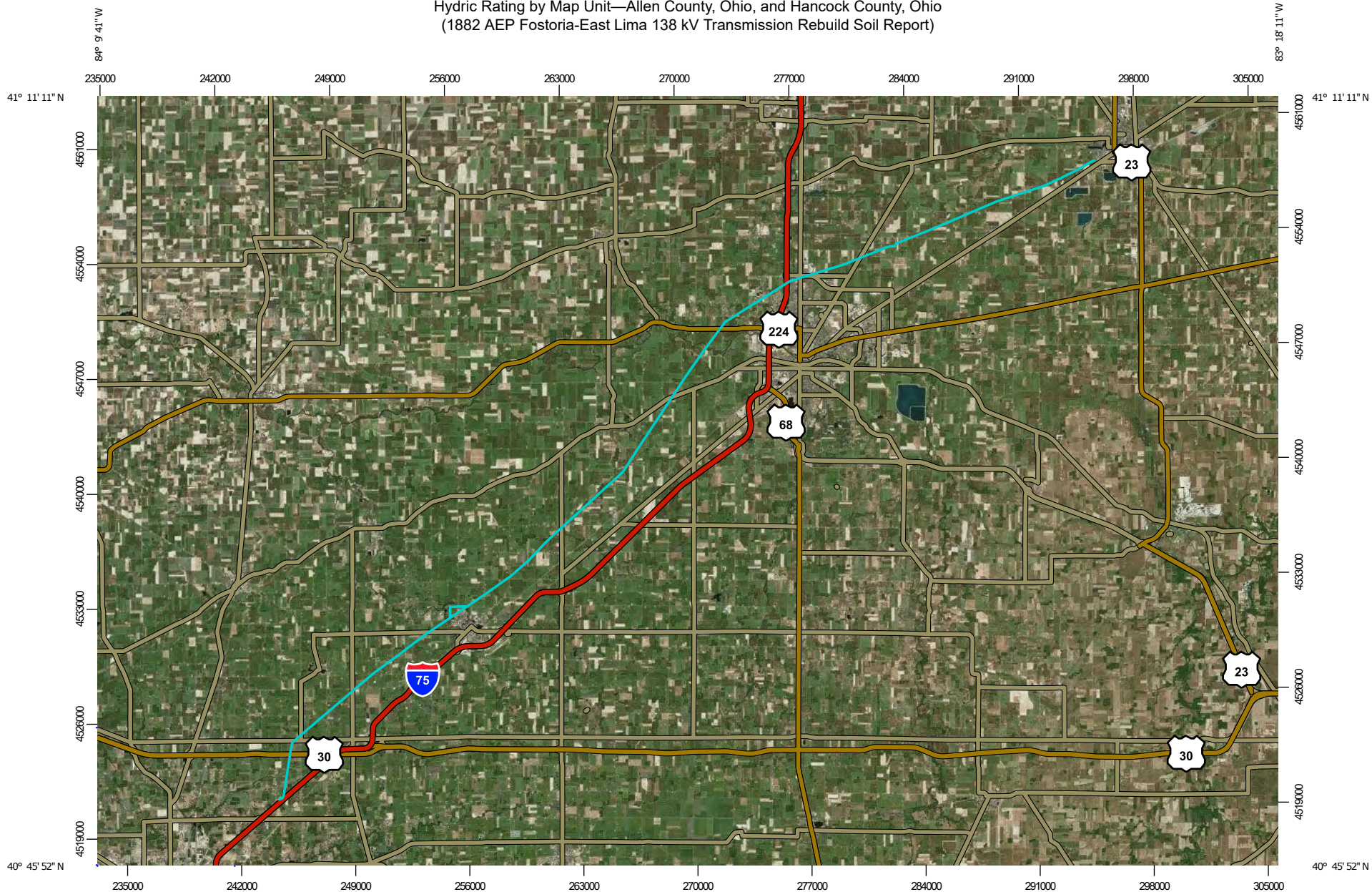
Email: ckwolek@envsi.com

Phone: 9376712103

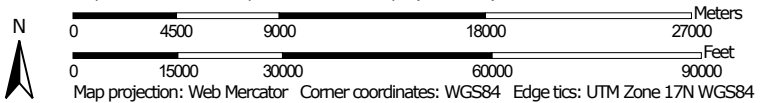
**APPENDIX C
SOIL REPORT**



Hydric Rating by Map Unit—Allen County, Ohio, and Hancock County, Ohio
(1882 AEP Fostoria-East Lima 138 kV Transmission Rebuild Soil Report)



Map Scale: 1:330,000 if printed on A landscape (11" x 8.5") sheet.









MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available


Soil Rating Lines

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available






Soil Rating Points

 Hydric (100%)
 Hydric (66 to 99%)
 Hydric (33 to 65%)
 Hydric (1 to 32%)
 Not Hydric (0%)
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Allen County, Ohio
 Survey Area Data: Version 21, Aug 31, 2021

Soil Survey Area: Hancock County, Ohio
 Survey Area Data: Version 22, Sep 8, 2021

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ble1A1	Blount silt loam, end moraine, 0 to 2 percent slopes	6	1.9	0.4%
Ble1B1	Blount silt loam, end moraine, 2 to 4 percent slopes	6	2.3	0.4%
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	9	22.7	4.4%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	9	45.4	8.9%
CyA	Cygnets loam, 0 to 3 percent slopes	10	0.9	0.2%
Gwg1B1	Glynwood silt loam, ground moraine, 2 to 6 percent slopes	6	19.0	3.7%
Gwg5B2	Glynwood clay loam, ground moraine, 2 to 6 percent slopes, eroded	6	3.8	0.7%
Gwg5C2	Glynwood clay loam, ground moraine, 6 to 12 percent slopes, eroded	7	3.0	0.6%
HrB	Houcktown loam, 2 to 6 percent slopes	5	1.7	0.3%
HuC2	Houcktown-Glynwood complex, 6 to 12 percent slopes, eroded	5	0.3	0.1%
LcD2	Lybrand silty clay loam, 12 to 20 percent slopes, eroded	0	0.2	0.0%
MbA	Medway silt loam, 0 to 2 percent slopes, occasionally flooded	5	2.7	0.5%
PmA	Pewamo silty clay loam, 0 to 1 percent slopes	91	39.5	7.7%
RdA	Rensselaer loam, 0 to 1 percent slopes	88	3.4	0.7%
SfB	Shawtown loam, 2 to 6 percent slopes	0	1.7	0.3%
ShA	Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	8	1.3	0.3%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
SrA	Sloan silty clay loam, till substratum, 0 to 1 percent slopes, frequently flooded	90	3.8	0.7%
W	Water	0	0.3	0.1%
Subtotals for Soil Survey Area			153.8	30.1%
Totals for Area of Interest			511.4	100.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ArA	Aurand loam, 0 to 2 percent slopes	9	4.4	0.9%
Ble1A1	Blount silt loam, end moraine, 0 to 2 percent slopes	6	0.9	0.2%
Ble1B1	Blount silt loam, end moraine, 2 to 4 percent slopes	6	0.3	0.1%
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	9	46.6	9.1%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	9	27.0	5.3%
Blg2A1	Blount loam, ground moraine, 0 to 2 percent slopes	6	3.8	0.8%
BpA	Blount-Houcktown complex, 0 to 3 percent slopes	5	26.4	5.2%
BrA	Blount-Jenera complex, 0 to 3 percent slopes	5	3.2	0.6%
BuA	Blount-Urban land complex, 0 to 2 percent slopes	9	0.0	0.0%
DfA	Del Rey-Blount complex, 0 to 3 percent slopes	5	11.8	2.3%
FoB	Fox loam, 2 to 6 percent slopes	0	0.6	0.1%
GaB	Gallman loam, 2 to 6 percent slopes	0	1.6	0.3%
GsB	Glynwood-Blount-Houcktown complex, 1 to 4 percent slopes	7	36.5	7.1%
Gwe1B1	Glynwood silt loam, end moraine, 2 to 6 percent slopes	6	8.8	1.7%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Gwg1B1	Glynwood silt loam, ground moraine, 2 to 6 percent slopes	6	1.7	0.3%
Gwg5B2	Glynwood clay loam, ground moraine, 2 to 6 percent slopes, eroded	6	1.1	0.2%
Gwg5C2	Glynwood clay loam, ground moraine, 6 to 12 percent slopes, eroded	7	3.2	0.6%
HpA	Houcktown loam, 0 to 2 percent slopes	4	1.2	0.2%
HpB	Houcktown loam, 2 to 6 percent slopes	9	2.7	0.5%
HrB	Houcktown-Glynwood-Jenera complex, 1 to 4 percent slopes	5	1.1	0.2%
JeA	Jenera fine sandy loam, 0 to 2 percent slopes	5	0.3	0.1%
JeB	Jenera fine sandy loam, 2 to 6 percent slopes	4	2.5	0.5%
LbA	Lamberjack loam, 0 to 2 percent slopes	5	0.9	0.2%
LyE	Lybrand silt loam, 18 to 50 percent slopes	0	2.3	0.4%
McA	Medway silt loam, limestone substratum, 0 to 2 percent slopes, occasionally flooded	10	9.3	1.8%
MeA	Mermill loam, 0 to 1 percent slopes	90	0.9	0.2%
MpD3	Morley clay loam, 12 to 18 percent slopes, severely eroded	0	4.1	0.8%
OrA	Oshtemo fine sandy loam, 0 to 2 percent slopes	0	6.1	1.2%
OrB	Oshtemo fine sandy loam, 2 to 6 percent slopes	0	2.8	0.5%
OrC	Oshtemo fine sandy loam, 6 to 12 percent slopes	0	0.6	0.1%
OsB	Oshtemo sandy loam, till substratum, 2 to 6 percent slopes	0	2.4	0.5%
PmA	Pewamo silty clay loam, 0 to 1 percent slopes	91	98.5	19.3%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
RhA	Rensselaer loam, till substratum, 0 to 1 percent slopes	90	7.8	1.5%
RnA	Rimer loamy sand, 0 to 2 percent slopes	5	0.0	0.0%
RoA	Rimer loamy fine sand, deep phase, 0 to 2 percent slopes	5	0.0	0.0%
RtA	Rosburg silt loam, 0 to 2 percent slopes, occasionally flooded	10	1.9	0.4%
SeB	Shawtown loam, 2 to 6 percent slopes	0	2.0	0.4%
SkB	Shinrock, till substratum-Glynwood complex, 1 to 4 percent slopes	10	2.9	0.6%
SmA	Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	8	0.9	0.2%
SnA	Sloan loam, 0 to 1 percent slopes, occasionally flooded	90	1.5	0.3%
SoA	Sloan silty clay loam, 0 to 1 percent slopes, occasionally flooded	94	2.4	0.5%
SpA	Sloan silty clay loam, limestone substratum, 0 to 1 percent slopes, occasionally flooded	90	5.2	1.0%
ThA	Thackery loam, till substratum, 0 to 2 percent slopes	5	2.7	0.5%
TkA	Tiderishi loam, 0 to 2 percent slopes	10	1.8	0.3%
TpA	Tuscola fine sandy loam, 0 to 2 percent slopes	5	1.0	0.2%
TpB	Tuscola fine sandy loam, 2 to 6 percent slopes	5	1.1	0.2%
VaA	Vanlue loam, 0 to 2 percent slopes	2	1.9	0.4%
W	Water	0	0.1	0.0%
WeA	Westland-Rensselaer complex, 0 to 1 percent slopes	92	10.0	2.0%
Subtotals for Soil Survey Area			357.1	69.8%
Totals for Area of Interest			511.4	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Percent Present" returns the cumulative percent composition of all components of a map unit for which a certain condition is true. For example, attribute "Hydric Rating by Map Unit" returns the cumulative percent composition of all components of a map unit where the corresponding hydric rating is "Yes". Conditions may be simple or complex. At runtime, the user may be able to specify all, some or none of the conditions in question.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

**APPENDIX D
NWI TABLE**

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
NWI DISPOSITION SUMMARY TABLE**

8/23/2022

NWI Code	NWI Description	Figure 2	Related Field Inventoried Resource (Wetland ID / Stream ID)	Comments
PEM1A	Palustrine, emergent, persistent, temporary flooded	2-3	-	NWI boundary depicted on map was field verified with 1-SP-023 and does not extend into project survey area.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-3	-	NWI boundary depicted on map was field verified and does not extend into project survey area.
R5UBH	Riverine, unknown perennial, unconsolidated bottom, permanently flooded	2-4	1-028	Stream 1-028 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-7	-	NWI boundary depicted on map was field verified with 1-SP-021 and does not extend into project survey area.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-8	1-AL	Wetland 1-AL extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
PSS1C	Palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded	2-10	-	NWI boundary depicted on map was field verified with 1-SP-019 and does not extend into project survey area.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-12	-	Stream 1-027 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-13	1-AK	Wetland 1-AK extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-14	1-AJ	Wetland 1-AJ extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-14	1-AK	Wetland 1-AK extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-15	-	NWI boundary depicted on map was field verified with 1-SP-018 and does not extend into project survey area.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-16	-	NWI boundary depicted on map was field verified with 1-SP-017 and does not extend into project survey area.

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
NWI DISPOSITION SUMMARY TABLE**

8/23/2022

R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-17	-	NWI boundary depicted on map was field verified with 1-SP-016 and does not extend into project survey area.
R5UBH	Riverine, unknown perennial, unconsolidated bottom, permanently flooded	2-18, 2-19	-	Stream 1-026 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-21,2-22	-	NWI boundary depicted on map was field verified with 1-SP-015 and does not extend into project survey area.
PFO1A	Palustrine, forested, broad-leaved deciduous, temporary flooded	2-26	-	NWI boundary depicted on map was field verified with 1-SP-013 and does not extend into project survey area.
PUBG	Palustrine, unconsolidated bottom, intermittently exposed	2-27,2-28	1-AH	Wetland complex 1-AH extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
PUBGx	Palustrine, unconsolidated bottom, intermittently exposed, excavated	2-27,2-28	1-AH PEM /1-AH PFO (2)	Wetland complex 1-AH extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-27	1-AH PFO (1)/1-AH PFO (2),1-025	Wetland complex 1-AH and stream 1-025 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-37	1-026	Stream 1-026 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-37,2-38	1-024	Stream 1-024 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-38	1-023	Stream 1-023 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-39	1-022	Stream 1-023 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-41	1-020 (Ottawa Creek)	Stream 1-023 extends outside project survey area.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-41,2-242	1-020, 1-AF, 1-AE	Stream 1-023, wetland 1-AF and wetland 1-AE extends outside project survey area.

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
NWI DISPOSITION SUMMARY TABLE**

8/23/2022

PUBGx	Palustrine, unconsolidated bottom, intermittently exposed, excavated	2-44	1-AD	Wetland 1-AD extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-45	1-019	Stream 1-019 extends outside project survey area.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-46,2-27	1-017,1-018	Stream 1-017 and 1-018 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-54	1-016	Stream 1-016 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-55,2-26	1-014	Stream 1-014 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-59	1-AB,1-013	Wetland 1-AB and stream 1-013 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
PFO1C	Palustrine, forested, broad-leaved deciduous, seasonally flooded	2-60	1-AC	Wetland 1-AC extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-60	1-AC,1-015	Wetland 1-AC and stream 1-015 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
PUBG	Palustrine, unconsolidated bottom, intermittently exposed	2-60,2-61	1-P-006	Pond 1-P-006 extends outside project survey area.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-62	1-AA,1-012	Wetland 1-AA and stream 1-012 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
PFO1C	Palustrine, forested, broad-leaved deciduous, seasonally flooded	2-64	1-X	Wetland 1-X extends outside project survey area.
R5UBH	Riverine, unknown perennial, unconsolidated bottom, permanently flooded	2-64	1-Y,1-011	Wetland 1-Y and stream 1-011 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-66,2-67	1-010	Stream 1-010 extends outside project survey area.

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
NWI DISPOSITION SUMMARY TABLE**

8/23/2022

PEM1A	Palustrine, emergent, persistent, temporary flooded	2-70,2-71	-	No field verified wetland
PUBGx	Palustrine, unconsolidated bottom, intermittently exposed, excavated	2-71	1-P-004	Pond 1-P-004 extends outside project survey area.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-75	1-R	Wetland 1-R extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-76	1-Q	Wetland 1-Q extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-78	1-009	1-009
PEM1C	Palustrine, emergent, persistent, seasonally flooded	2-79	1-K,1-P-001	None
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-79	1-M,1-008	Wetland 1-M and stream 1-008 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-82	1-007	Stream 1-007 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-83	1-007	Stream 1-007 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-86	1-D,1-006 (Rocky Ford)	Wetland 1-D and stream 1-006 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-88	1-C,1-005	Wetland 1-C and stream 1-005 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-91	1-004	Stream 1-004 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-91,2-32	1-B,1-003	Wetland 1-B and stream 1-003 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
 NWI DISPOSITION SUMMARY TABLE**

8/23/2022

R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-99	Upland 1-A	No field verified stream
R4SBC	Riverine, intermittent, streambed, seasonally flooded	2-99	1-A,1-002	Wetland 1-A and stream 1-002 extends outside project survey area. NWI boundary depicted on map differs from field verified boundary.
R2UBH	Riverine, lower perennial, unconsolidated bottom, permanently flooded	2-104	1-001	Stream 1-001 extends outside project survey area.

APPENDIX E
RTE TABLE



ECOLOGICAL RESOURCES INVENTORY REPORT, AEP FOSTORIA - EAST LIMA 138KV TRANSMISSION REBUILD PROJECT, ALLEN AND HANCOCK COUNTIES, OHIO

Results

July 22, 2022 and August 8, 2022

RARE, THREATENED, OR ENDANGERED SPECIES HABITAT

Summary of Potential Ohio State-Listed and Federally Listed Species within the AEP Fostoria - East Lima 138kV Transmission Rebuild Project Area, Allen and Hancock Counties, Ohio

Common/Scientific Name	Federal Listing ¹	State Listing ¹	Habitat Preference	Habitat Observed in Project Area?	Aviodance Dates	Agency Comment ²	Potential Impacts
Birds							
Northern harrier/ <i>Circus cyaneus</i>	N/A	E	This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands.	No	15 April through 31 July	If this type of habitat will be impacted, avoid construction during nesting 15 April through 31 July. If habitat is not impacted, the project is not likely to impact the species.	No
Black-crowned night-heron/ <i>Nycticorax nycticorax</i>	N/A	T	Night-herons are so named because they are nocturnal, conducting most of their foraging in the evening hours or at night, and roost in trees near wetlands and waterbodies during the day.	No	1 May through 31 July	If this type of habitat is impacted, avoid construction during nesting 1 May through 31 July. If habitat is not impacted, the project is not likely to impact the species.	No
Least bittern/ <i>Ixobrychus exilis</i>	N/A	T	This marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water.	No	1 May through 31 July	If this type of habitat is impacted, avoid construction during nesting 1 May through 31 July. If this type of habitat will not be impacted, this project is not likely to impact this species.	No
Amphibians							
Kirtland's snake/ <i>Clonophis kirtlandii</i>	N/A	T	This species prefers wet meadows and other wetlands.	No	Year round	Based on location, project area habitat type, and work proposed, the project is not likely to impact the species.	No
Mammals							
Indiana Bat/ <i>Myotis sodalis</i>	E	E	Suitable summer habitat for the Indiana bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed. Habitats potentially include adjacent and interspersed non-forested habitats such as emergent wetlands, agricultural fields, woodlots, fallow fields, and pastures.	Yes	1 April through 30 September	FWS and ODNR-DOW recommend conserving trees exhibiting loose, shaggy bark and/or crevices, holes, or cavities. Tree cutting is recommended between 1 October and 31 March. If suitable trees must be cut during summer months, ODNR-DOW recommends completion of a mist net or acoustic survey between 1 June and 15 August, prior to any cutting. If no tree removal is proposed, the project is not likely to impact this species. A desktop assessment for features potentially suitable as bat hibernacula was conducted and partial searches were completed within the Project's AOI. No features potentially suitable for hibernating bat use were documented.	Yes:
Northern Long-eared Bat/ <i>Myotis septentrionalis</i>	T	T	Suitable summer habitat for the Northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed. These habitats may also include adjacent and interspersed non-forested habitats such as emergent wetlands, agricultural fields, woodlots, fallow fields, and pastures.	Yes	1 April through 30 September	Same as above for Indiana Bat.	Same as above for Indiana Bat.

Little Brown Bat/ <i>Myotis lucifugus</i>	N/A	E	During spring and summer (1 April through 30 September), the species predominately roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, the species is also dependent on forest structure surrounding roost trees.	Yes	1 April through 30 September	Same as above for Indiana Bat.	Same as above for Indiana Bat.
Tricolored Bat/ <i>Perimyotis subflavus</i>	N/A	E	During spring and summer (1 April through 30 September), the species predominately roosts in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, the species is also dependent on forest structure surrounding roost trees.	Yes	1 April through 30 September	Same as above for Indiana Bat.	Same as above for Indiana Bat.
Freshwater Mussels							
Clubshell/ <i>Pleurobema clava</i>	E	E	Freshwater streams as defined in the Ohio Mussel Survey Protocol (2020)	Yes	Year round	Conduct mussel surveys if in-stream impacts are anticipated in listed streams. Relocate any mussels found prior to in-stream construction.	Yes
Rayed bean/ <i>Villosa fabalis</i>	E	E	Freshwater streams as defined in the Ohio Mussel Survey Protocol (2020)	Yes	Year round	Same comment as above for Clubshell	Yes
Salamander Mussell/ <i>Simpsonaias ambigua</i>	N/A	T	Freshwater streams as defined in the Ohio Mussel Survey Protocol (2020)	Yes	Year round	Same comment as above for Clubshell	Yes
Pond Horn/ <i>Unio merus tetralasmus</i>	N/A	T	Freshwater streams as defined in the Ohio Mussel Survey Protocol (2020)	Yes	Year round	Same comment as above for Clubshell	Yes
Purple lilliput/ <i>Toxolasma lividus</i>	N/A	E	Freshwater streams as defined in the Ohio Mussel Survey Protocol (2020)	Yes	Year round	Same comment as above for Clubshell	Yes
Fish							
Western banded killifish/ <i>Fundulus diaphanus menona</i>	N/A	E	Found in perennial streams	Yes	15 March through 30 June	ODNR-DOW recommends no in-water work in perennial streams during avoidance dates. If no in-water work is proposed in a perennial stream, the project is not likely to impact this or other aquatic species.	Yes
<small>E=Endangered; T=Threatened; S=Species Of Concern; SI=Special Interest *Information is based on literature review information response from ODNR-DOW and USFWS</small>							

APPENDIX F
WETLAND, STREAM AND POND TABLES



**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
WETLAND TABLE**

8/23/2022

Wetland ID	Location		Isolated?	Habitat Type	Delineated Area (acre)	ORAM	
	Latitude	Longitude				Score	Category
1-A	41.1376	-83.4709	Yes	PEM	0.030	21	1
1-B	41.1251	-83.5178	Yes	PEM	0.054	21	1
1-C	41.1178	-83.5403	Yes	PEM	0.025	21	1
1-D	41.1128	-83.5562	Yes	PSS	0.085	32	2
1-E	41.1049	-83.5804	No	PEM	0.096	13	1
1-F	41.1047	-83.5802	No	PEM	0.015	12	1
1-G	41.1045	-83.5805	No	PEM	0.049	12	1
1-H	41.1039	-83.5805	Yes	PEM	0.003	12	1
1-I	41.1041	-83.5819	Yes	PEM	0.013	14	1
1-J	41.0993	-83.6008	No	PEM	0.243	30	1
1-K	41.0991	-83.6014	No	PEM	0.082	46	2
1-L	41.0989	-83.6017	Yes	PEM	0.038	32	2
1-M	41.0989	-83.6022	No	PEM	0.041	29	1
1-N	41.0957	-83.6128	No	PEM	0.030	31	2
1-O	41.0955	-83.6133	No	PEM	0.037	31	2
1-P	41.0953	-83.6138	No	PEM	0.148	30	1

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**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
WETLAND TABLE**

8/23/2022

1-Q	41.0928	-83.6234	Yes	PEM	0.116	17	1
1-R	41.0914	-83.6295	Yes	PEM	0.066	17	1
1-S	41.0872	-83.6481	Yes	PEM	0.033	12	1
1-T	41.0868	-83.6491	Yes	PEM	0.299	13	1
1-U	41.0825	-83.6623	Yes	PEM	0.037	26	1
1-V	41.0829	-83.6618	Yes	PEM	0.067	26	1
1-W	41.0667	-83.6958	Yes	PEM	0.051	23	1
1-X	41.0648	-83.6996	Yes	PEM	0.144	28	1
1-Y	41.0641	-83.7013	Yes	PEM	0.041	32	2
1-Z	41.0576	-83.7096	Yes	PEM	0.167	22	1
1-AA	41.0571	-83.7100	Yes	PEM	0.334	30	1
1-AB	41.0435	-83.7233	Yes	PEM	0.134	38	Mod 2
1-AC	41.0480	-83.7189	Yes	PEM	0.305	34	2
1-AD	40.9757	-83.7857	Yes	PEM	0.046	30	1
1-AE	40.9680	-83.7967	No	PEM	1.173	35	Mod 2
1-AF	40.9679	-83.7972	Yes	PEM	0.107	38	Mod 2
1-AG	40.9163	-83.8731	No	PEM	0.031	24	1
1-AH PEM	40.9057	-83.8935	Yes	PEM	1.323	38	Mod 2

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
WETLAND TABLE**

8/23/2022

1-AH PFO (1)	40.9053	-83.8942	No	PFO	0.025	38	Mod 2
1-AH PFO (2)	40.9060	-83.8940	No	PFO	1.051	38	Mod 2
1-AI	40.9022	-83.9006	No	PEM	0.046	18	1
1-AJ	40.8596	-83.9759	Yes	PEM	0.035	17	1
1-AK	40.8587	-83.9774	Yes	PEM	0.050	17	1
1-AL	40.8341	-84.0155	Yes	PEM	0.076	18	1
1-AM	40.8004	-84.0281	Yes	PEM	0.146	28	1
1-AN	40.8018	-84.0263	Yes	PEM	0.071	32	2
Total:					6.966		

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
STREAM TABLE**

8/23/2022

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation		
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation
1-001	41.15014	-83.43847	Perennial	East Branch Portage River	101	22	18	Chapter 3745-1	N/A	WWH
1-002	41.1376	-83.4709	Intermittent	N/A	102	5	3.5	HHEI	36	Modified Class II PHW
1-003	41.1251	-83.51775	Intermittent	N/A	264	5	3.5	HHEI	48	Modified Class II PHW
1-004	41.1234	-83.5230	Perennial	South Branch Portage River	101	7	5	Chapter 3745-1	N/A	WWH
1-005	41.1178	-83.54029	Intermittent	N/A	101	4	3	HHEI	31	Modified Class II PHW
1-006	41.11274	-83.5562	Perennial	Rocky Ford	179	7	4.5	Chapter 3745-1	N/A	WWH
1-007	41.10721	-83.57478	Perennial	N/A	608	9	7	HHEI	55	Modified Class II PHW
1-008	41.0989	-83.60204	Perennial	N/A	104	8	5.5	QHEI	44	
1-009	41.0966	-83.6096	Perennial	N/A	346	9	7	QHEI	49.5	
1-010	41.0726	-83.68336	Intermittent	N/A	320	5	3.5	HHEI	47	Modified Class II PHW
1-011	41.0641	-83.70132	Intermittent	N/A	119	6	4	HHEI	41	Modified Class II PHW
1-012	41.0572	-83.70988	Perennial	N/A	158	10	8	QHEI	40.5	
1-013	41.0434	-83.7233	Perennial	Aurand Run	158	12	8	Chapter 3745-1	N/A	WWH
1-014	41.0267	-83.73853	Perennial	N/A	137	7	5	QHEI	33	
1-015	41.0478	-83.71912	Perennial	Blanchard River	103	65	50	Chapter 3745-1	N/A	WWH

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
STREAM TABLE**

8/23/2022

1-016	41.0195	-83.74489	Intermittent	N/A	160	5	3	HHEI	42	Modified Class II PHW
1-017	40.9858	-83.77431	Perennial	Tiderishi Creek	137	10	8	Chapter 3745-1	N/A	WWH
1-018	40.9839	-83.77591	Perennial	Tiderishi Creek	492	10	8	Chapter 3745-1	N/A	WWH
1-019	40.9792	-83.78043	Perennial	Burket Ditch	134	6.5	4	Chapter 3745-1	N/A	LRW
1-020	40.9669	-83.79863	Perennial	Ottawa Creek	1271	40	30	Chapter 3745-1	N/A	WWH
1-021	40.9653	-83.80064	Ephemeral	N/A	34	2.5	1.5	HHEI	26	Modified Class II PHW
1-022	40.9541	-83.81696	Intermittent	N/A	111	4	3	HHEI	37	Modified Class II PHW
1-023	40.9499	-83.82311	Perennial	Ottawa Creek	162	40	30	Chapter 3745-1	N/A	WWH
1-024	40.94594	-83.82879	Perennial	W.B. Moyer Ditch	1403	7	5	Chapter 3745-1	N/A	MWH
1-025	40.90615	-83.89481	Perennial	Riley Creek	226	60	40	Chapter 3745-1	N/A	WWH
1-026	40.87827	-83.94457	Perennial	Cranberry Creek	218	7	5	Chapter 3745-1	N/A	MWH
1-027	40.85053	-83.99004	Perennial	N/A	133	6	4.5	HHEI	45	Modified Class II PHW
1-028	40.81726	-84.02284	Perennial	Sugar Creek	295	22	16	Chapter 3745-1	N/A	MWH
1-029	40.80996	-84.02454	Perennial	N/A	103	6.5	4	QHEI	47	
1-D-001	41.11173	-83.55962		N/A	280	3.5	2	N/A	N/A	N/A
Total:					8,061					

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

**AEP Fostoria - East Lima 138kV Transmission Rebuild Project
POND TABLE**

8/23/2022

Pond ID	Location		Delineated Area (acre)
	Latitude	Longitude	
1-P-001	41.09908	-83.60144	0.07
1-P-002	41.08882	-83.64121	0.00
1-P-003	41.08824	-83.64272	0.13
1-P-004	41.08531	-83.65527	0.15
1-P-005	41.02011	-83.74435	0.13
1-P-006	41.04961	-83.71733	0.15
Total:			0.622

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

**APPENDIX G
SITE PHOTOS**



**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-A (North)



Wetland 1-A (East)



Wetland 1-A (South)



Wetland 1-A (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-A (Soil)



Wetland 1-B (North)



Wetland 1-B (East)



Wetland 1-B (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

Allen and Hancock
Counties, OH

Project #:

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Wetland 1-B (West)



Wetland 1-B (Soil)



Wetland 1-C (North)



Wetland 1-C (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



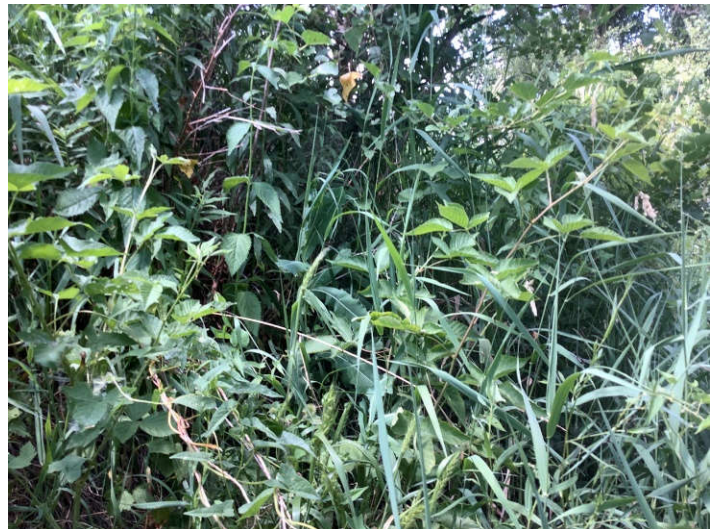
Wetland 1-C (South)



Wetland 1-C (West)



Wetland 1-C (Soil)



Wetland 1-D (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

Allen and Hancock
Counties, OH

Project #:

1882



Wetland 1-D (East)



Wetland 1-D (South)



Wetland 1-D (West)



Wetland 1-D (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-E (North)



Wetland 1-E (East)



Wetland 1-E (South)



Wetland 1-E (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-E (Soil)



Wetland 1-F (North)



Wetland 1-F (East)



Wetland 1-F (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
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Wetland 1-F (West)



Wetland 1-F (Soil)



Wetland 1-G (North)



Wetland 1-G (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-G (South)



Wetland 1-G (West)



Wetland 1-G (Soil)



Wetland 1-H (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-H (East)



Wetland 1-H (South)



Wetland 1-H (West)



Wetland 1-H (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

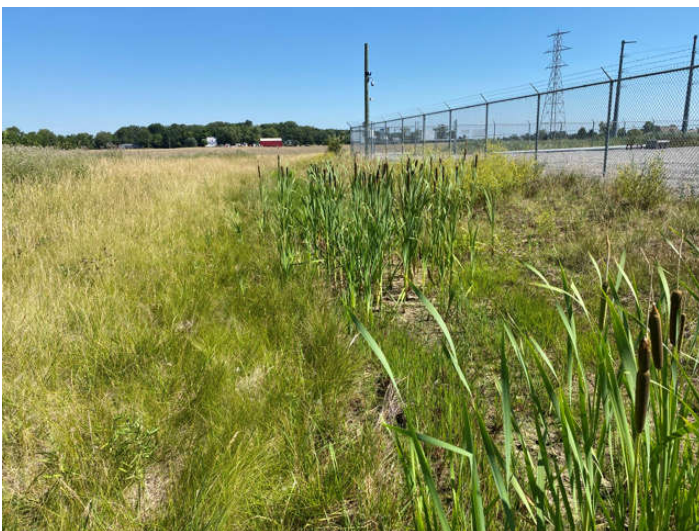
Project #:
1882



Wetland 1-I (North)



Wetland 1-I (East)



Wetland 1-I (South)



Wetland 1-I (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-I (Soil)



Wetland 1-J (North)



Wetland 1-J (East)



Wetland 1-J (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-J (West)



Wetland 1-J (Soil)



Wetland 1-K (North)



Wetland 1-K (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-K (South)



Wetland 1-K (West)



Wetland 1-K (Soil)



Wetland 1-L (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-L (East)



Wetland 1- L (South)



Wetland 1-L (West)



Wetland 1-L (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-M (North)



Wetland 1-M (East)



Wetland 1-M (South)



Wetland 1-M (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-M (Soil)



Wetland 1-N (North)



Wetland 1-N (East)



Wetland 1-N (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-N (West)



Wetland 1-N (Soil)



Wetland 1-O (North)



Wetland 1-O (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-O (South)



Wetland 1-O (West)



Wetland 1-O (Soil)



Wetland 1-P (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Wetland 1-P (East)



Wetland 1-P (South)



Wetland 1-P (West)



Wetland 1-P (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

Allen and Hancock
Counties, OH

Project #:

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Wetland 1-Q (North)



Wetland 1-Q (East)



Wetland 1-Q (South)



Wetland 1-Q (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
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Wetland 1-Q (Soil)



Wetland 1-R (North)



Wetland 1-R (East)



Wetland 1-R (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
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Wetland 1-R (West)



Wetland 1-R (Soil)



Wetland 1-S (North)



Wetland 1-S (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
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Wetland 1-S (South)



Wetland 1-S (West)



Wetland 1-S (Soil)



Wetland 1-T (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
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Wetland 1-T (East)



Wetland 1-T (South)



Wetland 1-T (West)



Wetland 1-T (Soil)

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Photo Documentation**

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AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-U (North)



Wetland 1-U (East)



Wetland 1-U (South)



Wetland 1-U (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
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Wetland 1-U (Soil)



Wetland 1-V (North)



Wetland 1-V (East)



Wetland 1-V (South)

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Photo Documentation**

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Transmission Rebuild Project

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Wetland 1-V (West)



Wetland 1-V (Soil)



Wetland 1-W (North)



Wetland 1-W (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
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Transmission Rebuild Project

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Wetland 1-W (South)



Wetland 1-W (West)



Wetland 1-W (Soil)



Wetland 1-X (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-X (East)



Wetland 1-X (South)



Wetland 1-X (West)



Wetland 1-X (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

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Wetland 1-Y (North)



Wetland 1-Y (East)



Wetland 1-Y (South)



Wetland 1-Y (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-Y (Soil)



Wetland 1-Z (North)



Wetland 1-Z (East)



Wetland 1-Z (South)

**Environmental Solutions & Innovations
Photo Documentation**

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Transmission Rebuild Project

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Counties, OH

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Wetland 1-Z (West)



Wetland 1-Z (Soil)



Wetland 1-AA (North)



Wetland 1-AA (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-AA (South)



Wetland 1-AA (West)



Wetland 1-AA (Soil)



Wetland 1-AB (North)

**Environmental Solutions & Innovations
Photo Documentation**

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AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Counties, OH

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Wetland 1-AB (East)



Wetland 1-AB (South)



Wetland 1-AB (West)



Wetland 1-AB (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

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AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-AC (North)



Wetland 1-AC (East)



Wetland 1-AC (South)



Wetland 1-AC (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-AC (Soil)



Wetland 1-AD (North)



Wetland 1-AD (East)



Wetland 1-AD (South)

**Environmental Solutions & Innovations
Photo Documentation**

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Wetland 1-AD (West)



Wetland 1-AD (Soil)



Wetland 1-AE (North)



Wetland 1-AE (East)

**Environmental Solutions & Innovations
Photo Documentation**

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Transmission Rebuild Project

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Wetland 1-AE (South)



Wetland 1-AE (West)



Wetland 1-AE (Soil)



Wetland 1-AF (North)

**Environmental Solutions & Innovations
Photo Documentation**

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AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-AF (East)



Wetland 1-AF (South)



Wetland 1-AF (West)



Wetland 1-AF (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

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Transmission Rebuild Project

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Wetland 1-AG (North)



Wetland 1-AG (East)



Wetland 1-AG (South)



Wetland 1-AG (West)

**Environmental Solutions & Innovations
Photo Documentation**

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Transmission Rebuild Project

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Wetland 1-AG (Soil)



Wetland 1-AH PFO (North)



Wetland 1-AH PFO (East)



Wetland 1-AH PFO (South)

**Environmental Solutions & Innovations
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Client/Site Name:
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Transmission Rebuild Project

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Wetland 1-AH PFO (West)



Wetland 1-AH PFO (Soil)



Wetland 1-AH PEM (North)



Wetland 1-AH PEM (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
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Wetland 1-AH PEM (South)



Wetland 1-AH PEM (West)



Wetland 1-AH PEM (Soil)



Wetland 1-AI (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-AI (East)



Wetland 1-AI (South)



Wetland 1-AI (West)



Wetland 1-AI (Soil)

**Environmental Solutions & Innovations
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AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Wetland 1-AJ (North)



Wetland 1-AJ (East)



Wetland 1-AJ (South)



Wetland 1-AJ (West)

**Environmental Solutions & Innovations
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AEP Fostoria - East Lima 138kV
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Wetland 1-AJ (Soil)



Wetland 1-AK (North)



Wetland 1-AK (East)



Wetland 1-AK (South)

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Wetland 1-AK (West)



Wetland 1-AK (Soil)



Wetland 1-AL (North)



Wetland 1-AL (East)

**Environmental Solutions & Innovations
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Wetland 1-AL (South)



Wetland 1-AL (West)



Wetland 1-AL (Soil)



Wetland 1-AM (North)

**Environmental Solutions & Innovations
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Wetland 1-AM (East)



Wetland 1-AM (South)



Wetland 1-AM (West)



Wetland 1-AM (Soil)

**Environmental Solutions & Innovations
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Wetland 1-AN (North)



Wetland 1-AN (East)



Wetland 1-AN (South)



Wetland 1-AN (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
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Wetland 1-AN (Soil)



Upland 1-A (North)



Upland 1-A (East)



Upland 1-A (South)

**Environmental Solutions & Innovations
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Upland 1-A (West)



Upland 1-A (Soil)



Upland 1-B (North)



Upland 1-B (East)

**Environmental Solutions & Innovations
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Upland 1-B (South)



Upland 1-B (West)



Upland 1-B (Soil)



Upland 1-C (North)

**Environmental Solutions & Innovations
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Upland 1-C (East)



Upland 1-C (South)



Upland 1-C (West)



Upland 1-C (Soil)

**Environmental Solutions & Innovations
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Upland 1-D (North)



Upland 1-D (East)



Upland 1-D (South)



Upland 1-D (West)

**Environmental Solutions & Innovations
Photo Documentation**

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Upland 1-D (Soil)



Upland 1-E/F (North)



Upland 1-E/F (East)



Upland 1-E/F (South)

**Environmental Solutions & Innovations
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Upland 1-E/F (West)



Upland 1-E/F (Soil)



Upland 1-G/H (North)



Upland 1-G/H (East)

**Environmental Solutions & Innovations
Photo Documentation**

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Upland 1-G/H (South)



Upland 1-G/H (West)



Upland 1-G/H (Soil)



Upland 1-I (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Upland 1-I (East)



Upland 1-I (South)



Upland 1-I (West)



Upland 1-I (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Upland 1-J/K/L (North)



Upland 1-J/K/L (East)



Upland 1-J/K/L (South)



Upland 1-J/K/L (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Upland 1-J/K/L (Soil)



Upland 1-M (North)



Upland 1-M (East)



Upland 1-M (South)

**Environmental Solutions & Innovations
Photo Documentation**

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Upland 1-M (West)



Upland 1-M (Soil)



Upland 1-N/O/P (North)



Upland 1-N/O/P (East)

**Environmental Solutions & Innovations
Photo Documentation**

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Upland 1-N/O/P (South)



Upland 1-N/O/P (West)



Upland 1-N/O/P (Soil)



Upland 1-Q (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
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Upland 1-Q (East)



Upland 1-Q (South)



Upland 1-Q (West)



Upland 1-Q (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

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Upland 1-R (North)



Upland 1-R (East)



Upland 1-R (South)



Upland 1-R (West)

**Environmental Solutions & Innovations
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Upland 1-R (Soil)



Upland 1-S/T (North)



Upland 1-S/T (East)



Upland 1-S/T (South)

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Upland 1-S/T (West)



Upland 1-S/T (Soil)



Upland 1-U/V (North)



Upland 1-U/V (East)

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Upland 1-U/V (South)



Upland 1-U/V (West)



Upland 1-U/V (Soil)



Upland 1-W (North)

**Environmental Solutions & Innovations
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Upland 1-W (East)



Upland 1-W (South)



Upland 1-W (West)



Upland 1-W (Soil)

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Upland 1-X (North)



Upland 1-X (East)



Upland 1-X (South)



Upland 1-X (West)

**Environmental Solutions & Innovations
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Upland 1-X (Soil)



Upland 1-Y (North)



Upland 1-Y (East)



Upland 1-Y (South)

**Environmental Solutions & Innovations
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Upland 1-Y (West)



Upland 1-Y (Soil)



Upland 1-Z (North)



Upland 1-Z (East)

**Environmental Solutions & Innovations
Photo Documentation**

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Upland 1-Z (South)



Upland 1-Z (West)



Upland 1-Z (Soil)



Upland 1-AA (North)

**Environmental Solutions & Innovations
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Upland 1-AA (East)



Upland 1-AA (South)



Upland 1-AA (West)



Upland 1-AA (Soil)

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Upland 1-AB (North)



Upland 1-AB (East)



Upland 1-AB (South)



Upland 1-AB (West)

**Environmental Solutions & Innovations
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Upland 1-AB (Soil)



Upland 1-AC (North)



Upland 1-AC (East)



Upland 1-AC (South)

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Upland 1-AC (West)



Upland 1-AC (Soil)



Upland 1-AD (North)



Upland 1-AD (East)

**Environmental Solutions & Innovations
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Upland 1-AD (South)



Upland 1-AD (West)



Upland 1-AD (Soil)



Upland 1-AE (North)

**Environmental Solutions & Innovations
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Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

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Upland 1-AE (East)



Upland 1-AE (South)



Upland 1-AE (West)



Upland 1-AE (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
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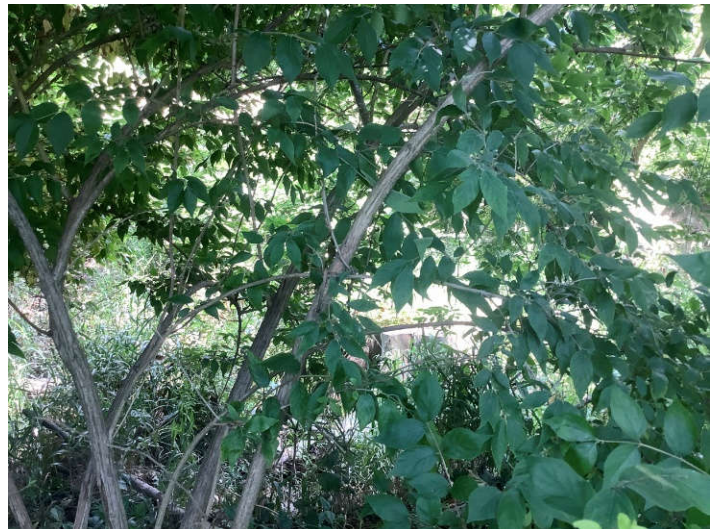
Upland 1-AF (North)



Upland 1-AF (East)



Upland 1-AF (South)



Upland 1-AF (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
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Upland 1-AF (Soil)



Upland 1-AG (North)



Upland 1-AG (East)



Upland 1-AG (South)

**Environmental Solutions & Innovations
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Upland 1-AG (West)



Upland 1-AG (Soil)



Upland 1-AH (North)



Upland 1-AH (East)

**Environmental Solutions & Innovations
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Transmission Rebuild Project

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Upland 1-AH (South)



Upland 1-AH (West)



Upland 1-AH (Soil)



Upland 1-AI (North)

**Environmental Solutions & Innovations
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AEP Fostoria - East Lima 138kV
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Upland 1-AI (East)



Upland 1-AI (South)



Upland 1-AI (West)



Upland 1-AI (Soil)

**Environmental Solutions & Innovations
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Upland 1-AJ (North)



Upland 1-AJ (East)



Upland 1-AJ (South)



Upland 1-AJ (West)

**Environmental Solutions & Innovations
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Client/Site Name:
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Upland 1-AJ (Soil)



Upland 1-AK (North)



Upland 1-AK (East)



Upland 1-AK (South)

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Upland 1-AK (West)



Upland 1-AK (Soil)



Upland 1-AL (North)



Upland 1-AL (East)

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Upland 1-AL (South)



Upland 1-AL (West)



Upland 1-AL (Soil)



Upland 1-AM (North)

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Upland 1-AM (East)



1-AM (South)



1-AM (West)



Upland 1-AM (Soil)

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Upland 1-AN (North)



Upland 1-AN (East)



Upland 1-AN (South)



Upland 1-AN (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-AN (Soil)



Upland 1-SP-001 (North)



Upland 1-SP-001 (East)



Upland 1-SP-001 (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-001 (West)



Upland 1-SP-001 (Soil)



Upland 1-SP-002 (North)



Upland 1-SP-002 (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-002 (South)



Upland 1-SP-002 (West)



Upland 1-SP-002 (Soil)



Upland 1-SP-003 (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-003 (East)



1-SP-003 (South)



1-SP-003 (West)



Upland 1-SP-003 (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-004 (North)



Upland 1-SP-004 (East)



Upland 1-SP-004 (South)



Upland 1-SP-004 (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-004 (Soil)



Upland 1-SP-005 (North)



Upland 1-SP-005 (East)



Upland 1-SP-005 (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-005 (West)



Upland 1-SP-005 (Soil)



Upland 1-SP-006 (North)



Upland 1-SP-006 (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-006 (South)



Upland 1-SP-006 (West)



Upland 1-SP-006 (Soil)



Upland 1-SP-007 (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-007 (East)



1-SP-007 (South)



1-SP-007 (West)



Upland 1-SP-007 (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-008 (North)



Upland 1-SP-008 (East)



Upland 1-SP-008 (South)



Upland 1-SP-008 (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

Allen and Hancock
Counties, OH

Project #:

1882



Upland 1-SP-008 (Soil)



Upland 1-SP-009 (North)



Upland 1-SP-009 (East)



Upland 1-SP-009 (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-009 (West)



Upland 1-SP-009 (Soil)



Upland 1-SP-010 (North)



Upland 1-SP-010 (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-010 (South)



Upland 1-SP-010 (West)



Upland 1-SP-010 (Soil)



Upland 1-SP-011 (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-011 (East)



1-SP-011 (South)



1-SP-011 (West)



Upland 1-SP-011 (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

Allen and Hancock
Counties, OH

Project #:

1882



Upland 1-SP-012 (North)



Upland 1-SP-012 (East)



Upland 1-SP-012 (South)



Upland 1-SP-012 (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-012 (Soil)



Upland 1-SP-013 (North)



Upland 1-SP-013 (East)



Upland 1-SP-013 (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



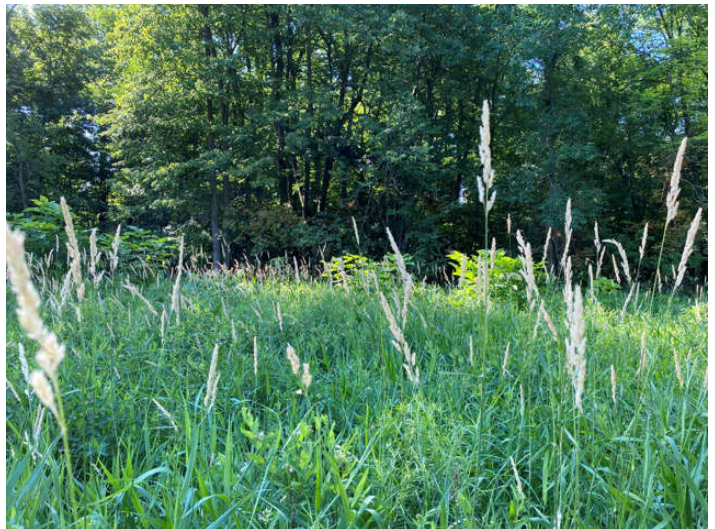
Upland 1-SP-013 (West)



Upland 1-SP-013 (Soil)



Upland 1-SP-014 (North)



Upland 1-SP-014 (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-014 (South)



Upland 1-SP-014 (West)



Upland 1-SP-014 (Soil)



Upland 1-SP-015 (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-015 (East)



1-SP-015 (South)



1-SP-015 (West)



Upland 1-SP-015 (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-016 (North)



Upland 1-SP-016 (East)



Upland 1-SP-016 (South)



Upland 1-SP-016 (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-016 (Soil)



Upland 1-SP-017 (North)



Upland 1-SP-017 (East)



Upland 1-SP-017 (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-017 (West)



Upland 1-SP-017 (Soil)



Upland 1-SP-018 (North)



Upland 1-SP-018 (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-018 (South)



Upland 1-SP-018 (West)



Upland 1-SP-018 (Soil)



Upland 1-SP-019 (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-019 (East)



1-SP-019 (South)



1-SP-019 (West)



Upland 1-SP-019 (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-020 (North)



Upland 1-SP-020 (East)



Upland 1-SP-020 (South)



Upland 1-SP-020 (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-020 (Soil)



Upland 1-SP-021 (North)



Upland 1-SP-021 (East)



Upland 1-SP-021 (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-021 (West)



Upland 1-SP-021 (Soil)



Upland 1-SP-022 (North)



Upland 1-SP-022 (East)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

Allen and Hancock
Counties, OH

Project #:

1882



Upland 1-SP-022 (South)



Upland 1-SP-022 (West)



Upland 1-SP-022 (Soil)



Upland 1-SP-023 (North)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Upland 1-SP-023 (East)



1-SP-023 (South)



1-SP-023 (West)



Upland 1-SP-023 (Soil)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

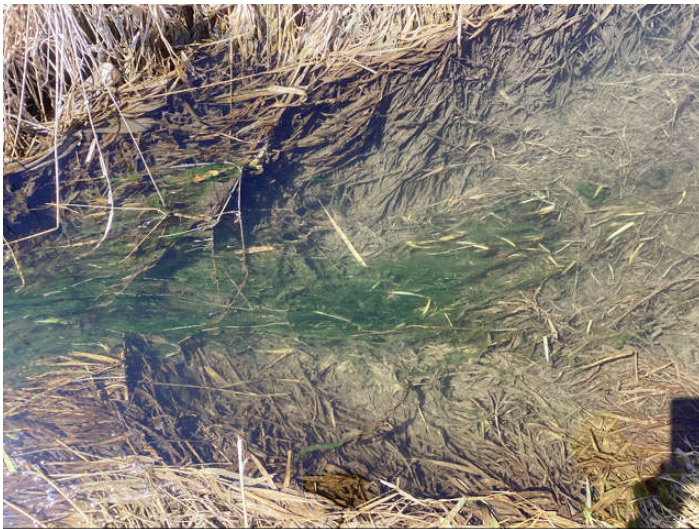
Project #:
1882



Stream 1-001 (Upstream)



Stream 1-001 (Downstream)



Stream 1-001 (Substrate)



Stream 1-002 (Upstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-002 (Downstream)



Stream 1-002 (Substrate)



Stream 1-003 (Upstream)



Stream 1-003 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-003 (Substrate)



Stream 1-004 (Upstream)



Stream 1-004 (Downstream)



Stream 1-004 (Substrate)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-005 (Upstream)



Stream 1-005 (Downstream)



Stream 1-005 (Substrate)



Stream 1-006 (Upstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-006 (Downstream)



Stream 1-006 (Substrate)



Stream 1-007 (Upstream)



Stream 1-007 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

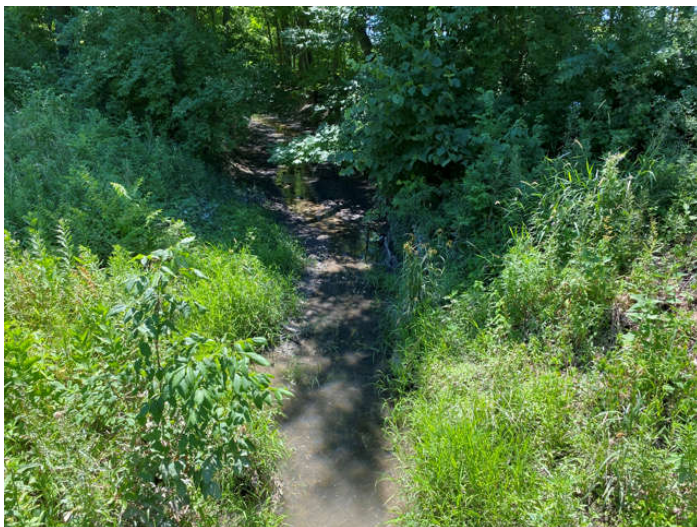
Project #:
1882



Stream 1-007 (Substrate)



Stream 1-008 (Upstream)



Stream 1-008 (Downstream)



Stream 1-008 (Substrate)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-009 (Upstream)



Stream 1-009 (Downstream)



Stream 1-009 (Substrate)



Stream 1-010 (Upstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-010 (Downstream)



Stream 1-010 (Substrate)



Stream 1-011 (Upstream)



Stream 1-011 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-011 (Substrate)



Stream 1-012 (Upstream)



Stream 1-012 (Downstream)



Stream 1-012 (Substrate)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-013 (Upstream)



Stream 1-013 (Downstream)



Stream 1-013 (Substrate)



Stream 1-014 (Upstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

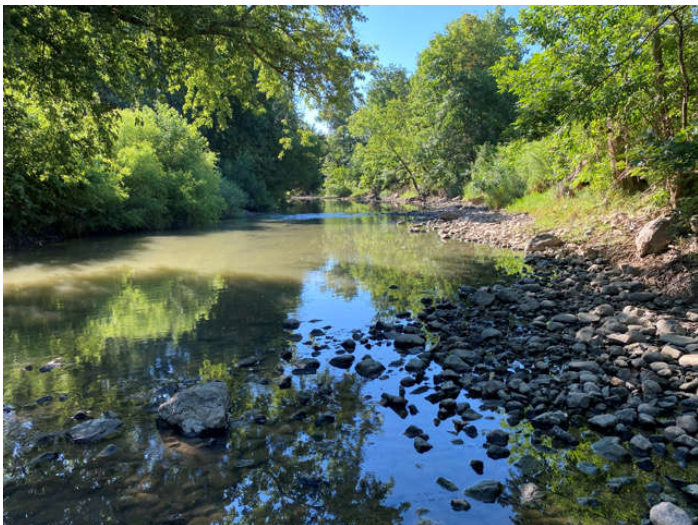
Project #:
1882



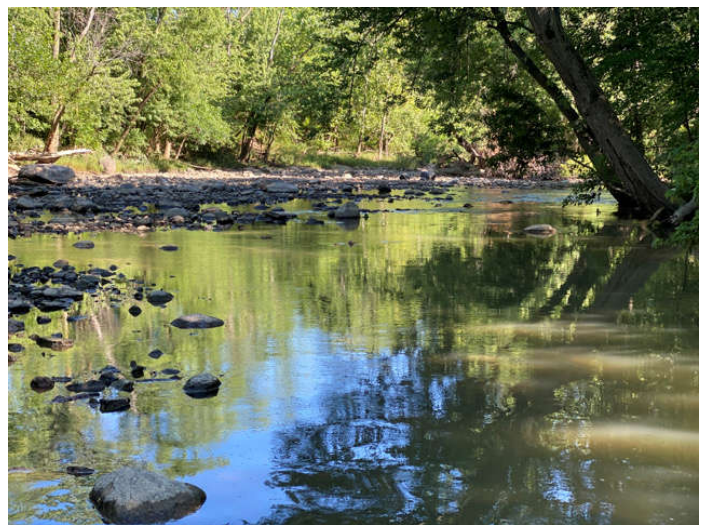
Stream 1-014 (Downstream)



Stream 1-014 (Substrate)



Stream 1-015 (Upstream)



Stream 1-015 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-015 (Substrate)



Stream 1-016 (Upstream)



Stream 1-016 (Downstream)



Stream 1-016 (Substrate)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-017 (Upstream)



Stream 1-017 (Downstream)



Stream 1-017 (Substrate)



Stream 1-018 (Upstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-018 (Downstream)



Stream 1-018 (Substrate)



Stream 1-019 (Upstream)



Stream 1-019 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-019 (Substrate)



Stream 1-020 (Upstream)



Stream 1-020 (Downstream)



Stream 1-020 (Substrate)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:

Allen and Hancock
Counties, OH

Project #:

1882



Stream 1-021 (Upstream)



Stream 1-021 (Downstream)



Stream 1-021 (Substrate)



Stream 1-022 (Upstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-022 (Downstream)



Stream 1-022 (Substrate)



Stream 1-023 (Upstream)



Stream 1-023 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-023 (Substrate)



Stream 1-024 (Upstream)



Stream 1-024 (Downstream)



Stream 1-024 (Substrate)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-025 (Upstream)



Stream 1-025 (Downstream)



Stream 1-025 (Substrate)



Stream 1-026 (Upstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-026 (Downstream)



Stream 1-026 (Substrate)



Stream 1-027 (Upstream)



Stream 1-027 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Stream 1-027 (Substrate)



Stream 1-028 (Upstream)



Stream 1-028 (Downstream)



Stream 1-028 (Substrate)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



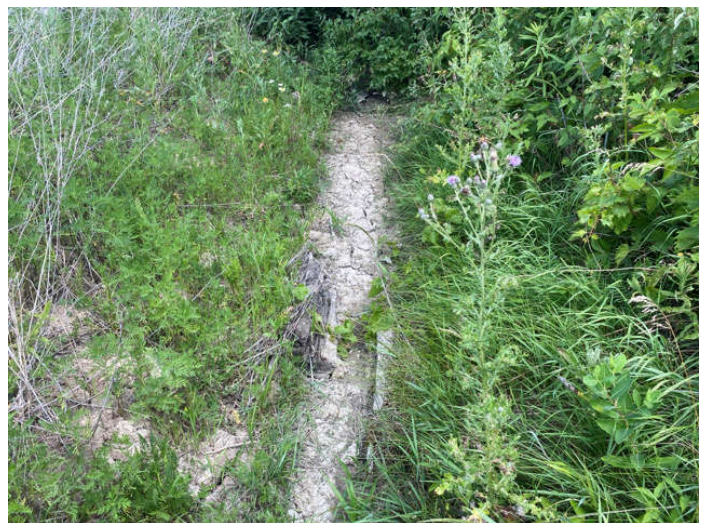
Stream 1-029 (Upstream)



Stream 1-029 (Downstream)



Stream 1-029 (Substrate)



Ditch 1-D-001

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Ditch 1-D-001



Pond 1-P-001



Pond 1-P-001



Pond 1-P-002

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Pond 1-P-002



Pond 1-P-003



Pond 1-P-003



Pond 1-P-004

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:
AEP Fostoria - East Lima 138kV
Transmission Rebuild Project

Site Location:
Allen and Hancock
Counties, OH

Project #:
1882



Pond 1-P-004



Pond 1-P-005

**APPENDIX H
WETLAND AND STREAM DATASHEETS**



WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Fostoria/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-A
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R12E SN10
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.137569 Long: -83.470898 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM Score of 21.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Urtica dioica</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = 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 (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 0 x 1 = 0
 FACW species 100 x 2 = 200
 FAC species 0 x 3 = 0
 FACU species 0 x 4 = 0
 UPL species 0 x 5 = 0
 Column Totals: 100 (A) 200 (B)
 Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Fostoria/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-A UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R12E SN10
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.137492 Long: -83.471096 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-A.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Thlaspi arvense</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. <u>Asclepias syriaca</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Cirsium arvense</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. <u>Trifolium repens</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>40%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 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 0 x 3 = 0
 FACU species 40 x 4 = 160
 UPL species 0 x 5 = 0
 Column Totals: 40 (A) 160 (B)
 Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

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

SOIL

Sampling Point: 1-A UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 3/2	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AD
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN11
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.97569 Long: -83.785701 Datum: WGS 84
 Soil Map Unit Name: Big1B1 NWI classification: PUBGx

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 30.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>210</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.91</u>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>210</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>10</u>	x 1 = <u>10</u>																	
FACW species <u>100</u>	x 2 = <u>200</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>210</u> (B)																	
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

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

Hydrophytic vegetation present.

SOIL

Sampling Point: 1-AD

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/2	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16)</p> <p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if observed):</p> <p>Type: _____</p> <p>Depth (Inches): _____</p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Remarks:

Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:		
<p>Primary Indicators (minimum of one is required; check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input checked="" type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>	<p>Secondary Indicators (minimum of two required)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input checked="" type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u></p> <p>(includes capillary fringe)</p>		<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>		
<p>Remarks:</p> <p>Wetland hydrology present.</p>		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AD UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN11
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.975503 Long: -83.785633 Datum: WGS 84
 Soil Map Unit Name: Big1B1 NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-AD. Mowed. Soil compacted.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	_____	_____	_____	FACU species <u>95</u> x 4 = <u>380</u>
_____ = Total Cover				UPL species <u>5</u> x 5 = <u>25</u>
				Column Totals: <u>100</u> (A) <u>405</u> (B)
				Prevalence Index = B/A = <u>4.05</u>
Herb Stratum (Plot size: <u>5 ft r</u>)				Hydrophytic Vegetation Indicators:
1. <u>Festuca rubra</u>	<u>55</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Glechoma hederacea</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Solidago canadensis</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Daucus carota</u>	<u>5</u>	<input type="checkbox"/>	<u>UPL</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

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

SOIL

Sampling Point: 1-AD UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 7/3	90	10YR 5/1	10	D	M	Silty Clay	Highly compacted.
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AE UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN11
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.967317 Long: -83.797858 Datum: WGS 84
 Soil Map Unit Name: MCA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-AE.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>260</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.60</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>260</u> (B)	Prevalence Index = B/A = <u>2.60</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>30</u>	x 4 = <u>120</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>260</u> (B)																			
Prevalence Index = B/A = <u>2.60</u>																				
_____ = Total Cover				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)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																				

SOIL

Sampling Point: 1-AF

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/2	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16)</p> <p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if observed):</p> <p>Type: _____</p> <p>Depth (Inches): _____</p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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Remarks:

Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:		
<p>Primary Indicators (minimum of one is required: check all that apply)</p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p>	<p>Secondary Indicators (minimum of two required)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p> <p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input checked="" type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input checked="" type="checkbox"/> Geomorphic Position (D2)</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____</p> <p>Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)</p>		<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>		
<p>Remarks:</p> <p>Wetland hydrology present.</p>		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AF UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN11
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 40.96794 Long: -83.797325 Datum: WGS 84
 Soil Map Unit Name: MCA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-AF.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Celtis occidentalis</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.3</u> (A/B)														
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Platanus occidentalis</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
4. _____																		
5. _____																		
<u>30%</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>60</u></td> <td>x 3 = <u>180</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>340</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.09</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>60</u>	x 3 = <u>180</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>340</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>20</u>	x 2 = <u>40</u>																	
FAC species <u>60</u>	x 3 = <u>180</u>																	
FACU species <u>30</u>	x 4 = <u>120</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>340</u> (B)																	
<u>20%</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Lonicera japonica</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
<u>20%</u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Geum canadense</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. <u>Toxicodendron radicans</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. <u>Viola canadensis</u>	<u>10</u>		<u>FACU</u>															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
<u>60%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____																		
2. _____																		
_____ = Total Cover																		

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

SOIL

Sampling Point: 1-AF UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 4/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Root</u> Depth (Inches): <u>10</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Hancock Sampling Date: 2022-07-03
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AG
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN31
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.916296 Long: -83.872988 Datum: WGS 84
 Soil Map Unit Name: Big1A1 NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 24.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>45</u></td> <td>x 1 = <u>45</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>185</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.85</u>	Total % Cover of:	Multiply by:	OBL species <u>45</u>	x 1 = <u>45</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>185</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>45</u>	x 1 = <u>45</u>																	
FACW species <u>25</u>	x 2 = <u>50</u>																	
FAC species <u>30</u>	x 3 = <u>90</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>185</u> (B)																	
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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.														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Hancock Sampling Date: 2022-07-03
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AG UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN31
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.916209 Long: -83.872928 Datum: WGS 84
 Soil Map Unit Name: Blg1A1 NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-AG.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Echinochloa crus-galli</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Phalaris arundinacea</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Trifolium pratense</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. <u>Carex vulpinoidea</u>	<u>15</u>		<u>FACW</u>	
5. <u>Rumex crispus</u>	<u>10</u>		<u>FAC</u>	
6. <u>Scirpus atrovirens</u>	<u>5</u>		<u>OBL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
 Total Number of Dominant Species Across All Strata: 3 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>20</u>	x 4 = <u>80</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>245</u> (B)
Prevalence Index = B/A = <u>2.45</u>	

Hydrophytic Vegetation Indicators:
 ___ 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 ___ 3 - Prevalence Index is ≤3.0¹
 ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point: 1-AG UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 6/3	90	10YR 5/6	10	C	M	Silty Clay	Highly compacted
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Root</u> Depth (Inches): <u>10</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

SOIL

Sampling Point: 1-AH PEM

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/2	85	10YR 5/6	15	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-03
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AH PFO 1
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN1
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.905319 Long: -83.894161 Datum: WGS 84
 Soil Map Unit Name: MbA NWI classification: PUBG/PUBGx/R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PFO. ORAM score of 38.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Aesculus glabra</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>35%</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>185</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.47</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>75</u> (A)	<u>185</u> (B)	Prevalence Index = B/A = <u>2.47</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>35</u>	x 3 = <u>105</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>75</u> (A)	<u>185</u> (B)																			
Prevalence Index = B/A = <u>2.47</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Verbesina alternifolia</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Carex grayi</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
<u>40%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				

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

Hydrophytic vegetation present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-03
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AH PFO 2
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R8E SN36
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.90608 Long: -83.893936 Datum: WGS 84
 Soil Map Unit Name: MbA NWI classification: PUBG/PUBGx/R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PFO. ORAM score of 38.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Acer negundo</u>	15	<input checked="" type="checkbox"/>	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. <u>Aesculus glabra</u>	15	<input checked="" type="checkbox"/>	FAC															
3. <u>Quercus velutina</u>	10																	
4. <u>Ulmus americana</u>	10		FACW															
5. <u>Prunus serotina</u>	5		FACU															
<u>55%</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>60</u></td> <td>x 3 = <u>180</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>155</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.58</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>60</u>	x 3 = <u>180</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>155</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>80</u>	x 2 = <u>160</u>																	
FAC species <u>60</u>	x 3 = <u>180</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>155</u> (A)	<u>400</u> (B)																	
<u>25%</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Acer negundo</u>	10	<input checked="" type="checkbox"/>	FAC															
2. <u>Ulmus americana</u>	10	<input checked="" type="checkbox"/>	FACW															
3. <u>Aesculus glabra</u>	5	<input checked="" type="checkbox"/>	FAC															
4. _____																		
5. _____																		
<u>25%</u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Lysimachia nummularia</u>	25	<input checked="" type="checkbox"/>	FACW															
2. <u>Phalaris arundinacea</u>	15	<input checked="" type="checkbox"/>	FACW															
3. <u>Bidens frondosa</u>	10		FACW															
4. <u>Parthenocissus quinquefolia</u>	10		FACU															
5. <u>Pilea pumila</u>	10		FACW															
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
<u>70%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. <u>Toxicodendron radicans</u>	15	<input checked="" type="checkbox"/>	FAC															
2. _____																		
<u>15%</u> = Total Cover																		

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

SOIL

Sampling Point: 1-AH PFO 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/2	95	10YR 5/6	5	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-03
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AH UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R8E SN36
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 1 Lat: 40.906317 Long: -83.892483 Datum: WGS 84
 Soil Map Unit Name: Gwg5B2 NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-AH.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>310</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.26</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u> (A)	<u>310</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>60</u>	x 4 = <u>240</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>95</u> (A)	<u>310</u> (B)																	
_____ = Total Cover				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)														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														

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

SOIL

Sampling Point: 1-AH UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 5/2	100					Silty Clay	Highly compacted.
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Gravel</u> Depth (Inches): <u>10</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AI UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN2
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 1 Lat: 40.90215 Long: -83.900527 Datum: WGS 84
 Soil Map Unit Name: Big1B1 NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input type="checkbox"/>
Remarks: Upland point for Wetland 1-AI. Mown grass. Highly compacted soil.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
Herb Stratum (Plot size: <u>5 ft r</u>)				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.														
1. <u>Festuca rubra</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Plantago lanceolata</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>100%</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		

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

SOIL

Sampling Point: 1-AI UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10YR 4/3	100					Silty Clay	Highly compacted.
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Compacted</u> Depth (Inches): <u>4</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AJ
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN20
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.859632 Long: -83.975946 Datum: WGS 84
 Soil Map Unit Name: SrA NWI classification: R4SBC

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 17.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>200</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>200</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>100</u>	x 2 = <u>200</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>200</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
<u>100%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Convolvulus arvensis</u>	<u>10</u>	<input checked="" type="checkbox"/>	_____																	
2. _____	_____	_____	_____																	
<u>10%</u> = Total Cover																				

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AJ UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN20
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.85957 Long: -83.975992 Datum: WGS 84
 Soil Map Unit Name: SrA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input type="checkbox"/>
Remarks: Upland point for Wetland 1-AJ.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>360</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>360</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
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Column Totals: <u>90</u> (A)	<u>360</u> (B)																	
_____ = Total Cover				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.														
_____ = Total Cover																		
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_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AK
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN19
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.85878 Long: -83.977388 Datum: WGS 84
 Soil Map Unit Name: SrA NWI classification: R4SBC

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 17.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>200</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>200</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>100</u>	x 2 = <u>200</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>200</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
_____ = Total Cover																				
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_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
_____ = Total Cover																				

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

SOIL

Sampling Point: 1-AK

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/2	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	--

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

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present.		

SOIL

Sampling Point: 1-AK UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 6/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	---

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

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Lima/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R7E SN26
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.834152 Long: -84.01554 Datum: WGS 84
 Soil Map Unit Name: SrA NWI classification: R4SBC

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 18.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
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FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>200</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																				

SOIL

Sampling Point: 1-AL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/2	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
---	--

Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Wetland hydrology present.	

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Lima/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AL UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R7E SN26
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.8341 Long: -84.015537 Datum: WGS 84
 Soil Map Unit Name: SrA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-AL.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>370</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.70</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>370</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>30</u>	x 3 = <u>90</u>																	
FACU species <u>70</u>	x 4 = <u>280</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>370</u> (B)																	
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Festuca rubra</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Toxicodendron radicans</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. <u>Plantago lanceolata</u>	<u>10</u>		<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. <u>Convolvulus arvensis</u>	<u>10</u>	<input checked="" type="checkbox"/>	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		

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

SOIL

Sampling Point: 1-AL UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Lima/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AM
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T3S R7E SN11
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 40.800362 Long: -84.027713 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 28.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>100</u></td> <td>x 1 = <u>100</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>120</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.09</u>	Total % Cover of:	Multiply by:	OBL species <u>100</u>	x 1 = <u>100</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>120</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>100</u>	x 1 = <u>100</u>																	
FACW species <u>10</u>	x 2 = <u>20</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>120</u> (B)																	
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
_____ = Total Cover																		

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

SOIL

Sampling Point: 1-AM UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10YR 3/3	100					Silty Clay	Gravel inclusions
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Gravel</u> Depth (Inches): <u>4</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Lima/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AN UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T3S R7E SN11
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.801561 Long: -84.026411 Datum: WGS 84
 Soil Map Unit Name: Ble1B1 NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-AN.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
= Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
= Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Dipsacus fullonum</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	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.														
2. <u>Solidago canadensis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>100%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
2. _____	_____	_____	_____															
= Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

SOIL

Sampling Point: 1-AN UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 6/3	97	10YR 5/6	3	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

SOIL

Sampling Point: 1-B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/2	95	10YR 6/8	5	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required: check all that apply) <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Arcadia/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-B UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R12E SN18
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.125174 Long: -83.517573 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-B. Located on edge of agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>NaN</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	_____	_____	_____	FACU species <u>5</u> x 4 = <u>20</u>
_____ = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
				Column Totals: <u>5</u> (A) <u>20</u> (B)
				Prevalence Index = B/A = <u>4.00</u>
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Glycine max</u>	<u>25</u>	<input checked="" type="checkbox"/>	_____	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Zea mays</u>	<u>25</u>	<input checked="" type="checkbox"/>	_____	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Phleum pratense</u>	<u>5</u>	_____	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>55%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation absent. 45% bare ground due to farming.

SOIL

Sampling Point: 1-B UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 3/3	100					Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Arcadia/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-C
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN24
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.117853 Long: -83.540313 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM Score of 21.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>220</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.20</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>220</u> (B)	Prevalence Index = B/A = <u>2.20</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>90</u>	x 2 = <u>180</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>220</u> (B)																			
Prevalence Index = B/A = <u>2.20</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
_____ = Total Cover																				

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Arcadia/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-C UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN24
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.117862 Long: -83.540266 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland Point for Wetland 1-C.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
= Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>380</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.80</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>380</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>10</u>	x 2 = <u>20</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>380</u> (B)																	
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover				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.														
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover																		
= Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														

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

Hydrophytic vegetation present.

SOIL

Sampling Point: 1-C UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 3/2	95	10YR 5/6	5	C	M		
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Arcadia/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-D
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN23
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.112758 Long: -83.556261 Datum: WGS 84
 Soil Map Unit Name: SoA NWI classification: R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PSS. Vegetation, soil, and hydrology were disturbed via removal of vegetation and addition of fill and culverts to create a berm. ORAM score of 32.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix nigra</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
35% = Total Cover				
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Acer negundo</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Salix nigra</u>	<u>10</u>	_____	<u>OBL</u>	
4. <u>Toxicodendron radicans</u>	<u>10</u>	_____	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
100% = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Convolvulus arvensis</u>	<u>10</u>	<input checked="" type="checkbox"/>	_____	
2. _____	_____	_____	_____	
10% = 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 (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 45 x 1 = 45
 FACW species 60 x 2 = 120
 FAC species 30 x 3 = 90
 FACU species 0 x 4 = 0
 UPL species 0 x 5 = 0
 Column Totals: 135 (A) 255 (B)
 Prevalence Index = B/A = 1.89

Hydrophytic Vegetation Indicators:
 ___ 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Arcadia/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-D UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN23
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.112835 Long: -83.5563 Datum: WGS 84
 Soil Map Unit Name: SoA NWI classification: R2UBH

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-D. Located on edge of agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>NaN</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>40</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>10</u> (A)	<u>40</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>10</u>	x 4 = <u>40</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>10</u> (A)	<u>40</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Glycine max</u>	<u>25</u>	<input checked="" type="checkbox"/>	_____															
2. <u>Phleum pratense</u>	<u>5</u>	_____	<u>FACU</u>															
3. <u>Trifolium repens</u>	<u>5</u>	_____	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>35%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		

Hydrophytic Vegetation Indicators:
 ___ 1 - Rapid Test for Hydrophytic Vegetation
 ___ 2 - Dominance Test is >50%
 ___ 3 - Prevalence Index is ≤3.0¹
 ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation absent. 65% bare ground due to farming.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-E
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN27
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.104747 Long: -83.580473 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. Escaping ditch line. ORAM score of 13.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>100</u></td> <td>x 1 = <u>100</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>100</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>100</u>	x 1 = <u>100</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>100</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>100</u>	x 1 = <u>100</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>100</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-E/F UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN27
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.104745 Long: -83.580473 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-E and Wetland 1-F.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	_____	_____	_____	FAC species <u>10</u> x 3 = <u>30</u>
5. _____	_____	_____	_____	FACU species <u>80</u> x 4 = <u>320</u>
_____ = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
				Column Totals: <u>90</u> (A) <u>350</u> (B)
				Prevalence Index = B/A = <u>3.89</u>
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Festuca rubra</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Solidago canadensis</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Digitaria bicornis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Rumex crispus</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>90%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.				

SOIL

Sampling Point: 1-F

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/1	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	--

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

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
---	--

Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-G/H UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN27
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.104081 Long: -83.580339 Datum: WGS 84
 Soil Map Unit Name: BpA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-G and Wetland 1-H.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>360</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>360</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>90</u> (A)	<u>360</u> (B)																	
_____ = Total Cover				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.														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-H
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN27
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.103935 Long: -83.58047 Datum: WGS 84
 Soil Map Unit Name: BpA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. Located next to substation grounding system. ORAM score of 12.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>100</u> x 1 = <u>100</u>
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
_____ = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
				Column Totals: <u>100</u> (A) <u>100</u> (B)
				Prevalence Index = B/A = <u>1.00</u>
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Typha angustifolia</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-I
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN27
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.104087 Long: -83.581876 Datum: WGS 84
 Soil Map Unit Name: BrA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. Located next to substation grounding system. ORAM score of 14.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>100</u> x 1 = <u>100</u>
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
_____ = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
				Column Totals: <u>100</u> (A) <u>100</u> (B)
				Prevalence Index = B/A = <u>1.00</u>
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Schoenoplectus tabernaemontani</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Typha angustifolia</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-J/K/L UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN28
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 41.098971 Long: -83.601403 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-J, Wetland 1-K, and Wetland 1-L.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1. _____	_____	_____	_____	Prevalence Index worksheet:
2. _____	_____	_____	_____	Total % Cover of: Multiply by:
3. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
4. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
5. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
_____ = Total Cover				FACU species <u>100</u> x 4 = <u>400</u>
UPL species <u>0</u> x 5 = <u>0</u>				
				Column Totals: <u>100</u> (A) <u>400</u> (B)
				Prevalence Index = B/A = <u>4.00</u>
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Festuca rubra</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Indicators:
2. <u>Trifolium repens</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	___ 1 - Rapid Test for Hydrophytic Vegetation
3. <u>Plantago lanceolata</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	___ 2 - Dominance Test is >50%
4. _____	_____	_____	_____	___ 3 - Prevalence Index is ≤3.0 ¹
5. _____	_____	_____	_____	___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-L
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN28
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 41.098919 Long: -83.601686 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 32.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>70</u></td> <td>x 1 = <u>70</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>150</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.36</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>70</u>	x 1 = <u>70</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>150</u> (B)	Prevalence Index = B/A = <u>1.36</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>70</u>	x 1 = <u>70</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>150</u> (B)																			
Prevalence Index = B/A = <u>1.36</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. <u>Carex lurida</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
2. <u>Carex vulpinoidea</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Scirpus atrovirens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
4. <u>Scirpus cyperinus</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
5. <u>Carex frankii</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>																	
6. <u>Lysimachia nummularia</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>100%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Vitis riparia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
<u>10%</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-M
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN28
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 41.098837 Long: -83.602148 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 29.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>210</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.91</u>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>210</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30</u>	x 1 = <u>30</u>																	
FACW species <u>60</u>	x 2 = <u>120</u>																	
FAC species <u>20</u>	x 3 = <u>60</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>210</u> (B)																	
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
_____ = Total Cover																		

Herb Stratum (Plot size: 5 ft r)

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Lysimachia nummularia</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Footnote: ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Scirpus atrovirens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
3. <u>Carex vulpinoidea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Populus deltoides</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>	
5. <u>Rumex crispus</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>	
6. <u>Scirpus cyperinus</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				

Woody Vine Stratum (Plot size: 30 ft r)

1. <u>Vitis riparia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2. _____	_____	_____	_____
_____ = Total Cover			

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-N
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN29
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 41.095686 Long: -83.612714 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 31.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>140</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.75</u>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>80</u> (A)	<u>140</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>20</u>	x 1 = <u>20</u>																	
FACW species <u>60</u>	x 2 = <u>120</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>80</u> (A)	<u>140</u> (B)																	
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-N/O/P UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN29
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 1 Lat: 41.095401 Long: -83.613297 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland sample point for Wetland 1-N, Wetland 1-O, and Wetland 1-P.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u>
2. _____	_____	_____	_____	FACW species <u>70</u> x 2 = <u>140</u>
3. _____	_____	_____	_____	FAC species <u>20</u> x 3 = <u>60</u>
4. _____	_____	_____	_____	FACU species <u>10</u> x 4 = <u>40</u>
5. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
_____ = Total Cover				Column Totals: <u>100</u> (A) <u>240</u> (B)
Herb Stratum (Plot size: <u>5 ft r</u>)				Prevalence Index = B/A = <u>2.40</u>
1. <u>Phalaris arundinacea</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 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.
2. <u>Apocynum cannabinum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Solidago canadensis</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.				

SOIL

Sampling Point: 1-N/O/P UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 4/1	100					Silty Clay	
6 - 9	10YR 4/1	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Gravel</u> Depth (Inches): <u>9</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-O
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN29
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 41.095571 Long: -83.613271 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 31.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>170</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.70</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>170</u> (B)	Prevalence Index = B/A = <u>1.70</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>170</u> (B)																			
Prevalence Index = B/A = <u>1.70</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-P
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN29
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 41.095338 Long: -83.613719 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 30.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>190</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.73</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>190</u> (B)	Prevalence Index = B/A = <u>1.73</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>80</u>	x 2 = <u>160</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>190</u> (B)																			
Prevalence Index = B/A = <u>1.73</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-Q UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH-1 T2N R11E SN32
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.092854 Long: -83.622767 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-Q. Located on edge of agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
Herb Stratum (Plot size: <u>5 ft r</u>)				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.														
1. <u>Digitaria bicornis</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Festuca rubra</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. <u>Asclepias syriaca</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>100%</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-R
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN32
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.091286 Long: -83.629611 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 17.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>80</u></td> <td>x 1 = <u>80</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>120</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.20</u>	Total % Cover of:	Multiply by:	OBL species <u>80</u>	x 1 = <u>80</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>120</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>80</u>	x 1 = <u>80</u>																	
FACW species <u>20</u>	x 2 = <u>40</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>120</u> (B)																	
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

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

Hydrophytic vegetation present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-R UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN32
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.0914 Long: -83.629186 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-R. Located on edge of agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Prevalence Index worksheet:				
Total % Cover of: _____ Multiply by: _____				
OBL species <u>0</u> x 1 = <u>0</u>				
FACW species <u>0</u> x 2 = <u>0</u>				
FAC species <u>0</u> x 3 = <u>0</u>				
FACU species <u>100</u> x 4 = <u>400</u>				
UPL species <u>0</u> x 5 = <u>0</u>				
Column Totals: <u>100</u> (A) <u>400</u> (B)				
Prevalence Index = B/A = <u>4.00</u>				
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				
Hydrophytic vegetation absent.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-S
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN31
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 41.087166 Long: -83.6482 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 12. Disturbed by adjacent land use.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____ OBL species <u>80</u> x 1 = <u>80</u>
2. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
3. _____	_____	_____	_____	FAC species <u>20</u> x 3 = <u>60</u>
4. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
5. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
_____ = Total Cover				Column Totals: <u>100</u> (A) <u>140</u> (B)
Herb Stratum (Plot size: <u>5 ft r</u>)				Prevalence Index = B/A = <u>1.40</u>
1. <u>Typha angustifolia</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)
2. <u>Apocynum cannabinum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-S/T UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN31
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.087043 Long: -83.648641 Datum: WGS 84
 Soil Map Unit Name: SkB NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-S and Wetland 1-T. Disturbed by adjacent land use.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)																
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. _____	_____	_____	_____	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>380</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.80</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>380</u> (B)	Prevalence Index = B/A = <u>3.80</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>380</u> (B)																			
Prevalence Index = B/A = <u>3.80</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Cirsium arvense</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	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.																
2. <u>Festuca rubra</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. <u>Apocynum cannabinum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
4. <u>Dipsacus fullonum</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
<u>100%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																				

SOIL

Sampling Point: 1-SP-003

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

SOIL

Sampling Point: 1-SP-004

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 6/3	90	10YR 5/1	10	D	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-005
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN27
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.106101 Long: -83.578203 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Riparian corridor of stream.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>350</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.89</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>350</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>80</u>	x 4 = <u>320</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>90</u> (A)	<u>350</u> (B)																	
_____ = Total Cover				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.														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

SOIL

Sampling Point: 1-SP-005

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/3	97	10YR 6/3	3	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	---

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

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-008
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN1
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.985614 Long: -83.774341 Datum: WGS 84
 Soil Map Unit Name: MCA NWI classification: R2UBH

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Mown yard bordering riparian corridor of stream.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>410</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.73</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>410</u> (B)	Prevalence Index = B/A = <u>3.73</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>90</u>	x 4 = <u>360</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>110</u> (A)	<u>410</u> (B)																			
Prevalence Index = B/A = <u>3.73</u>																				
_____ = Total Cover				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.																
_____ = Total Cover																				
_____ = Total Cover																				
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_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																				

SOIL

Sampling Point: 1-SP-008

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/3	100					Silty Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-009
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN1
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 40.984367 Long: -83.775359 Datum: WGS 84
 Soil Map Unit Name: MCA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Riparian corridor of stream.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
= Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>105</u></td> <td>x 2 = <u>210</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>305</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.35</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>105</u>	x 2 = <u>210</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>130</u> (A)	<u>305</u> (B)	Prevalence Index = B/A = <u>2.35</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>105</u>	x 2 = <u>210</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>130</u> (A)	<u>305</u> (B)																			
Prevalence Index = B/A = <u>2.35</u>																				
= Total Cover				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 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)																
= Total Cover					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.															
= Total Cover																				
= Total Cover																				
= Total Cover																				
= Total Cover																				
= Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
= Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																				

SOIL

Sampling Point: 1-SP-009

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/3	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-010
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN12
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 40.979155 Long: -83.78045 Datum: WGS 84
 Soil Map Unit Name: MCA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Riparian corridor of stream.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>240</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.18</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>240</u> (B)	Prevalence Index = B/A = <u>2.18</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>100</u>	x 2 = <u>200</u>																			
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Column Totals: <u>110</u> (A)	<u>240</u> (B)																			
Prevalence Index = B/A = <u>2.18</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
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_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
_____ = Total Cover																				

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

SOIL

Sampling Point: 1-SP-010

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10YR 6/3	97	10YR 5/6	3	C	M	Silty Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Gravel</u> Depth (Inches): <u>8</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-03
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-011
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R9E SN15
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex
 Slope (%): 2 Lat: 40.954185 Long: -83.816883 Datum: WGS 84
 Soil Map Unit Name: SpA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Riparian corridor of stream.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
5% = Total Cover				
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Bromus inermis</u>	<u>5</u>	_____	<u>FACU</u>	
3. <u>Solidago canadensis</u>	<u>5</u>	_____	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
100% = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vitis riparia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. _____	_____	_____	_____	
10% = 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>105</u>	x 2 = <u>210</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>250</u> (B)
Prevalence Index = B/A = <u>2.17</u>	

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point: 1-SP-011

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/3	100					Sandy Clay Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	---

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

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

SOIL

Sampling Point: 1-SP-012

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 4/4	100					Sandy Loam	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	---

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

Restrictive Layer (if observed): Type: <u>Gravel</u> Depth (Inches): <u>10</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-013
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1S R8E SN35
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.905926 Long: -83.905007 Datum: WGS 84
 Soil Map Unit Name: Big1B1 NWI classification: PFO1A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Celtis occidentalis</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7</u> (A/B)																
2. <u>Aesculus glabra</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
3. <u>Juglans nigra</u>	<u>10</u>		<u>FACU</u>																	
4. _____				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>105</u></td> <td>x 3 = <u>315</u></td> </tr> <tr> <td>FACU species <u>60</u></td> <td>x 4 = <u>240</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>165</u> (A)</td> <td><u>555</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.36</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>105</u>	x 3 = <u>315</u>	FACU species <u>60</u>	x 4 = <u>240</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>165</u> (A)	<u>555</u> (B)	Prevalence Index = B/A = <u>3.36</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>105</u>	x 3 = <u>315</u>																			
FACU species <u>60</u>	x 4 = <u>240</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>165</u> (A)	<u>555</u> (B)																			
Prevalence Index = B/A = <u>3.36</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>) _____ = <u>70%</u> = Total Cover																				
1. <u>Aesculus glabra</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
2. <u>Carya ovata</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. _____																				
4. _____																				
5. _____																				
Herb Stratum (Plot size: <u>5 ft r</u>) _____ = <u>25%</u> = Total Cover																				
1. <u>Carya ovata</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
2. <u>Geum canadense</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>) _____ = <u>70%</u> = Total Cover																				
1. _____																				
2. _____																				
_____ = Total Cover																				

Hydrophytic Vegetation Indicators:
 ___ 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 ___ 3 - Prevalence Index is ≤3.0¹
 ___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 ___ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes No

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

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-014
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN2
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.900769 Long: -83.903197 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1. _____	_____	_____	_____	Prevalence Index worksheet:
2. _____	_____	_____	_____	Total % Cover of: Multiply by:
3. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
4. _____	_____	_____	_____	FACW species <u>60</u> x 2 = <u>120</u>
5. _____	_____	_____	_____	FAC species <u>30</u> x 3 = <u>90</u>
_____ = Total Cover				FACU species <u>10</u> x 4 = <u>40</u>
_____ = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
_____ = Total Cover				Column Totals: <u>100</u> (A) <u>250</u> (B)
Prevalence Index = B/A = <u>2.50</u>				
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Phalaris arundinacea</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators:
2. <u>Apocynum cannabinum</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<u>1</u> - Rapid Test for Hydrophytic Vegetation
3. <u>Cirsium vulgare</u>	<u>10</u>	_____	<u>FACU</u>	<input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50%
4. _____	_____	_____	_____	<u>3</u> - Prevalence Index is ≤3.0 ¹
5. _____	_____	_____	_____	<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. _____	_____	_____	_____	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-015
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN10
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.889784 Long: -83.924779 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>0</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>NaN</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>
3. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
4. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
_____ = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
				Column Totals: <u>0</u> (A) <u>0</u> (B)
				Prevalence Index = B/A = <u>NaN</u>
Herb Stratum (Plot size: <u>5 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Zea mays</u>	<u>30</u>	<input checked="" type="checkbox"/>	_____	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____	<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>30%</u> = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present. 70% bare ground due to farming.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-04
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-016
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R8E SN16
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.871965 Long: -83.956059 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Upland swale in agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>250</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.50</u>	Total % Cover of:	Multiply by:	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>250</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>50</u>	x 1 = <u>50</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>50</u>	x 4 = <u>200</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>250</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Carex lurida</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	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.														
2. <u>Festuca rubra</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>100%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

SOIL

Sampling Point: 1-SP-016

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/2	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

SOIL

Sampling Point: 1-SP-017

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 6/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

SOIL

Sampling Point: 1-SP-018

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 6/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	---

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

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Bluffton/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-019
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R7E SN25
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.842426 Long: -84.002647 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: PSS1C

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>NaN</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>NaN</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
_____ = Total Cover				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.														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

SOIL

Sampling Point: 1-SP-019

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 3/2	100					Silty Clay	
6 - 20	10YR 3/2	97	10YR 5/6	3	C	M	Silty Clay	
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Coast Prairie Redox (A16)</p> <p><input type="checkbox"/> Dark Surface (S7)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
--	---	--

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

Restrictive Layer (if observed):

Type: _____

Depth (Inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____</p>
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:

Wetland hydrology present.

SOIL

Sampling Point: 1-SP-020

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 6/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Lima/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-021
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2S R7E SN35
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.830882 Long: -84.019862 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Upland swale in agricultural field.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Prevalence Index worksheet:				
Total % Cover of: _____ Multiply by: _____				
OBL species <u>0</u> x 1 = <u>0</u>				
FACW species <u>0</u> x 2 = <u>0</u>				
FAC species <u>0</u> x 3 = <u>0</u>				
FACU species <u>100</u> x 4 = <u>400</u>				
UPL species <u>0</u> x 5 = <u>0</u>				
Column Totals: <u>100</u> (A) <u>400</u> (B)				
Prevalence Index = B/A = <u>4.00</u>				
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Remarks: (Include photo numbers here or on a separate sheet.)				
Hydrophytic vegetation absent.				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Lima/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-022
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T3S R7E SN2
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.816987 Long: -84.023091 Datum: WGS 84
 Soil Map Unit Name: ShA NWI classification: R5UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Riparian corridor of stream.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>5%</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>105</u> x 2 = <u>210</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>105</u> (A) <u>210</u> (B) Prevalence Index = B/A = <u>2.00</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1. <u>Convolvulus arvensis</u>	<u>10</u>	<input checked="" type="checkbox"/>	_____	
2. _____	_____	_____	_____	
<u>10%</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.				
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

SOIL

Sampling Point: 1-SP-022

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Lima/Allen Sampling Date: 2022-07-05
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-023
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T3S R7E SN2
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 40.810354 Long: -84.024449 Datum: WGS 84
 Soil Map Unit Name: ShA NWI classification: PEM1A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Not a wetland. Mown yard.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
_____ = Total Cover				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.														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-06-30
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-T
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R11E SN31
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.086924 Long: -83.648955 Datum: WGS 84
 Soil Map Unit Name: SkB NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 13.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>80</u></td> <td>x 1 = <u>80</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>140</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.40</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>80</u>	x 1 = <u>80</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>140</u> (B)	Prevalence Index = B/A = <u>1.40</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>80</u>	x 1 = <u>80</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>140</u> (B)																			
Prevalence Index = B/A = <u>1.40</u>																				
_____ = Total Cover				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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.																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-U
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R10E SN36
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 41.082425 Long: -83.662281 Datum: WGS 84
 Soil Map Unit Name: PmA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 26.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
= Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>40</u></td> <td>x 1 = <u>40</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>160</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.60</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>40</u>	x 1 = <u>40</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>160</u> (B)	Prevalence Index = B/A = <u>1.60</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>40</u>	x 1 = <u>40</u>																			
FACW species <u>60</u>	x 2 = <u>120</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>160</u> (B)																			
Prevalence Index = B/A = <u>1.60</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
= Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Bidens frondosa</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. <u>Carex vulpinoidea</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Eleocharis palustris</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																	
4. <u>Carex tribuloides</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
<u>100%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
= Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																				

SOIL

Sampling Point: 1-U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/2	95	10YR 6/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present.		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-U/V UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R10E SN36
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 41.082751 Long: -83.662036 Datum: WGS 84
 Soil Map Unit Name: DfA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Upland point for Wetland 1-U and Wetland 1-V.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>420</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.82</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>110</u> (A)	<u>420</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>10</u>	x 2 = <u>20</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>110</u> (A)	<u>420</u> (B)																	
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				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.														
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover																		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														

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

Hydrophytic vegetation absent.

SOIL

Sampling Point: 1-U/V UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 7/2	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology absent.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-V
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R10E SN36
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 41.082827 Long: -83.661814 Datum: WGS 84
 Soil Map Unit Name: DfA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. ORAM score of 26.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>150</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.50</u>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>150</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>60</u>	x 1 = <u>60</u>																	
FACW species <u>30</u>	x 2 = <u>60</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>150</u> (B)																	
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Carex squarrosa</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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)														
2. <u>Bidens frondosa</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Apocynum cannabinum</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>															
4. <u>Eleocharis palustris</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>															
5. <u>Scirpus cyperinus</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>100%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.																		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-W
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN3
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 41.066649 Long: -83.695703 Datum: WGS 84
 Soil Map Unit Name: Gwe1B1 NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: PEM. Bordered by man-made berms. Located between two power facilities. ORAM score of 23.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species <u>30</u> x 1 = <u>30</u>
3. _____	_____	_____	_____	FACW species <u>70</u> x 2 = <u>140</u>
4. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
5. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
_____ = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>
Herb Stratum (Plot size: <u>5 ft r</u>)				Column Totals: <u>100</u> (A) <u>170</u> (B)
1. <u>Phalaris arundinacea</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Prevalence Index = B/A = <u>1.70</u>
2. <u>Juncus torreyi</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Scirpus atrovirens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
4. <u>Carex stricta</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
				<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

SOIL

Sampling Point: 1-W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 5/2	90	10YR 6/6	10	C	PL / M	Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>14</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology present.		

SOIL

Sampling Point: 1-W UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 5/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Gravel</u> Depth (Inches): <u>6</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:
Hydric soil absent.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Wetland hydrology absent.		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AA
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN9
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1
 Subregion (LRR or MLRA): L Lat: 41.057047 Long: -83.710078 Datum: WGS 84
 Soil Map Unit Name: OrA NWI classification: R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>1-AA</u>
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Remarks: (Explain alternative procedures here or in a separate report.)

PEM. ORAM score of 30.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: 1-AA

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
				Dominance Test worksheet:
				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
				Prevalence Index worksheet:
		Total % Cover of:	Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>	
FACW species	<u>100</u>	x 2 =	<u>200</u>	
FAC species	<u>0</u>	x 3 =	<u>0</u>	
FACU species	<u>0</u>	x 4 =	<u>0</u>	
UPL species	<u>0</u>	x 5 =	<u>0</u>	
Column Totals:	<u>100</u>	(A)	<u>200</u>	(B)
				Prevalence Index = B/A = <u>2.0</u>
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
				Hydrophytic Vegetation Indicators:
				<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
				<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
				<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1. <u>Convolvulus arvensis</u>	<u>10</u>	<input checked="" type="checkbox"/>		
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vines – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
Hydrophytic vegetation present.				

SOIL

Sampling Point: 1-AA

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 4/2	100					Silty Clay	Gravel inclusions
6 - 20	10YR 4/2	95	10YR 5/6	5	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil present

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AA UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN9
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR or MLRA): L Lat: 41.056988 Long: -83.710258 Datum: WGS 84
 Soil Map Unit Name: OrA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)

Upland point for Wetland 1-AA. Mowed. Soil compacted.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology absent

VEGETATION – Use scientific names of plants.

Sampling Point: 1-AA UPL

	Absolute % Cover	Dominant Species?	Indicator Status																																	
Tree Stratum (Plot size: <u>30 ft r</u>)																																				
1. <u>Juglans nigra</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																																
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
	<u>10%</u>	= Total Cover																																		
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																																				
1. _____				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"></td> <td style="text-align:center;">Total % Cover of:</td> <td style="width:50%;"></td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td style="text-align:center;"><u>0</u></td> <td>x 1 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;"><u>0</u></td> <td>x 2 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;"><u>0</u></td> <td>x 3 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;"><u>110</u></td> <td>x 4 =</td> <td style="text-align:center;"><u>440</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;"><u>0</u></td> <td>x 5 =</td> <td style="text-align:center;"><u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;"><u>110</u></td> <td>(A)</td> <td style="text-align:center;"><u>440</u> (B)</td> </tr> <tr> <td colspan="4" style="text-align:right;">Prevalence Index = B/A = <u>4.0</u></td> </tr> </table>		Total % Cover of:		Multiply by:	OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>0</u>	x 2 =	<u>0</u>	FAC species	<u>0</u>	x 3 =	<u>0</u>	FACU species	<u>110</u>	x 4 =	<u>440</u>	UPL species	<u>0</u>	x 5 =	<u>0</u>	Column Totals:	<u>110</u>	(A)	<u>440</u> (B)	Prevalence Index = B/A = <u>4.0</u>			
	Total % Cover of:		Multiply by:																																	
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>0</u>	x 2 =	<u>0</u>																																	
FAC species	<u>0</u>	x 3 =	<u>0</u>																																	
FACU species	<u>110</u>	x 4 =	<u>440</u>																																	
UPL species	<u>0</u>	x 5 =	<u>0</u>																																	
Column Totals:	<u>110</u>	(A)	<u>440</u> (B)																																	
Prevalence Index = B/A = <u>4.0</u>																																				
2. _____																																				
3. _____																																				
4. _____																																				
5. _____																																				
6. _____																																				
7. _____																																				
		= Total Cover																																		
Herb Stratum (Plot size: <u>5 ft r</u>)																																				
1. <u>Festuca rubra</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																																
2. <u>Trifolium repens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																																	
3. <u>Parthenocissus quinquefolia</u>	<u>10</u>		<u>FACU</u>																																	
4. <u>Plantago lanceolata</u>	<u>10</u>		<u>FACU</u>																																	
5. _____																																				
6. _____																																				
7. _____																																				
8. _____																																				
9. _____																																				
10. _____																																				
11. _____																																				
12. _____																																				
	<u>100%</u>	= Total Cover																																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																																				
1. _____				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																																
2. _____																																				
3. _____																																				
4. _____																																				
		= Total Cover																																		
Remarks: (Include photo numbers here or on a separate sheet.)																																				
Hydrophytic vegetation absent																																				
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																																

SOIL

Sampling Point: 1-AA UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 5	10YR 5/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel
 Depth (inches): 5

Hydric Soil Present? Yes No

Remarks:

Hydric soil absent

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AB
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN16
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1
 Subregion (LRR or MLRA): L Lat: 41.043466 Long: -83.723318 Datum: WGS 84
 Soil Map Unit Name: SnA NWI classification: R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>1-AB</u>
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Remarks: (Explain alternative procedures here or in a separate report.)

PEM. ORAM score of 38.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: 1-AB

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>100</u></td> <td>x 1 = <u>100</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>100</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.0</u>	Total % Cover of:	Multiply by:	OBL species <u>100</u>	x 1 = <u>100</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>100</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>100</u>	x 1 = <u>100</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>100</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 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.														
1. <u>Typha angustifolia</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
1. <u>Convolvulus arvensis</u>	<u>10</u>	<input checked="" type="checkbox"/>	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>10%</u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation present.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____														

SOIL

Sampling Point: 1-AB

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 4/2	95	10YR 5/6	5	C	PL / M	Silty Clay	
6 - 20	10YR 4/2	90	10YR 5/6	10	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil present

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AB UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN16
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 1
 Subregion (LRR or MLRA): L Lat: 41.043394 Long: -83.723432 Datum: WGS 84
 Soil Map Unit Name: SnA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)

Upland point for Wetland 1-AB. Mowed. Soil compacted.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology absent

VEGETATION – Use scientific names of plants.

Sampling Point: 1-AB UPL

<u>Tree Stratum</u> (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
	<u>0%</u>	= Total Cover		Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: right;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.0</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft r</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
		= Total Cover		Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>														
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>)																		
1. <u>Plantago lanceolata</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Trifolium repens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. <u>Ambrosia artemisiifolia</u>	<u>10</u>		<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
	<u>100%</u>	= Total Cover																
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
		= Total Cover																

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

Hydrophytic vegetation absent

SOIL

Sampling Point: 1-AB UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 10	10YR 6/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel
 Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

Hydric soil absent

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AC
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN16
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): L Lat: 41.047855 Long: -83.71889 Datum: WGS 84
 Soil Map Unit Name: RtA NWI classification: PFO1C/R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>1-AC</u>
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Remarks: (Explain alternative procedures here or in a separate report.)

PEM. ORAM score of 34.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): 14
 (includes capillary fringe) **Wetland Hydrology Present?** Yes No

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

Remarks:

Wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: 1-AC

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: <u>30 ft r</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>120</u></td> <td>x 2 = <u>240</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>240</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>120</u>	x 2 = <u>240</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>120</u> (A)	<u>240</u> (B)	Prevalence Index = B/A = <u>2.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>120</u>	x 2 = <u>240</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>120</u> (A)	<u>240</u> (B)																			
Prevalence Index = B/A = <u>2.0</u>																				
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																				
1. <u>Acer saccharinum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft r</u>)																				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
<u>100%</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																				
1. <u>Convolvulus arvensis</u>	<u>10</u>	<input checked="" type="checkbox"/>																		
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
<u>10%</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Hydrophytic vegetation present.

Hydrophytic Vegetation Present? Yes No _____

SOIL

Sampling Point: 1-AC

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 20	10YR 4/2	95	10YR 5/6	5	C	M	Silty Clay	Gravel inclusions
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Hydric soil present

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-AC UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN16
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): L Lat: 41.048423 Long: -83.718413 Datum: WGS 84
 Soil Map Unit Name: RtA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Upland point for Wetland 1-AC.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology absent.	

VEGETATION – Use scientific names of plants.

Sampling Point: 1-AC UPL

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>20</u></td> <td>x 2 = <u>40</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x 4 = <u>180</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>295</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.69</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>20</u>	x 2 = <u>40</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>45</u>	x 4 = <u>180</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>80</u> (A)	<u>295</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>20</u>	x 2 = <u>40</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>45</u>	x 4 = <u>180</u>																	
UPL species <u>15</u>	x 5 = <u>75</u>																	
Column Totals: <u>80</u> (A)	<u>295</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	_____	_____	_____															
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)	_____	_____	_____															
1. <u>Cirsium arvense</u>	<u>45</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Phalaris arundinacea</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Asclepias syriaca</u>	<u>15</u>		<u>UPL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>80%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	_____	_____	_____															
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
_____ = Total Cover																		

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

Hydrophytic vegetation absent.

Hydrophytic Vegetation Present? Yes _____ No

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Fostoria/Hancock Sampling Date: 2022-06-29
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-001
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T2N R12E SN12
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): L Lat: 41.15021 Long: -83.438455 Datum: WGS 84
 Soil Map Unit Name: SmA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Not a wetland.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology absent.	

VEGETATION – Use scientific names of plants.

Sampling Point: 1-SP-001

	Absolute % Cover	Dominant Species?	Indicator Status															
Tree Stratum (Plot size: <u>30 ft r</u>)																		
1. <u>Robinia pseudoacacia</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16.7</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>5%</u>	= Total Cover																
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Robinia pseudoacacia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x 3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>85</u></td> <td>x 4 = <u>340</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>115</u> (A)</td> <td><u>430</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.74</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>85</u>	x 4 = <u>340</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>115</u> (A)	<u>430</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>30</u>	x 3 = <u>90</u>																	
FACU species <u>85</u>	x 4 = <u>340</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>115</u> (A)	<u>430</u> (B)																	
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
	<u>10%</u>	= Total Cover																
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Festuca rubra</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
2. <u>Toxicodendron radicans</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. <u>Cirsium arvense</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
4. <u>Parthenocissus quinquefolia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
	<u>100%</u>	= Total Cover																
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. _____				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
2. _____																		
3. _____																		
4. _____																		
	_____ = Total Cover																	
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																		

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

Hydrophytic vegetation absent.

SOIL

Sampling Point: 1-SP-001

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 13	10YR 5/2	100					Silty Clay	
13 - 20	10YR 5/2	97	10YR 5/6	3	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Hydric soil absent.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-006
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN16
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 3
 Subregion (LRR or MLRA): L Lat: 41.047617 Long: -83.719102 Datum: WGS 84
 Soil Map Unit Name: HpA NWI classification: R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Not a wetland. Riparian corridor of stream.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology absent.	

VEGETATION – Use scientific names of plants.

Sampling Point: 1-SP-006

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%; text-align: right;">Total % Cover of:</td> <td style="width:50%; text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>220</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.32</u>	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>45</u>	x 3 = <u>135</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u> (A)	<u>220</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>15</u>	x 1 = <u>15</u>																	
FACW species <u>35</u>	x 2 = <u>70</u>																	
FAC species <u>45</u>	x 3 = <u>135</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>95</u> (A)	<u>220</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																		
1. <u>Celtis occidentalis</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. <u>Fraxinus pennsylvanica</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
3. <u>Salix nigra</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
<u>55%</u> = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)														
Herb Stratum (Plot size: <u>5 ft r</u>)																		
1. <u>Phalaris arundinacea</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>															
2. <u>Toxicodendron radicans</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>30%</u> = Total Cover				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.														
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																		
1. <u>Vitis riparia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>10%</u> = Total Cover					Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____													

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

Hydrophytic vegetation present.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-02
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-SP-007
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN29
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR or MLRA): L Lat: 41.01945 Long: -83.744713 Datum: WGS 84
 Soil Map Unit Name: RhA NWI classification: R4SBC

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="font-size: 1.2em; margin-top: 10px;">Not a wetland. Riparian corridor of stream.</p>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: <p style="font-size: 1.2em; margin-top: 10px;">Wetland hydrology absent.</p>	

VEGETATION – Use scientific names of plants.

Sampling Point: 1-SP-007

Tree Stratum (Plot size: <u>30 ft r</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>20</u></td> <td>x 5 = <u>100</u></td> </tr> <tr> <td>Column Totals: <u>110</u> (A)</td> <td><u>450</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.09</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>110</u> (A)	<u>450</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>80</u>	x 4 = <u>320</u>																	
UPL species <u>20</u>	x 5 = <u>100</u>																	
Column Totals: <u>110</u> (A)	<u>450</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)	_____	_____	_____															
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft r</u>)	_____	_____	_____															
1. <u>Cirsium arvense</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Festuca rubra</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. <u>Bromus inermis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>UPL</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
12. _____	_____	_____	_____															
<u>100%</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	_____	_____	_____															
1. <u>Vitis riparia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>10%</u> = Total Cover																		
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																		
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																		
Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>																		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation absent.																		

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-X
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN10
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): M Lat: 41.064703 Long: -83.699761 Datum: WGS 84
 Soil Map Unit Name: Gwe1B1 NWI classification: PFO1C

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>1-X</u>
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Remarks: (Explain alternative procedures here or in a separate report.)

PEM. ORAM score of 28.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: 1-X

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
				_____ = Total Cover
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
				_____ = Total Cover
Herb Stratum (Plot size: <u>5 ft r</u>)				
1.	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2.	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
				<u>100%</u> = Total Cover
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
				_____ = 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 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>90</u>	x 2 = <u>180</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>210</u> (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0¹
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

Hydrophytic vegetation present.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-X UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN10
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR or MLRA): M Lat: 41.064985 Long: -83.699223 Datum: WGS 84
 Soil Map Unit Name: Gwe1B1 NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)

Upland point for Wetland 1-X

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology absent

VEGETATION – Use scientific names of plants.

Sampling Point: 1-X UPL

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Festuca rubra</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. <u>Phalaris arundinacea</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Cirsium arvense</u>	<u>10</u>		<u>FACU</u>	
4. <u>Daucus carota</u>	<u>10</u>		<u>UPL</u>	
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>100%</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
	_____ = 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: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>40</u>	x 2 = <u>80</u>
FAC species	<u>0</u>	x 3 = <u>0</u>
FACU species	<u>50</u>	x 4 = <u>200</u>
UPL species	<u>10</u>	x 5 = <u>50</u>
Column Totals:	<u>100</u> (A)	<u>330</u> (B)

Prevalence Index = B/A = 3.30

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

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

Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No

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

Hydrophytic vegetation absent

SOIL

Sampling Point: 1-X UPL

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10YR 6/3	100					Silty Clay	
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								
-								

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel
 Depth (inches): 8

Hydric Soil Present? Yes No

Remarks:

Hydric soil absent

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-Y
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN10
 Landform (hillslope, terrace, etc.): Depression Toeslope Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR or MLRA): M Lat: 41.064152 Long: -83.701299 Datum: WGS 84
 Soil Map Unit Name: SoA NWI classification: R5UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>1-Y</u>
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Remarks: (Explain alternative procedures here or in a separate report.)

PEM. ORAM score of 32.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: 1-Y

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Phalaris arundinacea</u>	<u>95</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Rumex crispus</u>	<u>5</u>		<u>FAC</u>	
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>100%</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
	_____ = 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 (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>95</u>	x 2 = <u>190</u>
FAC species	<u>5</u>	x 3 = <u>15</u>
FACU species	<u>0</u>	x 4 = <u>0</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>100</u> (A)	<u>205</u> (B)

Prevalence Index = B/A = 2.05

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0¹
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

Hydrophytic vegetation present.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-Y UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN10
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR or MLRA): M Lat: 41.064185 Long: -83.701198 Datum: WGS 84
 Soil Map Unit Name: SoA NWI classification: R5UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Upland point for Wetland 1-Y.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology absent.	

VEGETATION – Use scientific names of plants.

Sampling Point: 1-Y UPL

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
Herb Stratum (Plot size: <u>5 ft r</u>)				
1.	<u>Phalaris arundinacea</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2.	<u>Verbesina alternifolia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
3.	<u>Cirsium arvense</u>	<u>5</u>		<u>FACU</u>
4.	<u>Phytolacca americana</u>	<u>5</u>		<u>FACU</u>
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	<u>100%</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
	_____ = Total Cover			

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>90</u>	x 2 = <u>180</u>
FAC species	<u>0</u>	x 3 = <u>0</u>
FACU species	<u>10</u>	x 4 = <u>40</u>
UPL species	<u>0</u>	x 5 = <u>0</u>
Column Totals:	<u>100</u> (A)	<u>220</u> (B)

Prevalence Index = B/A = 2.20

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- 2 - Dominance Test is >50%
- 3 - Prevalence Index is ≤3.0¹
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

Hydrophytic vegetation present

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-Z
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN9
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR or MLRA): L Lat: 41.057472 Long: -83.70964 Datum: WGS 84
 Soil Map Unit Name: SnA NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>1-Z</u>
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Remarks: (Explain alternative procedures here or in a separate report.)

PEM. ORAM score of 22.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: 1-Z

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
				_____ = Total Cover
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
				_____ = Total Cover
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Typha angustifolia</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
2. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
3. <u>Scirpus atrovirens</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
				<u>100%</u> = Total Cover
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
				_____ = 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 (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 90 x 1 = 90
 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: 100 (A) 110 (B)
 Prevalence Index = B/A = 1.10

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:
Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

Hydrophytic vegetation present.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: AEP Fostoria to Lima City/County: Findlay/Hancock Sampling Date: 2022-07-01
 Applicant/Owner: AEP State: Ohio Sampling Point: 1-Z UPL
 Investigator(s): Beth Hollinden, Chris Davisson Section, Township, Range: OH01 T1N R10E SN9
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR or MLRA): L Lat: 41.057288 Long: -83.709783 Datum: WGS 84
 Soil Map Unit Name: SnA NWI classification: N/A

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Upland point for Wetland 1-Z.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Wetland hydrology absent	

VEGETATION – Use scientific names of plants.

Sampling Point: 1-Z UPL

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
				_____ = Total Cover
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
				_____ = Total Cover
Herb Stratum (Plot size: <u>5 ft r</u>)				
1.	<u>Phalaris arundinacea</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2.	<u>Cirsium arvense</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
3.	<u>Festuca rubra</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<u>100%</u>		= Total Cover
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1.				
2.				
3.				
4.				
				_____ = 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>300</u> (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

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

Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No

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

Hydrophytic vegetation absent

Wetland 1-A

Site: A&P Fostoria to Lima Rater(s): Beth Hollinder, Chris Davissen Date: 6/29/2022

Wetland 1-A

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size)

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

1	3
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

13	16
max 30 pts.	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

<ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input checked="" type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) 	<p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input
--	--

7	23
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | | | |
|--|---|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input checked="" type="checkbox"/> nutrient enrichment </td> </tr> </table> | <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input checked="" type="checkbox"/> nutrient enrichment |
| <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input checked="" type="checkbox"/> nutrient enrichment | | |

23
subtotal this page

Site: AEP Fostoria to Lima

Rater(s): Beth Hollinden, Chris Dawisson

Date: 6/29/2022

Wetland 1-A

23

subtotal first page

0 23

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 21

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersions.

Select only one.

- High (5)
- Moderately high (4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

21

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawisson Date: 6/29/22

Wetland 1-B

2 **2**
max 6 pts subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

1 **3**
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

13 **16**
max 30 pts subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.

Check all disturbances observed	
<input checked="" type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

7 **23**
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.

Check all disturbances observed	
<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input checked="" type="checkbox"/> nutrient enrichment

23
subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Davison **Date:** 6/29/2022

wetland 1-B

23
subtotal first page

0 23
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 21
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

21

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima Rater(s): Beth Hollinden, Chris Davisson Date: 6/29/22

wetland 1-C

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1	3
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

13	16
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/intermittent surface water (lake or stream) (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

7	23
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input checked="" type="checkbox"/> nutrient enrichment

23

subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawisson Date: 6/29/2022

Wetland I-C

23

subtotal first page

0 23

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 21

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

21

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima

Rater(s): Beth Hollinden, Chris Davison

Date: 6/29/22

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Wetland 1-D

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

4	6
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

15	21
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

9	30
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|---|
| <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

30
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 6/29/2022

Wetland 1-D

30
subtotal first page

0 30
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

2 32
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

32

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima

Rater(s): Beth Hollinden, CW's Davisson

Date: 6/30/22

Wetland 1-E

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1	2
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	9
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

7	16
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- mowing
- grazing
- clearcutting
- selective cutting
- woody debris removal
- toxic pollutants
- shrub/sapling removal
- herbaceous/aquatic bed removal
- sedimentation
- dredging
- farming
- nutrient enrichment

16

subtotal this page

Site: A&P Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawisson Date: 6/30/2022

Wetland 1-E

16

subtotal first page

0 16

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-3 13

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

13

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawisson Date: 6/30/22

wetland 1-F

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	8
max 30 pts.	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input <input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input checked="" type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____ |
|---|---|

7	15
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
|--|--|

15
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 6/30/2022

Wetland 1-F

15
subtotal first page

0 15
max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-3 12
max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
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Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

12

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 6/30/2022
Wetland 1-G

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	8
max 30 pts.	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input |
|---|--|
- | |
|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input checked="" type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____ |
|--|

7	15
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment </td> </tr> </table> | <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
| <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment | | |

15
subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Beth Holliday, Ann Dawson **Date:** 6/30/2022

Wetland 1-G

15

subtotal first page

0 15

max 10 pts

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-3 12

max 20 pts

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

12

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Dawissen **Date:** 6/30/22

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Wetland I+H

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

1	1
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	8
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

<ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) 	<p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> ditch</td> <td><input type="checkbox"/> point source (nonstormwater)</td> </tr> <tr> <td><input type="checkbox"/> tile</td> <td><input checked="" type="checkbox"/> filling/grading</td> </tr> <tr> <td><input type="checkbox"/> dike</td> <td><input checked="" type="checkbox"/> road bed/RR track</td> </tr> <tr> <td><input type="checkbox"/> weir</td> <td><input type="checkbox"/> dredging</td> </tr> <tr> <td><input type="checkbox"/> stormwater input</td> <td><input type="checkbox"/> other _____</td> </tr> </table>	<input checked="" type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)	<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading	<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track	<input type="checkbox"/> weir	<input type="checkbox"/> dredging	<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____
<input checked="" type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)										
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading										
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track										
<input type="checkbox"/> weir	<input type="checkbox"/> dredging										
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____										

7	15
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.

<ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) 	<p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> mowing</td> <td><input type="checkbox"/> shrub/sapling removal</td> </tr> <tr> <td><input type="checkbox"/> grazing</td> <td><input type="checkbox"/> herbaceous/aquatic bed removal</td> </tr> <tr> <td><input type="checkbox"/> clearcutting</td> <td><input checked="" type="checkbox"/> sedimentation</td> </tr> <tr> <td><input type="checkbox"/> selective cutting</td> <td><input type="checkbox"/> dredging</td> </tr> <tr> <td><input type="checkbox"/> woody debris removal</td> <td><input type="checkbox"/> farming</td> </tr> <tr> <td><input type="checkbox"/> toxic pollutants</td> <td><input type="checkbox"/> nutrient enrichment</td> </tr> </table>	<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal	<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal	<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation	<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging	<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming	<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment
<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal												
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal												
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation												
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging												
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming												
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment												

15
subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Bath Hollinden, Chris Dawisson **Date:** 6/30/2022
Wetland 1-H

15

subtotal first page

-10 15

max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-3 12

max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

12

End of Quantitative Rating. Complete Categorization Worksheets.

Site: ASP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 6/30/22

Wetland 1-I

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

1	1
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	8
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

<ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) 	<p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> point source (nonstormwater) <input type="checkbox"/> filling/grading <input type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____
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6	14
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
|--|--|

14
subtotal this page

Site: ASP Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawison Date: 6/30/2022

Wetland 1-I

14

subtotal first page

0 14

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

0 14

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

14

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima Rater(s): Beth Hollinden, Chris Davisson Date: 6/30/22

1 1
max 6 pts subtotal

Metric 1. Wetland Area (size).

Wetland 1-5

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7 8
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

18 16
max 30 pts subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed

- | | |
|---|---|
| <input checked="" type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> other |

9 25
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|---|
| <input checked="" type="checkbox"/> mowing | <input checked="" type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

25
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawson Date: 6/30/2022

Wetland 1-J

25
subtotal first page

0 25
max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

5 30
max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

30

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostonia to Lima Rater(s): Beth Hollinden, Chris Dawisson Date: 6/30/2022

1 **1**
max 6 pts subtotal

Metric 1. Wetland Area (size).

Wetland 1-k

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

12 **13**
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

16 **29**
max 30 pts subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12)
 - Recovered (7)
 - Recovering (3)
 - Recent or no recovery (1)
- Check all disturbances observed

 - ditch
 - tile
 - dike
 - weir
 - stormwater input
 - point source (nonstormwater)
 - filling/grading
 - road bed/RR track
 - dredging
 - other _____

13 **42**
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- None or none apparent (9)
 - Recovered (6)
 - Recovering (3)
 - Recent or no recovery (1)
- Check all disturbances observed

 - mowing
 - grazing
 - clearcutting
 - selective cutting
 - woody debris removal
 - toxic pollutants
 - shrub/sapling removal
 - herbaceous/aquatic bed removal
 - sedimentation
 - dredging
 - farming
 - nutrient enrichment

42
subtotal this page

Site: AEP Fostonia to Lima **Rater(s):** Beth Hollinden, Chris Dawissen **Date:** 6/30/2022

Wetland 1-K

42

subtotal first page

0 42

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

4 46

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- 2 Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussocks
- 0 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 2 Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

46

End of Quantitative Rating. Complete Categorization Worksheets.

Site: ASP Fostoria to Lima Rater(s): Beth Hollinder, Chris Davison Date: 6/30/2022

Wetland 1-L

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

12	12
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

18	20
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12)
 - Recovered (7)
 - Recovering (3)
 - Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

9	29
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- None or none apparent (9)
 - Recovered (6)
 - Recovering (3)
 - Recent or no recovery (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

29
subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Davisson **Date:** 6/30/2022

Wetland 1-L

29
subtotal first page

0 29
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 32
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

32

End of Quantitative Rating. Complete Categorization Worksheets.

Site: APP Tostoria to Lima **Rater(s):** Belu Hollinden, Chris Davissen **Date:** 6/30/2022

Wetland I-M

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

9	9
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

18	17
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

<ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) 	<p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input
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9	26
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> mowing <input checked="" type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants |
|--|--|

26
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davlison Date: 6/30/2022

wetland 1-M

26

subtotal first page

0 26

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 29

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

29

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Davison **Date:** 6/30/2022

Wetland 1-N
51

0 0
max 6 pts subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

12 12
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7 19
max 30 pts subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.

<input type="checkbox"/> None or none apparent (12)	<input type="checkbox"/> Check all disturbances observed	<input type="checkbox"/> point source (nonstormwater)
<input checked="" type="checkbox"/> Recovered (7)	<input type="checkbox"/> ditch	<input checked="" type="checkbox"/> filling/grading
<input checked="" type="checkbox"/> Recovering (3)	<input type="checkbox"/> tile	<input type="checkbox"/> road bed/RR track
<input type="checkbox"/> Recent or no recovery (1)	<input type="checkbox"/> dike	<input type="checkbox"/> dredging
	<input type="checkbox"/> weir	<input type="checkbox"/> other
	<input type="checkbox"/> stormwater input	

9 28
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- None or none apparent (9)
 - Recovered (6)
 - Recovering (3)
 - Recent or no recovery (1)

<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

28
subtotal this page

Site: A&P Fostoria to Lima

Rater(s): Beth Hollinden, Chris Dawson

Date: 6/30/2022

Wetland I-N

28

subtotal first page

0 28

max 10 pts

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 31

max 20 pts

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- 2 Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high (4)
- 3 Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

31

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinder, Chris Dawissen **Date:** 6/30/2022

Wetland 1-0

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

12	12
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	19
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

- point source (nonstormwater)
- filling/grading
- road bed/RR track
- dredging
- other _____

9	28
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- mowing
- grazing
- clearcutting
- selective cutting
- woody debris removal
- toxic pollutants

- shrub/sapling removal
- herbaceous/aquatic bed removal
- sedimentation
- dredging
- farming
- nutrient enrichment

28
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 6/30/2022

Wetland 1-0

28

subtotal first page

0 28

max 10 pts

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 31

max 20 pts

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

31

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Bella Hollinden, Chris Davison Date: 6/30/2022

Wetland 1-P

1 **1**
max 6 pts subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

7 **8**
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7 **15**
max 30 pts subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | | |
|---|---|---|
| <input type="checkbox"/> None or none apparent (12) | <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input checked="" type="checkbox"/> Recovered (7) | <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading |
| <input checked="" type="checkbox"/> Recovering (3) | <input type="checkbox"/> dike | <input type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> Recent or no recovery (1) | <input type="checkbox"/> weir | <input type="checkbox"/> dredging |
| | <input type="checkbox"/> stormwater input | <input type="checkbox"/> other _____ |

10 **26**
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | | |
|--|--|---|
| <input type="checkbox"/> None or none apparent (9) | <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input checked="" type="checkbox"/> Recovered (6) | <input checked="" type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input checked="" type="checkbox"/> Recovering (3) | <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation |
| <input type="checkbox"/> Recent or no recovery (1) | <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| | <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| | <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

26
subtotal this page

Site: AEP Fostoria to Lima	Rater(s): Beth Hollinden, Chris Davison	Date: 6/30/2022 Wetland 1-P
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26

subtotal first page

0	26
max 10 pts	subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

4	30
max 20 pts	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

30

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima

Rater(s): Betta Hollinder, Chris Davison

Date: 6/30/2022

Wetland I-Q

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1	3
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

10	13
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

6	19
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input checked="" type="checkbox"/> nutrient enrichment

19
subtotal this page

Site: A&P Fostoria to Lima Rater(s): Beth Hollinder, Chris Davison Date: 6/30/2022

Wetland 1-a

19

subtotal first page

0 19

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 17

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima **Rater(s):** Beta Hollinden, Chris Rawisson **Date:** 6/30/2022

Wetland 1-R

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1	3
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

10	13
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

6	19
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input checked="" type="checkbox"/> nutrient enrichment

19
subtotal this page

Site: AEP Fostonia to Lima

Rater(s): Beth Hollinden, Chris Davison

Date: 6/30/2022

Wetland 1-R

19

subtotal first page

0

max 10 pts.

19

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2

max 20 pts.

17

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Betsy Hollinden, Chris Dawisson Date: 6/30/2022

Wetland 1-5

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1	1
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	8
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

6	14
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

14
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawson Date: 6/30/2022

Wetland 1-S

14
subtotal first page

0 14
max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 12
max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- 1 Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

12

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Betsy Hollinden, Chris Davison Date: 6/30/2022

Wetland 1-T

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1	3
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	10
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- | | | | | | | | | | | | |
|---|---|--------------------------------|---|-------------------------------|---|-------------------------------|---|-------------------------------|-----------------------------------|---|--------------------------------------|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> ditch</td> <td><input type="checkbox"/> point source (nonstormwater)</td> </tr> <tr> <td><input type="checkbox"/> tile</td> <td><input checked="" type="checkbox"/> filling/grading</td> </tr> <tr> <td><input type="checkbox"/> dike</td> <td><input checked="" type="checkbox"/> road bed/RR track</td> </tr> <tr> <td><input type="checkbox"/> weir</td> <td><input type="checkbox"/> dredging</td> </tr> <tr> <td><input type="checkbox"/> stormwater input</td> <td><input type="checkbox"/> other _____</td> </tr> </table> | <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) | <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading | <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track | <input type="checkbox"/> weir | <input type="checkbox"/> dredging | <input type="checkbox"/> stormwater input | <input type="checkbox"/> other _____ |
| <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) | | | | | | | | | | |
| <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading | | | | | | | | | | |
| <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track | | | | | | | | | | |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging | | | | | | | | | | |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> other _____ | | | | | | | | | | |

6	16
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- | | | | | | | | | | | | | | |
|--|---|---------------------------------|--|----------------------------------|---|---------------------------------------|---|--|-----------------------------------|---|----------------------------------|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> mowing</td> <td><input type="checkbox"/> shrub/sapling removal</td> </tr> <tr> <td><input type="checkbox"/> grazing</td> <td><input type="checkbox"/> herbaceous/aquatic bed removal</td> </tr> <tr> <td><input type="checkbox"/> clearcutting</td> <td><input checked="" type="checkbox"/> sedimentation</td> </tr> <tr> <td><input type="checkbox"/> selective cutting</td> <td><input type="checkbox"/> dredging</td> </tr> <tr> <td><input type="checkbox"/> woody debris removal</td> <td><input type="checkbox"/> farming</td> </tr> <tr> <td><input type="checkbox"/> toxic pollutants</td> <td><input type="checkbox"/> nutrient enrichment</td> </tr> </table> | <input type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal | <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal | <input type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation | <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging | <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming | <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |
| <input type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal | | | | | | | | | | | | |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal | | | | | | | | | | | | |
| <input type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation | | | | | | | | | | | | |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging | | | | | | | | | | | | |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming | | | | | | | | | | | | |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment | | | | | | | | | | | | |

16
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawisson Date: 6/30/2022

Wetland 1-T

16

subtotal first page

0 16

max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-3 13

max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

13

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Davison **Date:** 7/1/22

Wetland 1-0

1	1
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7	8
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	15
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

8	23
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input checked="" type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

23
subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinger, Chris Dawisson **Date:** 7/1/22
 Wetland 1-0

23
 subtotal first page

0 23
 max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 26
 max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

26

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima

Rater(s): Bella Hollinden, Chris Dawisson

Date: 7/1/22

Wetland 1-V

1	1
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7	8
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	15
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

- point source (nonstormwater)
- filling/grading
- road bed/RR track
- dredging
- other _____

8	23
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- mowing
- grazing
- clearcutting
- selective cutting
- woody debris removal
- toxic pollutants

- shrub/sapling removal
- herbaceous/aquatic bed removal
- sedimentation
- dredging
- farming
- nutrient enrichment

23
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 7/1/22

Wetland 1-V

23
subtotal first page

0 23
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 26
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

26

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davissan Date: 7/1/22

wetland 1-4

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

4	4
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

8	12
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

8	20
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|---|
| <input type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

20
subtotal this page

Site: A&P Fostoria to Lima Rater(s): Beth Hollinder, Chris Davisson Date: 7/1/2022

Wetland 1-w

20

subtotal first page

0 20

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 23

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussocks
- 1 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 1 Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

23

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fastona to Lima **Rater(s):** Beth Hollinder, Chris Davison **Date:** 7/1/22

wetland 1-x

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

9	11
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	18
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

9	27
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input checked="" type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> clearcutting	<input type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

27
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Dawisson Date: 7/1/2022

Wetland 1-X

27
subtotal first page

0 27
max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

0 28
max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

28

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima Rater(s): Beta Hollinden, Chris Dawson Date: 7/1/22

wetland 1-Y

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

12	12
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

13	25
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

9	34
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- mowing
- grazing
- clearcutting
- selective cutting
- woody debris removal
- toxic pollutants
- shrub/sapling removal
- herbaceous/aquatic bed removal
- sedimentation
- dredging
- farming
- nutrient enrichment

34

subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 7/1/2022

Wetland 1-4

34
subtotal first page

0 34
max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 32
max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

32

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima

Rater(s): Beth Hollinden, Chris Davison

Date: 7/1/22

wetland 1-2

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

4	6
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

9	15
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

9	24
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

24

subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Dawisson **Date:** 7/1/2022

Wetland 1-Z

24

subtotal first page

0	24
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max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2	22
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max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

22

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima

Rater(s): Beth Hollinden, Chris Davison

Date: 7/1/22

wetland 2-AA

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7	9
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

14	23
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

8	31
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|---|
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
|--|---|

31
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinder, Chris Davisson Date: 7/1/2022

Wetland 1-AA

31
subtotal first page

0 31
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-1 30
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersions.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

30

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Davisson **Date:** 7/1/22

Wetland 1-AB

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

8	10
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

20	30
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.

<input checked="" type="checkbox"/> None or none apparent (12)	<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input checked="" type="checkbox"/> Recovered (7)	<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> Recovering (3)	<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> Recent or no recovery (1)	<input type="checkbox"/> weir	<input type="checkbox"/> dredging
	<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

9	39
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.

<input type="checkbox"/> None or none apparent (9)	<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input checked="" type="checkbox"/> Recovered (6)	<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> Recovering (3)	<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> Recent or no recovery (1)	<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
	<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
	<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

39
subtotal this page

Site: AEP Fostoria to Lima	Rater(s): Beth Hollinden, Chris Dawisson	Date: 7/1/2022
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Wetland 1-AB

39

subtotal first page

0	39
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max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-1	38
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max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion. Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography. Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussocks
- 0 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 1 Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

38

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima

Rater(s): Beth Hollinder, Chris Dawson

Date: 7/2/22

Wetland 1 - AC

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7	9
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

15	24
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

10	34
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|---|
| <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input checked="" type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input checked="" type="checkbox"/> clearcutting | <input type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input checked="" type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

34
subtotal this page

Site: <u>AEP Fostoria to Lima</u>	Rater(s): <u>Beth Hollinder, Chris Davisson</u>	Date: <u>7/2/22</u> <u>Wetland 1-AC</u>
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34

subtotal first page

0	34
max 10 pts	subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

0	34
max 20 pts	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

34

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima

Rater(s): Beth Hollinger, Chris Dawson

Date: 7/2/2022

Wetland 1-AD

1	1
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

2	3
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

14	17
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

<ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input checked="" type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) 	<p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> ditch</td> <td><input type="checkbox"/> point source (nonstormwater)</td> </tr> <tr> <td><input type="checkbox"/> tile</td> <td><input checked="" type="checkbox"/> filling/grading</td> </tr> <tr> <td><input type="checkbox"/> dike</td> <td><input checked="" type="checkbox"/> road bed/RR track</td> </tr> <tr> <td><input type="checkbox"/> weir</td> <td><input type="checkbox"/> dredging</td> </tr> <tr> <td><input checked="" type="checkbox"/> stormwater input</td> <td><input type="checkbox"/> other _____</td> </tr> </table>	<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)	<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading	<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track	<input type="checkbox"/> weir	<input type="checkbox"/> dredging	<input checked="" type="checkbox"/> stormwater input	<input type="checkbox"/> other _____
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)										
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading										
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track										
<input type="checkbox"/> weir	<input type="checkbox"/> dredging										
<input checked="" type="checkbox"/> stormwater input	<input type="checkbox"/> other _____										

10	27
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.

<ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) 	<p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> mowing</td> <td><input type="checkbox"/> shrub/sapling removal</td> </tr> <tr> <td><input type="checkbox"/> grazing</td> <td><input type="checkbox"/> herbaceous/aquatic bed removal</td> </tr> <tr> <td><input type="checkbox"/> clearcutting</td> <td><input checked="" type="checkbox"/> sedimentation</td> </tr> <tr> <td><input type="checkbox"/> selective cutting</td> <td><input type="checkbox"/> dredging</td> </tr> <tr> <td><input type="checkbox"/> woody debris removal</td> <td><input type="checkbox"/> farming</td> </tr> <tr> <td><input type="checkbox"/> toxic pollutants</td> <td><input type="checkbox"/> nutrient enrichment</td> </tr> </table>	<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal	<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal	<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation	<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging	<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming	<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment
<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal												
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal												
<input type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation												
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging												
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming												
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment												

27
subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Dawson **Date:** 7/2/2022

Wetland I-AD

27

subtotal first page

0	27
max 10 pts	subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3	30
max 20 pts	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

30

End of Quantitative Rating. Complete Categorization Worksheets.

Site: ASP Fostoria to Lima

Rater(s): Beth Hollinden, Chris Davissan

Date: 7/2/2022

Wetland 1-AE

2 **2**

max 6 pts subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

12 **14**

max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

14 **28**

max 30 pts subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed

- | | |
|---|---|
| <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) |
| <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading |
| <input type="checkbox"/> dike | <input type="checkbox"/> road bed/RR track |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> other _____ |

8 **36**

max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|---|
| <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

36

subtotal this page

Site: A&P Fostoria to Lima Rater(s): Beth Hollinden, CW's Dawissen Date: 7/2/2022

Wetland 1-AE

36

subtotal first page

0 36

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-1 35

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

35

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Daviesson **Date:** 7/2/2022

Wetland I-AF

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

12	14
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

15	29
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input |
|---|---|

9	38
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | | | |
|---|---|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment </td> </tr> </table> | <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
| <ul style="list-style-type: none"> <input type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment | | |

38
subtotal this page

Site: A&P Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 7/2/2022

Wetland 1-AF

38
subtotal first page

0 38
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

0 38
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- 1 Emergent
- Shrub
- 1 Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussucks
- 1 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 0 Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

38

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima

Rater(s): Beth Hollinden, Cindi Davison

Date: 7/13/22

Wetland 1-AG

0	0
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7	7
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	14
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

8	22
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- | | |
|--|---|
| <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal |
| <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |

22
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinder, Chris Davisson Date: 7/13/22

Wetland I-AG

22
subtotal first page

0 22
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

2 24
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

24

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Dawisson **Date:** 7/13/22

Wetland 1-AH

3	3
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

7	10
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

15	25
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input <input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____ |
|---|--|

9	34
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
|--|--|

34
subtotal this page

Site: A&P Fostoria to Lima Rater(s): Beth Hollinden, Curtis Davisson Date: 7/3/22

Wetland 1-AH

34

subtotal first page

0 34

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

4 38

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

38

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davison Date: 7/4/22

wetland 1-AI

1	1
max 6 pts	subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

3	4
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	11
max 30 pts	subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input checked="" type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____ </td> </tr> </table> | <ul style="list-style-type: none"> <input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input | <ul style="list-style-type: none"> <input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input checked="" type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____ |
| <ul style="list-style-type: none"> <input type="checkbox"/> ditch <input type="checkbox"/> tile <input type="checkbox"/> dike <input type="checkbox"/> weir <input type="checkbox"/> stormwater input | <ul style="list-style-type: none"> <input type="checkbox"/> point source (nonstormwater) <input checked="" type="checkbox"/> filling/grading <input checked="" type="checkbox"/> road bed/RR track <input type="checkbox"/> dredging <input type="checkbox"/> other _____ | | |

7	18
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment </td> </tr> </table> | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment |
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> mowing <input type="checkbox"/> grazing <input checked="" type="checkbox"/> clearcutting <input type="checkbox"/> selective cutting <input type="checkbox"/> woody debris removal <input type="checkbox"/> toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> shrub/sapling removal <input type="checkbox"/> herbaceous/aquatic bed removal <input checked="" type="checkbox"/> sedimentation <input type="checkbox"/> dredging <input type="checkbox"/> farming <input type="checkbox"/> nutrient enrichment | | |

18
subtotal this page

Site: AEP Fostoria to Lima **Rater(s):** Beth Hollinden, Chris Davison **Date:** 7/4/22

Wetland 1-AI

18

subtotal first page

0 18

max 10 pts.

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

0 18

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

18

End of Quantitative Rating. Complete Categorization Worksheets.

Site: A&P Fostoria to Lima **Rater(s):** Beth Hollinder, Chris Davisson **Date:** 7/14/22

Wetland 1-AJ

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1	3
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

9	12
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input checked="" type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input checked="" type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

7	19
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input checked="" type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

19
subtotal this page

Site: <u>AEP Fostoria to Lima</u>	Rater(s): <u>Beth Hollinden, Chris Davissan</u>	Date: <u>7/4/22</u> <u>Wetland 1-AJ</u>
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19

subtotal first page

0	19
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max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2	17
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max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Beth Hollinder, Chris Davisson Date: 7/14/22

Wetland 1-AK

2 **2**
max 6 pts subtotal

Metric 1. Wetland Area (size).

- Select one size class and assign score.
- >50 acres (>20.2ha) (6 pts)
 - 25 to <50 acres (10.1 to <20.2ha) (5 pts)
 - 10 to <25 acres (4 to <10.1ha) (4 pts)
 - 3 to <10 acres (1.2 to <4ha) (3 pts)
 - 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
 - 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
 - <0.1 acres (0.04ha) (0 pts)

1 **3**
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
 - NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Intensity of surrounding land use. Select one or double check and average.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

9 **12**
max 30 pts subtotal

Metric 3. Hydrology.

- 3a. Sources of Water. Score all that apply.
- High pH groundwater (5)
 - Other groundwater (3)
 - Precipitation (1)
 - Seasonal/Intermittent surface water (3)
 - Perennial surface water (lake or stream) (5)
- 3b. Connectivity. Score all that apply.
- 100 year floodplain (1)
 - Between stream/lake and other human use (1)
 - Part of wetland/upland (e.g. forest), complex (1)
 - Part of riparian or upland corridor (1)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3)
 - 0.4 to 0.7m (15.7 to 27.6in) (2)
 - <0.4m (<15.7in) (1)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4)
 - Regularly inundated/saturated (3)
 - Seasonally inundated (2)
 - Seasonally saturated in upper 30cm (12in) (1)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | | | | | | | | | | | |
|---|---|--------------------------------|---|-------------------------------|---|-------------------------------|---|-------------------------------|-----------------------------------|---|--------------------------------------|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12) <input type="checkbox"/> Recovered (7) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> ditch</td> <td style="width: 50%; border: none;"><input type="checkbox"/> point source (nonstormwater)</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> tile</td> <td style="border: none;"><input checked="" type="checkbox"/> filling/grading</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> dike</td> <td style="border: none;"><input checked="" type="checkbox"/> road bed/RR track</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> weir</td> <td style="border: none;"><input type="checkbox"/> dredging</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> stormwater input</td> <td style="border: none;"><input type="checkbox"/> other _____</td> </tr> </table> | <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) | <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading | <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track | <input type="checkbox"/> weir | <input type="checkbox"/> dredging | <input type="checkbox"/> stormwater input | <input type="checkbox"/> other _____ |
| <input type="checkbox"/> ditch | <input type="checkbox"/> point source (nonstormwater) | | | | | | | | | | |
| <input type="checkbox"/> tile | <input checked="" type="checkbox"/> filling/grading | | | | | | | | | | |
| <input type="checkbox"/> dike | <input checked="" type="checkbox"/> road bed/RR track | | | | | | | | | | |
| <input type="checkbox"/> weir | <input type="checkbox"/> dredging | | | | | | | | | | |
| <input type="checkbox"/> stormwater input | <input type="checkbox"/> other _____ | | | | | | | | | | |

7 **19**
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

- 4a. Substrate disturbance. Score one or double check and average.
- None or none apparent (4)
 - Recovered (3)
 - Recovering (2)
 - Recent or no recovery (1)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7)
 - Very good (6)
 - Good (5)
 - Moderately good (4)
 - Fair (3)
 - Poor to fair (2)
 - Poor (1)
- 4c. Habitat alteration. Score one or double check and average.
- | | | | | | | | | | | | | | |
|--|---|--|--|----------------------------------|---|--|---|--|-----------------------------------|---|----------------------------------|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9) <input type="checkbox"/> Recovered (6) <input checked="" type="checkbox"/> Recovering (3) <input type="checkbox"/> Recent or no recovery (1) | <p>Check all disturbances observed</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> mowing</td> <td style="width: 50%; border: none;"><input type="checkbox"/> shrub/sapling removal</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> grazing</td> <td style="border: none;"><input type="checkbox"/> herbaceous/aquatic bed removal</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> clearcutting</td> <td style="border: none;"><input checked="" type="checkbox"/> sedimentation</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> selective cutting</td> <td style="border: none;"><input type="checkbox"/> dredging</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> woody debris removal</td> <td style="border: none;"><input type="checkbox"/> farming</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> toxic pollutants</td> <td style="border: none;"><input type="checkbox"/> nutrient enrichment</td> </tr> </table> | <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal | <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal | <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation | <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging | <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming | <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment |
| <input checked="" type="checkbox"/> mowing | <input type="checkbox"/> shrub/sapling removal | | | | | | | | | | | | |
| <input type="checkbox"/> grazing | <input type="checkbox"/> herbaceous/aquatic bed removal | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> clearcutting | <input checked="" type="checkbox"/> sedimentation | | | | | | | | | | | | |
| <input type="checkbox"/> selective cutting | <input type="checkbox"/> dredging | | | | | | | | | | | | |
| <input type="checkbox"/> woody debris removal | <input type="checkbox"/> farming | | | | | | | | | | | | |
| <input type="checkbox"/> toxic pollutants | <input type="checkbox"/> nutrient enrichment | | | | | | | | | | | | |

19
subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinden, Chris Davisson Date: 7/4/22

Wetland I-AK

19
subtotal first page

0 19
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2 17
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima Rater(s): Beth Hollinger, Chris Davison Date: 7/5/22

Wetland 1-AL

2 **2**
max 6 pts subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

1 **3**
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

10 **13**
max 30 pts subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

7 **20**
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- mowing
- grazing
- clearcutting
- selective cutting
- woody debris removal
- toxic pollutants

- shrub/sapling removal
- herbaceous/aquatic bed removal
- sedimentation
- dredging
- farming
- nutrient enrichment

20
subtotal this page

Site: xEP Fostoria to Lima **Rater(s):** Beth Hollinder, Chris Davison **Date:** 7/5/22

Wetland 1-AL

20

subtotal first page

0	20
max 10 pts.	subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2	18
max 20 pts.	subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussocks
- 0 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 1 Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

18

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Fostoria to Lima

Rater(s): Beth Hollinder, Chris Davison

Date: 7/5/22

wetland 1-AM

2	2
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max 6 pts. subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7	9
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max 14 pts. subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

7	16
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max 30 pts. subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

8	24
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max 20 pts. subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- mowing
- grazing
- clearcutting
- selective cutting
- woody debris removal
- toxic pollutants

- shrub/sapling removal
- herbaceous/aquatic bed removal
- sedimentation
- dredging
- farming
- nutrient enrichment

24

subtotal this page

Site: AEP Fostoria to Lima Rater(s): Beth Hollinder, Chris Davison Date: 7/5/22

Wetland 1-AM

24
subtotal first page

0 24
max 10 pts. subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

4 28
max 20 pts. subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent 2
- Shrub
- Forest 1
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

28

End of Quantitative Rating. Complete Categorization Worksheets.

Site: AEP Pastoria to Lima Rater(s): Beth Hollinder, Chris Davison Date: 7/5/22

Wetland I-AN

2 2
max 6 pts subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

7 9
max 14 pts subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

11 20
max 30 pts subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- ditch
- tile
- dike
- weir
- stormwater input

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

9 29
max 20 pts subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed

- mowing
- grazing
- clearcutting
- selective cutting
- woody debris removal
- toxic pollutants
- shrub/sapling removal
- herbaceous/aquatic bed removal
- sedimentation
- dredging
- farming
- nutrient enrichment

29
subtotal this page

Site: A&P Fostoria to Lima Rater(s): Beth Hollinder, Chris Davisson Date: 7/5/22

Wetland 1-AN

29
subtotal first page

0 29
max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

3 32
max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussucks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

32

End of Quantitative Rating. Complete Categorization Worksheets.

Modified Class II PTLW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

36

SITE NAME/LOCATION AEP Fostoria to Lima - Stream 1-002 (UNT to S. Br. Portage River)
 SITE NUMBER 11 RIVER BASIN S.B. Portage River RIVER CODE 1 DRAINAGE AREA (mi²) 1.71
 LENGTH OF STREAM REACH (ft) 200 LAT 41.137592 LONG -83.470923 RIVER MILE 2.9
 DATE 6/29/22 SCORER BH & CD COMMENTS Drainage area of 1.71 mi². HHEI was chosen due to intermittent flow regime

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

<p>1. SUBSTRATE (Estimate percent of every type present). Check <u>ONLY two</u> predominant substrate <u>TYPE</u> boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B</p>		<p>HHEI Metric Points Substrate Max = 40</p> <p style="text-align: center;">1</p> <p>A + B</p>																											
<table border="0"> <thead> <tr> <th>TYPE</th> <th>PERCENT</th> <th>TYPE</th> <th>PERCENT</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> BLD R SLABS [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> SILT [3 pt]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> BOULDER (>256 mm) [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> BEDROCK [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> FINE DETRITUS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> COBBLE (65-256 mm) [12 pts]</td> <td>_____</td> <td><input type="checkbox"/> CLAY or HARDPAN [0 pt]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]</td> <td>_____</td> <td><input checked="" type="checkbox"/> MUCK [0 pts]</td> <td><u>100%</u></td> </tr> <tr> <td><input type="checkbox"/> SAND (<2 mm) [6 pts]</td> <td>_____</td> <td><input type="checkbox"/> ARTIFICIAL [3 pts]</td> <td>_____</td> </tr> </tbody> </table>	TYPE		PERCENT	TYPE	PERCENT	<input type="checkbox"/> BLD R SLABS [16 pts]	_____	<input type="checkbox"/> SILT [3 pt]	_____	<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____	<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____	<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> CLAY or HARDPAN [0 pt]	_____	<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input checked="" type="checkbox"/> MUCK [0 pts]	<u>100%</u>	<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____
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This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: South Branch Portage River Distance from Evaluated Stream 2.9 miles
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Fostoria NRCS Soil Map Page: / NRCS Soil Map Stream Order: /
County: Hancock Township/City: Washington Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/26/22 Quantity: 0.12"

Photo-documentation Notes: Upstream, downstream, & substrate photos recorded.

Elevated Turbidity? (Y/N): N Canopy (% open): 100%

Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____

Additional comments/description of pollution impacts: _____

BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____

Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____

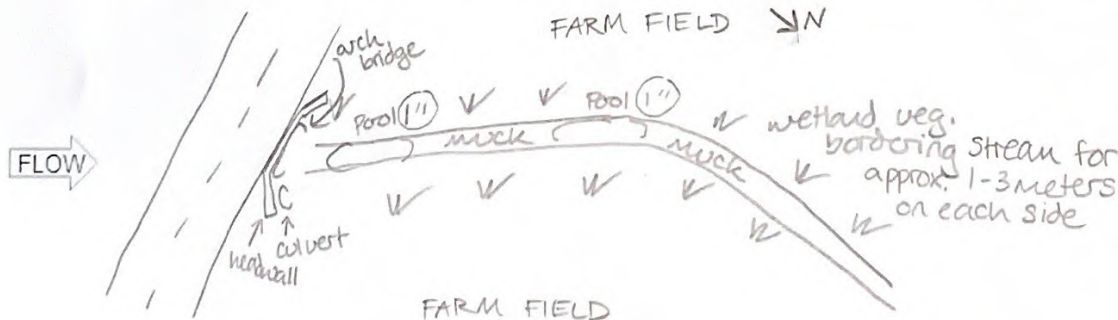
Salamanders Observed? (Y/N) N Species observed (if known): _____

Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____

Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Modified CLASS II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

48

SITE NAME/LOCATION ASP Fostoria to Lima - Stream 1 - 003 (UNT to S.Br. Portage River)

SITE NUMBER RIVER BASIN S.B. Portage Riv RIVER CODE DRAINAGE AREA (m²) 3.91 mi

LENGTH OF STREAM REACH (ft) 270 LAT 41.125093 LONG -83.517813 RIVER MILE 0.3

DATE 6/29/22 SCORER BA & CD COMMENTS Although drainage area > 1 mi², HHEI was chosen due to intermittent flow regime.

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

<p>1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B</p>				<p>HHEI Metric Points</p> <p>Substrate Max = 40</p> <p>13</p> <p>A + B</p>																										
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This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream.

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: South Branch Portage River Distance from Evaluated Stream 0.3 miles
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Bloondale NRCS Soil Map Page: 1 NRCS Soil Map Stream Order: 1
County: Hancock Township/City: Washington Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/26/22 Quantity: 0.12"
Photo-documentation Notes: Upstream, downstream, and substrate photos recorded.
Elevated Turbidity? (Y/N): N Canopy (% open): 100%
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____
Additional comments/description of pollution impacts: _____

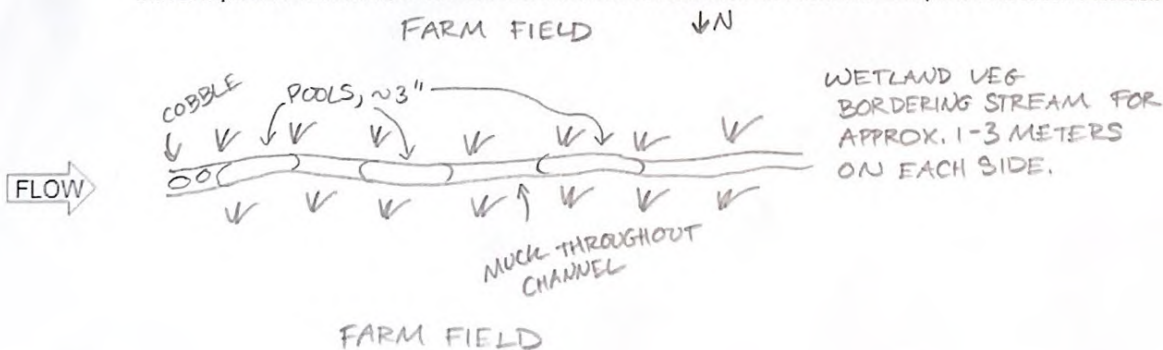
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Modified Class II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

31

SITE NAME/LOCATION ASP Fostoria to Lima - Stream 1-005 (UNT to S.Br. Portage River)
 SITE NUMBER RIVER BASIN S.Br. Portage River RIVER CODE DRAINAGE AREA (m²) 0.8
 LENGTH OF STREAM REACH (ft) 200 LAT 41.117808 LONG -83.540298 RIVER MILE 3.2
 DATE 6/29/22 SCORER BH & CD COMMENTS

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

<p>1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B</p> <table border="0"> <tr> <th>TYPE</th> <th>PERCENT</th> <th>TYPE</th> <th>PERCENT</th> </tr> <tr> <td><input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> <input type="checkbox"/> SILT [3 pt]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]</td> <td>_____</td> <td><input checked="" type="checkbox"/> <input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]</td> <td><u>100%</u></td> </tr> <tr> <td><input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]</td> <td>_____</td> <td><input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]</td> <td>_____</td> <td><input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]</td> <td>_____</td> </tr> </table> <p>Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____ (A) <input type="checkbox"/> (B) <input type="checkbox"/></p> <p>SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: <input type="checkbox"/> TOTAL NUMBER OF SUBSTRATE TYPES: <input type="checkbox"/></p>		TYPE	PERCENT	TYPE	PERCENT	<input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> SILT [3 pt]	_____	<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	<u>100%</u>	<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	_____	<p>HHEI Metric Points</p> <p>Substrate Max = 40</p> <p><input type="checkbox"/> 1</p> <p>A + B</p>
TYPE	PERCENT	TYPE	PERCENT																											
<input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> SILT [3 pt]	_____																											
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<p>2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):</p> <table border="0"> <tr> <td><input type="checkbox"/> > 30 centimeters [20 pts]</td> <td><input checked="" type="checkbox"/> 5 cm - 10 cm [15 pts]</td> </tr> <tr> <td><input type="checkbox"/> > 22.5 - 30 cm [30 pts]</td> <td><input type="checkbox"/> < 5 cm [5 pts]</td> </tr> <tr> <td><input type="checkbox"/> > 10 - 22.5 cm [25 pts]</td> <td><input type="checkbox"/> NO WATER OR MOIST CHANNEL [0pts]</td> </tr> </table> <p>COMMENTS <u>3"</u> MAXIMUM POOL DEPTH (centimeters): <input type="checkbox"/> <u>7.6</u></p>		<input type="checkbox"/> > 30 centimeters [20 pts]	<input checked="" type="checkbox"/> 5 cm - 10 cm [15 pts]	<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]	<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0pts]	<p>Pool Depth Max = 30</p> <p><input type="checkbox"/> 15</p>																						
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<p>3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):</p> <table border="0"> <tr> <td><input type="checkbox"/> > 4.0 meters (> 13') [30 pts]</td> <td><input checked="" type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]</td> </tr> <tr> <td><input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]</td> <td><input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]</td> </tr> <tr> <td><input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]</td> <td></td> </tr> </table> <p>COMMENTS <u>4'</u> AVERAGE BANKFULL WIDTH (meters) <input type="checkbox"/> <u>1.2</u></p>		<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input checked="" type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]	<input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]		<p>Bankfull Width Max = 30</p> <p><input type="checkbox"/> 15</p>																						
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This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)			
L	R	L	R	L	R
<input type="checkbox"/> <input type="checkbox"/>	Wide >10m	<input type="checkbox"/> <input type="checkbox"/>	Mature Forest, Wetland	<input type="checkbox"/> <input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/> <input type="checkbox"/>	Moderate 5-10m	<input type="checkbox"/> <input type="checkbox"/>	Immature Forest, Shrub or Old Field	<input type="checkbox"/> <input type="checkbox"/>	Urban or Industrial
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Narrow <5m	<input type="checkbox"/> <input type="checkbox"/>	Residential, Park, New Field	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Open Pasture, Row Crop
<input type="checkbox"/> <input type="checkbox"/>	None	<input type="checkbox"/> <input type="checkbox"/>	Fenced Pasture	<input type="checkbox"/> <input type="checkbox"/>	Mining or Construction

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: South Branch Portage River Distance from Evaluated Stream 3.2 miles
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Arcadia NRCS Soil Map Page: / NRCS Soil Map Stream Order: /
County: Hancock Township/City: Cass Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/26/22 Quantity: 0.12"
Photo-documentation Notes: Upstream, downstream, and substrate photos recorded.
Elevated Turbidity? (Y/N): N Canopy (% open): 100%
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____
Additional comments/description of pollution impacts: _____

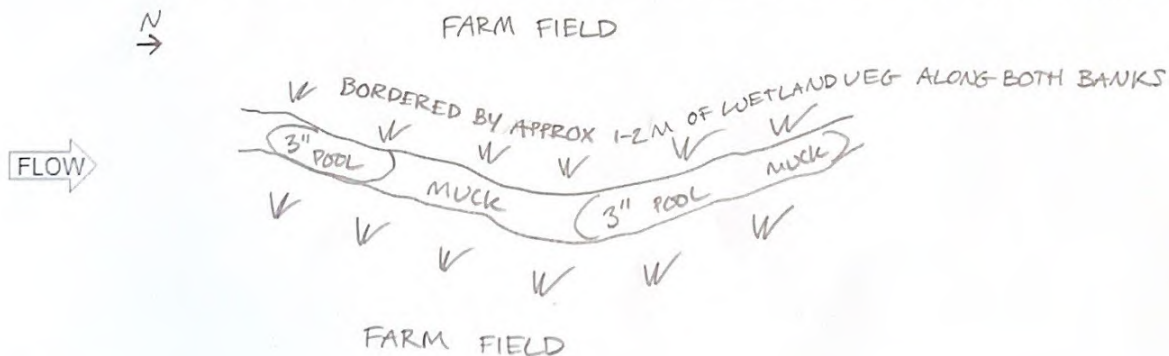
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Modified Class II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) **55**

SITE NAME/LOCATION A&P Fostoria to Lima - Stream 1-007 (UNT to Rocky Ford)
 SITE NUMBER RIVER BASIN Rocky Ford RIVER CODE DRAINAGE AREA (m²) 0.5
 LENGTH OF STREAM REACH (ft) 470 LAT 41.10721 LONG -83.574589 RIVER MILE 1.3
 DATE 6/30/12 SCORER BH & CD COMMENTS

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

<p>1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B</p> <table border="0"> <tr> <th>TYPE</th> <th>PERCENT</th> <th>TYPE</th> <th>PERCENT</th> </tr> <tr> <td><input type="checkbox"/> BLDR SLABS [16 pts]</td> <td>_____</td> <td><input checked="" type="checkbox"/> SILT [3 pt]</td> <td><u>20%</u></td> </tr> <tr> <td><input type="checkbox"/> BOULDER (>256 mm) [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> BEDROCK [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> FINE DETRITUS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> COBBLE (65-256 mm) [12 pts]</td> <td>_____</td> <td><input type="checkbox"/> CLAY or HARDPAN [0 pt]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]</td> <td>_____</td> <td><input checked="" type="checkbox"/> MUCK [0 pts]</td> <td><u>180%</u></td> </tr> <tr> <td><input type="checkbox"/> SAND (<2 mm) [6 pts]</td> <td>_____</td> <td><input type="checkbox"/> ARTIFICIAL [3 pts]</td> <td>_____</td> </tr> </table> <p>Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____ (A) 3 (B) 2</p> <p>SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 2</p>		TYPE	PERCENT	TYPE	PERCENT	<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pt]	<u>20%</u>	<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____	<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____	<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> CLAY or HARDPAN [0 pt]	_____	<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input checked="" type="checkbox"/> MUCK [0 pts]	<u>180%</u>	<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____	<p>HHEI Metric Points</p> <p>Substrate Max = 40</p> <p>5</p> <p>A + B</p>
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This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream.

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: Rocky Ford Distance from Evaluated Stream 1.3 miles
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Arcadia NRCS Soil Map Page: 1 NRCS Soil Map Stream Order: 1
County: Hancock Township/City: Cass Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/26/2022 Quantity: 0.12"
Photo-documentation Notes: Upstream, downstream, and substrate photos recorded.
Elevated Turbidity? (Y/N): N Canopy (% open): 100%
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____
Additional comments/description of pollution impacts: _____

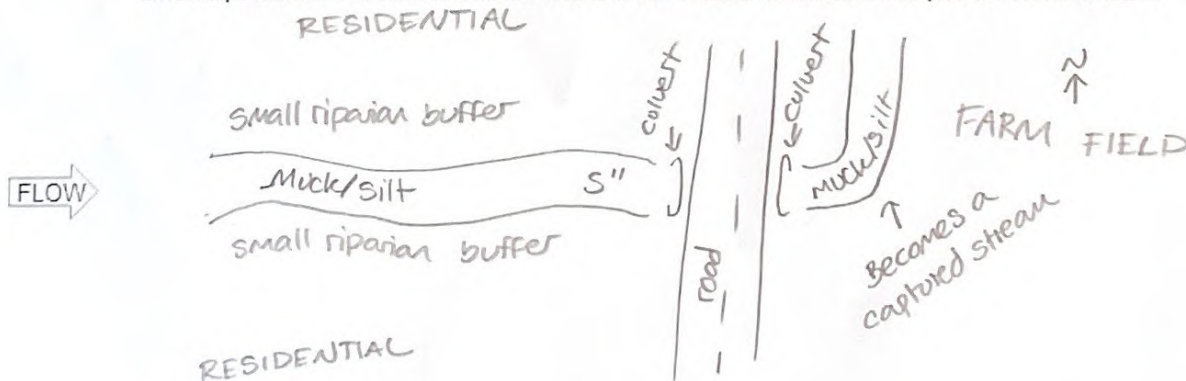
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) Y Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Stream & Location: ASP Fostoria to Lima-Stream 1-008 RM: 3 Date: 6/30/22
UNT to Rocky Ford Scorers Full Name & Affiliation: Beth Hollinder, Chris Dawison, ESI
River Code: STORET #: Lat./ Long.: 41.098914 183.602086 Office verified location

1) SUBSTRATE Check ONLY Two substrate TYPE BOXES, estimate % or note every type present. Check ONE (Or 2 & average)
BEST TYPES: BLDR/SLABS [10], BOULDER [9], COBBLE [8], GRAVEL [7], SAND [6], BEDROCK [5]
OTHER TYPES: HARDPAN [4], DETRITUS [3], MUCK [2], SILT [2], ARTIFICIAL [0]
ORIGIN: LIMESTONE [1], TILLS [1], WETLANDS [0], HARDPAN [0], SANDSTONE [0], RIP/RAP [0], LACUSTURINE [0], SHALE [-1], COAL FINES [-2]
QUALITY: HEAVY [-2], MODERATE [-1], NORMAL [0], FREE [1], EXTENSIVE [-2], MODERATE [-1], NORMAL [0], NONE [1]
NUMBER OF BEST TYPES: 3 or less [0]
Comments

2) INSTREAM COVER Indicate presence 0 to 3: 0-Absent, 1-Very small amounts or if more common of marginal quality, 2-Moderate amounts, but not of highest quality or in small amounts of highest quality, 3-Highest quality in moderate or greater amounts
UNDERCUT BANKS [1], OVERHANGING VEGETATION [1], SHALLOWS (IN SLOW WATER) [1], ROOTMATS [1]
POOLS > 70cm [2], ROOTWADS [1], BOULDERS [1], LOGS OR WOODY DEBRIS [1]
OXBOWS, BACKWATERS [1], AQUATIC MACROPHYTES [1]
AMOUNT: EXTENSIVE >75% [11], MODERATE 25-75% [7], SPARSE 5-<25% [3], NEARLY ABSENT <5% [1]
Comments

3) CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)
SINUOSITY: HIGH [4], MODERATE [3], LOW [2], NONE [1]
DEVELOPMENT: EXCELLENT [7], GOOD [5], FAIR [3], POOR [1]
CHANNELIZATION: NONE [6], RECOVERED [4], RECOVERING [3], RECENT OR NO RECOVERY [1]
STABILITY: HIGH [3], MODERATE [2], LOW [1]
Comments

4) BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)
EROSION: NONE/LITTLE [3], MODERATE [2], HEAVY/SEVERE [1]
RIPARIAN WIDTH: WIDE > 50m [4], MODERATE 10-50m [3], NARROW 5-10m [2], VERY NARROW < 5m [1], NONE [0]
FLOOD PLAIN QUALITY: FOREST, SWAMP [3], SHRUB OR OLD FIELD [2], RESIDENTIAL, PARK, NEW FIELD [1], FENCED PASTURE [1], OPEN PASTURE, ROWCROP [0]
CONSERVATION TILLAGE [1], URBAN OR INDUSTRIAL [0], MINING / CONSTRUCTION [0]
Comments

5) POOL / GLIDE AND RIFFLE / RUN QUALITY
MAXIMUM DEPTH: > 1m [6], 0.7-<1m [4], 0.4-<0.7m [2], 0.2-<0.4m [1], < 0.2m [0]
CHANNEL WIDTH: POOL WIDTH > RIFFLE WIDTH [2], POOL WIDTH = RIFFLE WIDTH [1], POOL WIDTH < RIFFLE WIDTH [0]
CURRENT VELOCITY: TORRENTIAL [-1], VERY FAST [1], FAST [1], MODERATE [1], SLOW [1], INTERSTITIAL [-1], INTERMITTENT [-2], EDDIES [1]
Recreation Potential: Primary Contact, Secondary Contact
Comments

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:
RIFFLE DEPTH: BEST AREAS > 10cm [2], BEST AREAS 5-10cm [1], BEST AREAS < 5cm [metric=0]
RUN DEPTH: MAXIMUM > 50cm [2], MAXIMUM < 50cm [1]
RIFFLE / RUN SUBSTRATE: STABLE (e.g., Cobble, Boulder) [2], MOD. STABLE (e.g., Large Gravel) [1], UNSTABLE (e.g., Fine Gravel, Sand) [0]
RIFFLE / RUN EMBEDDEDNESS: NONE [2], LOW [1], MODERATE [0], EXTENSIVE [-1]
Comments

6) GRADIENT (11.5 ft/mi) DRAINAGE AREA (2.01 mi²)
VERY LOW - LOW [2-4], MODERATE [6-10], HIGH - VERY HIGH [10-6]
%POOL: 70 %GLIDE:
%RUN: %RIFFLE: 30
Gradient Maximum 10

Comment RE: Reach consistency/Is reach typical of stream?, Recreation/Observed - Inferred, Other/Sampling observations, Concerns, Access directions, etc.

AJ SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
 - WADE
 - L. LINE
 - OTHER
- DISTANCE**
- 0.5 Km
 - 0.2 Km
 - 0.15 Km
 - 0.12 Km
 - OTHER

STAGE

- 1st-sample pass-- 2nd
- HIGH
- UP
- NORMAL
- LOW
- DRY

CLARITY

- 1st --sample pass-- 2nd
- < 20 cm
- 20-<40 cm
- 40-70 cm
- > 70 cm/CTB
- SECCHI DEPTH

CANOPY

- > 85% - OPEN
- 55% -<85%
- 30% -<55%
- 10% -<30%
- <10% - CLOSED

CJ RECREATION

AREA DEPTH POOL: >100ft² >3ft

BJ AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

DJ MAINTENANCE

- PUBLIC / PRIVATE / BOTH / NA
- ACTIVE / HISTORIC / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- MOVING-BEDLOAD-STABLE
- ARMoured / SLUMPS
- ISLANDS / SCoured
- IMPounded / DESICCATED
- FLOOD CONTROL / DRAINAGE

EJ ISSUES

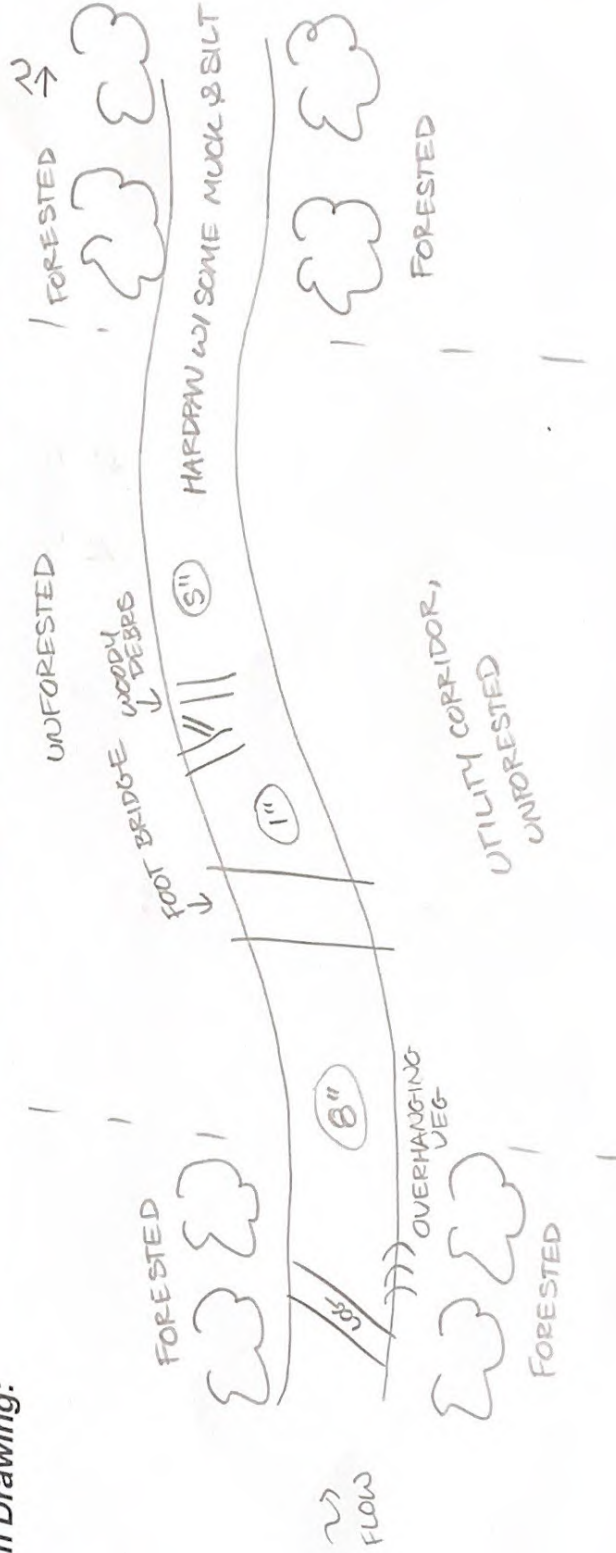
- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT&GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION / SEDIMENT
- LOGGING-IRRIGATION / COOLING
- BANK / EROSION / SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

FJ MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio

Legacy Tree:

Stream Drawing:



Stream & Location: ASP Fostoria to Lima - Stream 1-009 **RM:** 3.3 **Date:** 6/30/22
UNT to Rocky Ford **Scorers Full Name & Affiliation:** Beth Hollinden, Chris Davison, ESI
River Code: - - - **STORET #:** - - - **Lat./ Long.:** 41.096624/83.609582 (NAD 83 - decimal °) **Office verified location**

1) SUBSTRATE Check **ONLY** Two substrate **TYPE BOXES**, estimate % or note every type present. Check **ONE** (Or 2 & average)

BEST TYPES		OTHER TYPES		ORIGIN		QUALITY	
<input type="checkbox"/> BLDR/SLABS [10]	<input type="checkbox"/> POOL RIFFLE	<input type="checkbox"/> HARDPAN [4]	<input type="checkbox"/> POOL RIFFLE	<input type="checkbox"/> LIMESTONE [1]	<input type="checkbox"/> SILT	<input type="checkbox"/> HEAVY [-2]	<input type="checkbox"/> MODERATE [-1]
<input type="checkbox"/> BOULDER [9]	<input type="checkbox"/>	<input type="checkbox"/> DETRITUS [3]	<input type="checkbox"/>	<input checked="" type="checkbox"/> TILLS [1]	<input type="checkbox"/> WETLANDS [0]	<input type="checkbox"/> NORMAL [0]	<input type="checkbox"/> FREE [1]
<input type="checkbox"/> COBBLE [8]	<input type="checkbox"/>	<input type="checkbox"/> MUCK [2]	<input type="checkbox"/>	<input type="checkbox"/> HARDPAN [0]	<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> EXTENSIVE [-2]	<input checked="" type="checkbox"/> MODERATE [-1]
<input type="checkbox"/> GRAVEL [7]	<input type="checkbox"/>	<input checked="" type="checkbox"/> SILT [2]	<input type="checkbox"/>	<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> RIP/RAP [0]	<input type="checkbox"/> NORMAL [0]	<input type="checkbox"/> NONE [1]
<input checked="" type="checkbox"/> SAND [6]	<u>30</u> <u>30</u>	<input type="checkbox"/> ARTIFICIAL [0]	<u>10</u> <u>10</u>	<input type="checkbox"/> LACUSTURINE [0]	<input type="checkbox"/> SHALE [-1]	7	
<input type="checkbox"/> BEDROCK [5]				<input type="checkbox"/> COAL FINES [-2]			

NUMBER OF BEST TYPES: 4 or more [2] 3 or less [0] (Score natural substrates; ignore sludge from point-sources)

Comments

2) INSTREAM COVER Indicate presence 0 to 3: 0-Absent, 1-Very small amounts or if more common of marginal quality, 2-Moderate amounts, but not of highest quality or in small amounts of highest quality, 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools). Check **ONE** (Or 2 & average)

<u>1</u> UNDERCUT BANKS [1]	<u>1</u> POOLS > 70cm [2]	<u>1</u> OXBOWS, BACKWATERS [1]
<u>1</u> OVERHANGING VEGETATION [1]	<u>1</u> ROOTWADS [1]	<u>1</u> AQUATIC MACROPHYTES [1]
<u>1</u> SHALLOWS (IN SLOW WATER) [1]	<u>1</u> BOULDERS [1]	<u>1</u> LOGS OR WOODY DEBRIS [1]
<u>1</u> ROOTMATS [1]		

Comments

3) CHANNEL MORPHOLOGY Check **ONE** in each category (Or 2 & average)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
<input type="checkbox"/> HIGH [4]	<input type="checkbox"/> EXCELLENT [7]	<input checked="" type="checkbox"/> NONE [6]	<input type="checkbox"/> HIGH [3]
<input checked="" type="checkbox"/> MODERATE [3]	<input type="checkbox"/> GOOD [5]	<input type="checkbox"/> RECOVERED [4]	<input type="checkbox"/> MODERATE [2]
<input type="checkbox"/> LOW [2]	<input checked="" type="checkbox"/> FAIR [3]	<input type="checkbox"/> RECOVERING [3]	<input checked="" type="checkbox"/> LOW [1]
<input type="checkbox"/> NONE [1]	<input type="checkbox"/> POOR [1]	<input type="checkbox"/> RECENT OR NO RECOVERY [1]	

Comments

4) BANK EROSION AND RIPARIAN ZONE Check **ONE** in each category for **EACH BANK** (Or 2 per bank & average)

EROSION	RIPARIAN WIDTH	FLOOD PLAIN QUALITY
<input type="checkbox"/> NONE / LITTLE [3]	<input type="checkbox"/> WIDE > 50m [4]	<input type="checkbox"/> FOREST, SWAMP [3]
<input checked="" type="checkbox"/> MODERATE [2]	<input checked="" type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> SHRUB OR OLD FIELD [2]
<input type="checkbox"/> HEAVY / SEVERE [1]	<input type="checkbox"/> NARROW 5-10m [2]	<input type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]
	<input type="checkbox"/> VERY NARROW < 5m [1]	<input type="checkbox"/> FENCED PASTURE [1]
	<input type="checkbox"/> NONE [0]	<input checked="" type="checkbox"/> OPEN PASTURE, ROWCROP [0]

Comments

5) POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH	CHANNEL WIDTH	CURRENT VELOCITY	Recreation Potential Primary Contact Secondary Contact <small>(circle one and comment on back)</small>
Check ONE (ONLY)	Check ONE (Or 2 & average)	Check ALL that apply	
<input type="checkbox"/> > 1m [6]	<input checked="" type="checkbox"/> POOL WIDTH > RIFFLE WIDTH [2]	<input type="checkbox"/> TORRENTIAL [-1]	5
<input type="checkbox"/> 0.7-<1m [4]	<input type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1]	<input type="checkbox"/> VERY FAST [1]	
<input checked="" type="checkbox"/> 0.4-<0.7m [2]	<input type="checkbox"/> POOL WIDTH < RIFFLE WIDTH [0]	<input type="checkbox"/> FAST [1]	
<input type="checkbox"/> 0.2-<0.4m [1]		<input type="checkbox"/> MODERATE [1]	
<input type="checkbox"/> < 0.2m [0]		<input type="checkbox"/> INTERSTITIAL [-1]	
		<input type="checkbox"/> INTERMITTENT [-2]	
		<input type="checkbox"/> EDDIES [1]	

Comments

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check **ONE** (Or 2 & average)

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
<input type="checkbox"/> BEST AREAS > 10cm [2]	<input type="checkbox"/> MAXIMUM > 50cm [2]	<input type="checkbox"/> STABLE (e.g., Cobble, Boulder) [2]	<input type="checkbox"/> NONE [2]
<input type="checkbox"/> BEST AREAS 5-10cm [1]	<input checked="" type="checkbox"/> MAXIMUM < 50cm [1]	<input type="checkbox"/> MOD. STABLE (e.g., Large Gravel) [1]	<input type="checkbox"/> LOW [1]
<input checked="" type="checkbox"/> BEST AREAS < 5cm [metric=0]		<input checked="" type="checkbox"/> UNSTABLE (e.g., Fine Gravel, Sand) [0]	<input checked="" type="checkbox"/> MODERATE [0]
			<input type="checkbox"/> EXTENSIVE [-1]

Comments

6) GRADIENT (16.2 ft/mi) VERY LOW - LOW [2-4] %POOL: 50 %GLIDE: 0
DRAINAGE AREA (2.5 mi²) MODERATE [6-10] %RUN: 20 %RIFFLE: 30
 HIGH - VERY HIGH [10-6] **Gradient** Maximum 10

Comment RE: Reach consistency/Is reach typical of stream?, Recreation/Observed - Inferred, Other/Sampling observations, Concerns, Access directions, etc

AJ SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
 - WADE
 - L. LINE
 - OTHER
- STAGE**
- 1st - sample pass- 2nd
 - HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

CLARITY

- 1st - sample pass- 2nd
- < 20 cm
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- 40-70 cm
- > 70 cm/ CTB
- SECCHI DEPTH

CANOPY

- > 85% - OPEN
- 55% - < 85%
- 30% - < 55%
- 10% - < 30%
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CJ RECREATION

AREA DEPTH
POOL: > 100ft > 3ft

BJ AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
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- FOAM / SCUM
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- CSOs/SSOs/OUTFALLS

DJ MAINTENANCE

- PUBLIC / PRIVATE / BOTH / NA
- ACTIVE / HISTORIC / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
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EJ ISSUES

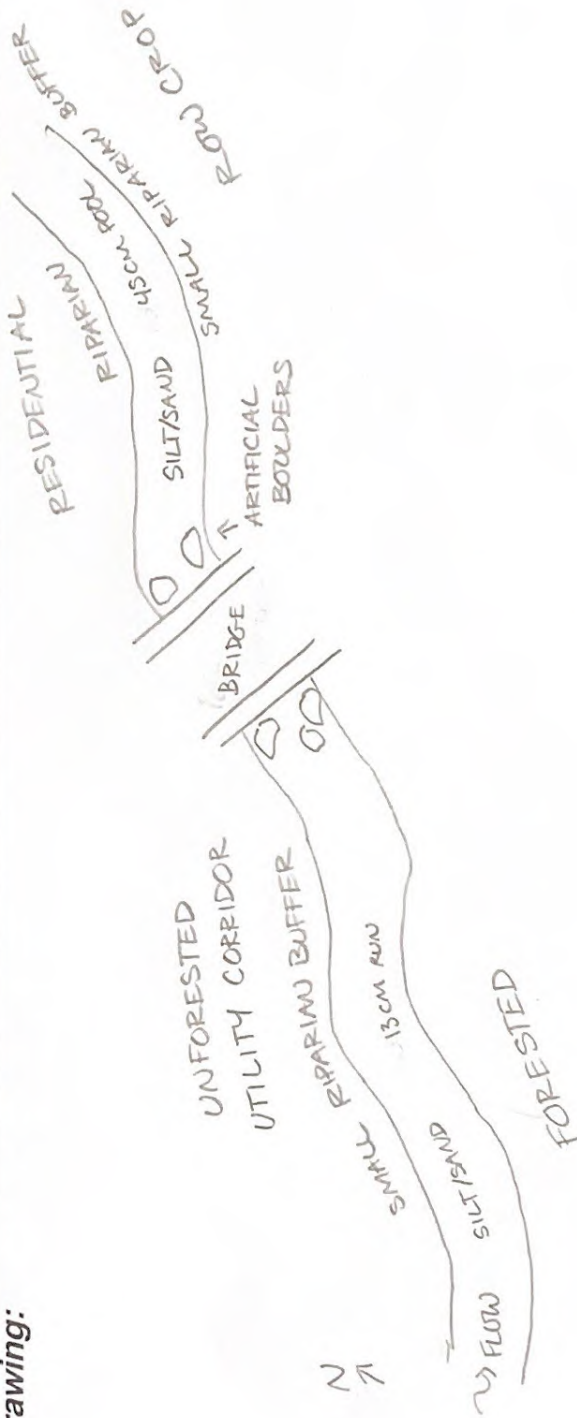
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FJ MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone \bar{x}^2 width
- entrench. ratio

Legacy Tree:

Stream Drawing:



Modified Class II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3) **47**

SITE NAME/LOCATION A&P Fostoria to Lima - Stream 1-010 (UNT to Blanchard River)
 SITE NUMBER 1 RIVER BASIN Blanchard River RIVER CODE 1 DRAINAGE AREA (MP) 0.31
 LENGTH OF STREAM REACH (ft) 330 LAT 41.072522 LONG -83.683494 RIVER MILE 1.4
 DATE 7/1/22 SCORER BHBCD COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.		HHEI Metric Points Substrate Max = 40 <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; margin: 10px auto;">7</div> A + B																											
<table border="0"> <thead> <tr> <th>TYPE</th> <th>PERCENT</th> <th>TYPE</th> <th>PERCENT</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> BLDR SLABS [16 pts]</td> <td>_____</td> <td><input checked="" type="checkbox"/> SILT [3 pts]</td> <td><u>25</u></td> </tr> <tr> <td><input type="checkbox"/> BOULDER (>256 mm) [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> BEDROCK [16 pts]</td> <td>_____</td> <td><input type="checkbox"/> FINE DETRITUS [3 pts]</td> <td>_____</td> </tr> <tr> <td><input type="checkbox"/> COBBLE (65-256 mm) [12 pts]</td> <td><u>15</u></td> <td><input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]</td> <td><u>50</u></td> </tr> <tr> <td><input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]</td> <td>_____</td> <td><input type="checkbox"/> MUCK [0 pts]</td> <td><u>10</u></td> </tr> <tr> <td><input type="checkbox"/> SAND (<2 mm) [6 pts]</td> <td>_____</td> <td><input type="checkbox"/> ARTIFICIAL [3 pts]</td> <td>_____</td> </tr> </tbody> </table>	TYPE		PERCENT	TYPE	PERCENT	<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pts]	<u>25</u>	<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	_____	<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____	<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<u>15</u>	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	<u>50</u>	<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input type="checkbox"/> MUCK [0 pts]	<u>10</u>	<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____
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Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____ (A) 3 TOTAL NUMBER OF SUBSTRATE TYPES: 4 (B)																													
2. Maximum Pool Depth (Measure the <u>maximum</u> pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):		Pool Depth Max = 30 <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; margin: 10px auto;">20</div>																											
<table border="0"> <tr> <td><input checked="" type="checkbox"/> > 30 centimeters [20 pts]</td> <td><input type="checkbox"/> 5 cm - 10 cm [15 pts]</td> </tr> <tr> <td><input type="checkbox"/> > 22.5 - 30 cm [30 pts]</td> <td><input type="checkbox"/> < 5 cm [5 pts]</td> </tr> <tr> <td><input type="checkbox"/> > 10 - 22.5 cm [25 pts]</td> <td><input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]</td> </tr> </table>			<input checked="" type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> 5 cm - 10 cm [15 pts]	<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]	<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]																					
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COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 35																													
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):		Bankfull Width Max=30 <div style="border: 1px solid black; padding: 5px; width: 40px; text-align: center; margin: 10px auto;">20</div>																											
<table border="0"> <tr> <td><input type="checkbox"/> > 4.0 meters (> 13') [30 pts]</td> <td><input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]</td> </tr> <tr> <td><input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]</td> <td><input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]</td> </tr> <tr> <td><input checked="" type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]</td> <td></td> </tr> </table>			<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]	<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]	<input checked="" type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]																						
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COMMENTS <u>5'</u> AVERAGE BANKFULL WIDTH (meters) 1.52																													

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)			
L	R	L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

<input type="checkbox"/> Flat (0.5 ft/100 ft)	<input checked="" type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
---	--	---	---	--

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: Blanchard River Distance from Evaluated Stream 1.4 miles
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Findlay NRCS Soil Map Page: 1 NRCS Soil Map Stream Order: 1
County: Hancock County Township/City: Liberty Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/26/22 Quantity: 0.12"
Photo-documentation Notes: Upstream, downstream, & substrate photos recorded
Elevated Turbidity? (Y/N): N Canopy (% open): 10%
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____

Additional comments/description of pollution impacts: _____

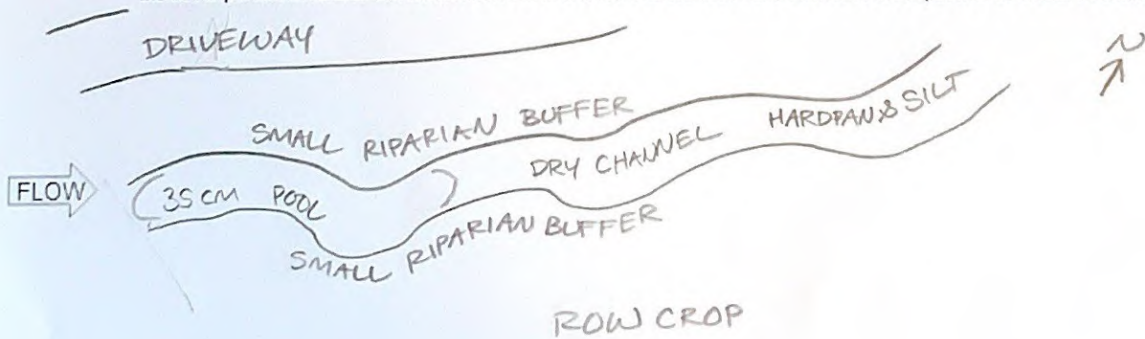
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) Y Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) Y Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Modified Class II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

4

SITE NAME/LOCATION AEP Fostoria to Lima-Stream 1-011 (INT. to Blanchard River)

SITE NUMBER 1 RIVER BASIN Blanchard River RIVER CODE 1 DRAINAGE AREA (mi²) 1.54

LENGTH OF STREAM REACH (ft) 200 LAT 41.064067 LONG -83.701330 RIVER MILE 0.8

DATE 7/1/22 SCORER BH BCD COMMENTS Although drainage area > 1mi², HHEI was chosen due to

intermittent flow regime

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B

TYPE	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input checked="" type="checkbox"/> SILT [3 pts]	<u>30</u>
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input type="checkbox"/> LEAF PACKWOODY DEBRIS [3 pts]	_____
<input type="checkbox"/> BEDROCK [16 pts]	_____	<input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	<u>50</u>
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	_____	<input type="checkbox"/> MUCK [0 pts]	<u>20</u>
<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock _____ (A) 3 (B) 3

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 3

2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box).

<input type="checkbox"/> > 30 centimeters [20 pts]	<input checked="" type="checkbox"/> 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input type="checkbox"/> NO WATER OR MOIST CHANNEL [0pts]

COMMENTS 2" MAXIMUM POOL DEPTH (centimeters): 5.1

3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input checked="" type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	

COMMENTS 6' AVERAGE BANKFULL WIDTH (meters) 1.8

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input checked="" type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: Blanchard River Distance from Evaluated Stream 0.8 mile
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Finlay NRCS Soil Map Page: 1 NRCS Soil Map Stream Order: 1
County: Liberty Township/City: Liberty Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 6/26/22 Quantity: 0.12"
Photo-documentation Notes: Upstream, downstream, & substrate photos recorded.
Elevated Turbidity? (Y/N): N Canopy (% open): 80
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____

Additional comments/description of pollution impacts: _____

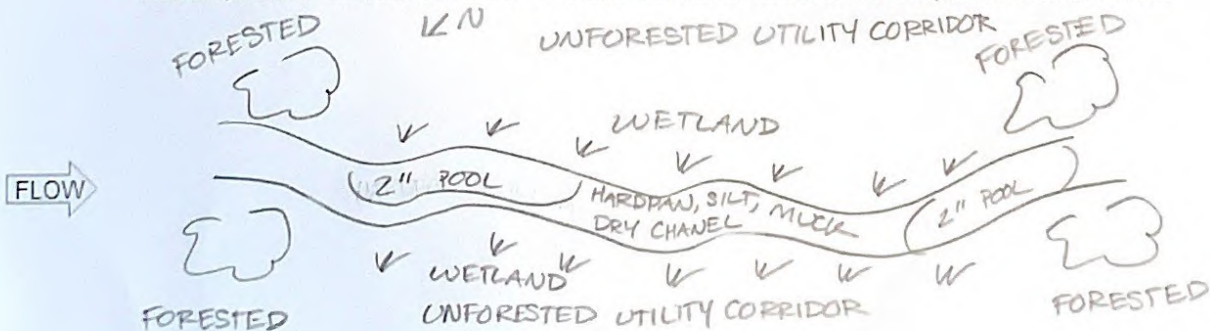
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) Y Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Stream & Location: AEP Fostoria to Lima - Shican 1-012 RM: 0.7 Date: 7/1/22

UNT to Blanchard River Scorers Full Name & Affiliation: Beth Hollindel, Chris Davisson, ESI

River Code: STORET #: Lat./ Long.: 18 Office verified location

1] SUBSTRATE Check ONLY Two substrate TYPE BOXES, estimate % or note every type present. Check ONE (Or 2 & average). BEST TYPES: BLDR /SLABS [10], BOULDER [9], COBBLE [8], GRAVEL [7], SAND [6], BEDROCK [5]. OTHER TYPES: HARDPAN [4], DETRITUS [3], MUCK [2], SILT [2], ARTIFICIAL [0]. ORIGIN: LIMESTONE [1], TILLS [1], WETLANDS [0], HARDPAN [0], SANDSTONE [0], RIP/RAP [0], LACUSTURINE [0], SHALE [-1], COAL FINES [-2]. QUALITY: HEAVY [-2], MODERATE [-1], NORMAL [0], FREE [1], EXTENSIVE [-2], MODERATE [-1], NORMAL [0], NONE [1]. Substrate Maximum 20

2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent, 1-Very small amounts or if more common of marginal quality, 2-Moderate amounts, but not of highest quality or in small amounts of highest quality, 3-Highest quality in moderate or greater amounts. AMOUNT: EXTENSIVE >75% [11], MODERATE 25-75% [7], SPARSE 5-<25% [3], NEARLY ABSENT <5% [1]. UNDERCUT BANKS [1], OVERHANGING VEGETATION [1], SHALLOWS (IN SLOW WATER) [1], ROOTMATS [1]. POOLS > 70cm [2], ROOTWADS [1], BOULDERS [1]. OXBOWS, BACKWATERS [1], AQUATIC MACROPHYTES [1], LOGS OR WOODY DEBRIS [1]. Cover Maximum 20

3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average). SINUOSITY: HIGH [4], MODERATE [3], LOW [2], NONE [1]. DEVELOPMENT: EXCELLENT [7], GOOD [5], FAIR [3], POOR [1]. CHANNELIZATION: NONE [6], RECOVERED [4], RECOVERING [3], RECENT OR NO RECOVERY [1]. STABILITY: HIGH [3], MODERATE [2], LOW [1]. Channel Maximum 20

4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average). River right looking downstream. EROSION: NONE / LITTLE [3], MODERATE [2], HEAVY / SEVERE [1]. RIPARIAN WIDTH: WIDE > 50m [4], MODERATE 10-50m [3], NARROW 5-10m [2], VERY NARROW < 5m [1], NONE [0]. FLOOD PLAIN QUALITY: FOREST, SWAMP [3], SHRUB OR OLD FIELD [2], RESIDENTIAL, PARK, NEW FIELD [1], FENCED PASTURE [1], OPEN PASTURE, ROWCROP [0]. CONSERVATION TILLAGE [1], URBAN OR INDUSTRIAL [0], MINING / CONSTRUCTION [0]. Riparian Maximum 10

5] POOL / GLIDE AND RIFFLE / RUN QUALITY MAXIMUM DEPTH: > 1m [6], 0.7-<1m [4], 0.4-<0.7m [2], 0.2-<0.4m [1], < 0.2m [0]. CHANNEL WIDTH: POOL WIDTH > RIFFLE WIDTH [2], POOL WIDTH = RIFFLE WIDTH [1], POOL WIDTH < RIFFLE WIDTH [0]. CURRENT VELOCITY: TORRENTIAL [-1], VERY FAST [1], FAST [1], MODERATE [1], SLOW [1], INTERSTITIAL [-1], INTERMITTENT [-2], EDDIES [1]. Recreation Potential: Primary Contact, Secondary Contact. Pool / Current Maximum 12

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: NO RIFFLE [metric=0]. RIFFLE DEPTH: BEST AREAS > 10cm [2], BEST AREAS 5-10cm [1], BEST AREAS < 5cm [metric=0]. RUN DEPTH: MAXIMUM > 50cm [2], MAXIMUM < 50cm [1]. RIFFLE / RUN SUBSTRATE: STABLE (e.g., Cobble, Boulder) [2], MOD. STABLE (e.g., Large Gravel) [1], UNSTABLE (e.g., Fine Gravel, Sand) [0]. RIFFLE / RUN EMBEDDEDNESS: NONE [2], LOW [1], MODERATE [0], EXTENSIVE [-1]. Riffle / Run Maximum 8

6] GRADIENT (7.3 ft/mi) DRAINAGE AREA (4.4 mi²) VERY LOW - LOW [2-4], MODERATE [6-10], HIGH - VERY HIGH [10-6]. %POOL: 60 %GLIDE: %RUN: 40 %RIFFLE: Gradient Maximum 10

Comment RE: Reach consistency/Is reach typical of stream? Recreation/Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

AJ SAMPLED REACH
Check ALL that apply

- METHOD**
 BOAT
 WADE
 L. LINE
 OTHER
- STAGE**
 HIGH
 UP
 NORMAL
 LOW
 DRY

- 1st-sample pass: 2nd
 HIGH
 UP
 NORMAL
 LOW
 DRY

- DISTANCE**
 0.5 Km
 0.2 Km
 0.15 Km
 0.12 Km
 OTHER

65 meters

- CLARITY**
 < 20 cm
 20-40 cm
 40-70 cm
 > 70 cm/CTB
 SECCHI DEPTH

- CANOPY**
 > 85%-OPEN
 55%-<85%
 30%-<55%
 10%-<30%
 <10%-CLOSED

- 1st _____ cm
 2nd _____ cm

CJ RECREATION
AREA DEPTH
 POOL: >100ft² >3ft

- BJ AESTHETICS**
 NUISANCE ALGAE
 INVASIVE MACROPHYTES
 EXCESS TURBIDITY
 DISCOLORATION
 FOAM / SCUM
 OIL SHEEN
 TRASH / LITTER
 NUISANCE ODOR
 SLUDGE DEPOSITS
 CSOs/ISSOs/OUTFALLS

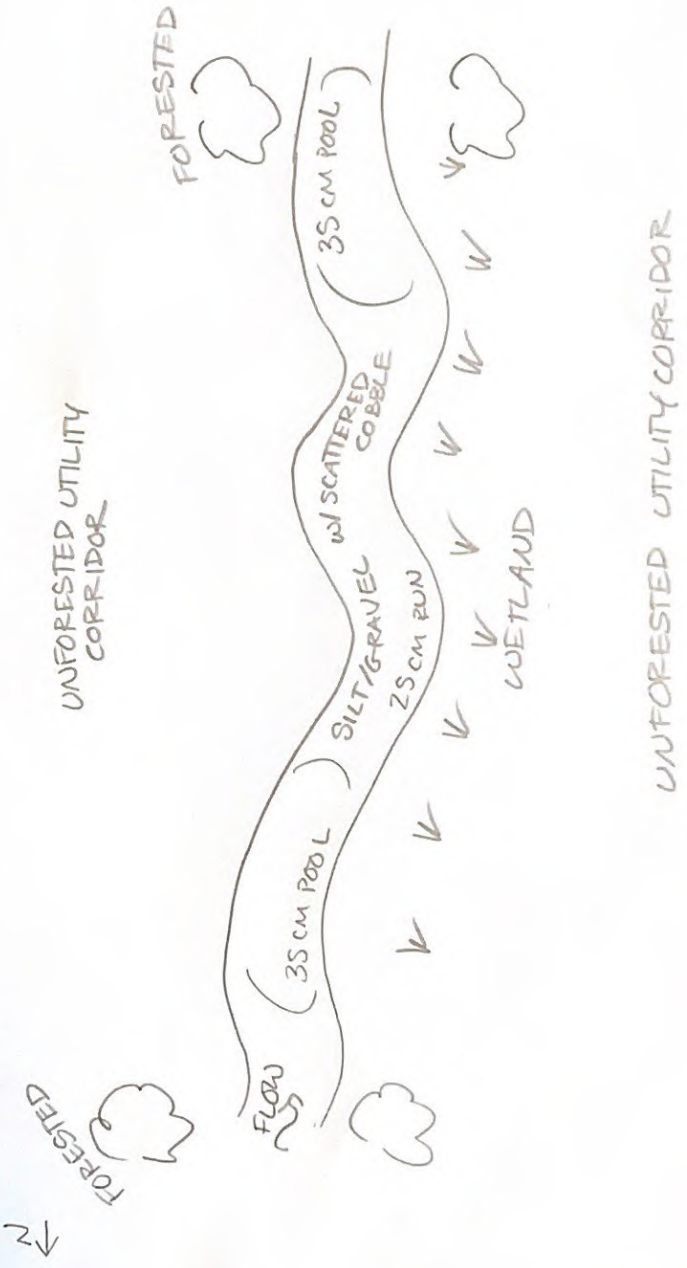
- DJ MAINTENANCE**
 PUBLIC / PRIVATE / BOTH / NA
 ACTIVE / HISTORIC / BOTH / NA
 YOUNG-SUCCESSION-OLD
 SPRAY / SNAG / REMOVED
 MODIFIED / DIPPED OUT / NA
 LEVEED / ONE SIDED
 RELOCATED / CUTOFFS
 MOVING-BEDLOAD-STABLE
 ARMOURD / SLUMPS
 ISLANDS / SCOURED
 IMPOUNDED / DESICCATED
 FLOOD CONTROL / DRAINAGE

Circle some & COMMENT

- EJ ISSUES**
 WWTP / CSO / NPDES / INDUSTRY
 HARDENED / URBAN / DIRT&GRIME
 CONTAMINATED / LANDFILL
 BMPs-CONSTRUCTION-SEDIMENT
 LOGGING / IRRIGATION / COOLING
 BANK / EROSION / SURFACE
 FALSE BANK / MANURE / LAGOON
 WASH H₂O / TILE / H₂O TABLE
 ACID / MINE / QUARRY / FLOW
 NATURAL / WETLAND / STAGNANT
 PARK / GOLF / LAWN / HOME
 ATMOSPHERE / DATA PAUCITY

- FJ MEASUREMENTS**
 x width
 x depth
 max. depth
 x bankfull width
 bankfull x depth
 W/D ratio
 bankfull max. depth
 floodprone x² width
 entrench. ratio
 Legacy Tree:

Stream Drawing:



Stream & Location: A&P Fostoria to Lima - Stream - 1-014 RM: 2.7 Date: 7/1/22

UNT to Blanchard River Scorers Full Name & Affiliation: Beth Hollinder, Chris Davisson, ESI

River Code: - - - STORET #: - - - Lat./ Long.: 41.026699 183.738527 Office verified location

1) SUBSTRATE

Check ONLY Two substrate TYPE BOXES, estimate % or note every type present

BEST TYPES		OTHER TYPES		ORIGIN		QUALITY	
<input type="checkbox"/> BLDR/SLABS [10]	<input type="checkbox"/> POOL RIFFLE	<input type="checkbox"/> HARDPAN [4]	<input type="checkbox"/> POOL RIFFLE	<input type="checkbox"/> LIMESTONE [1]	<input type="checkbox"/> SILT	<input type="checkbox"/> HEAVY [-2]	7
<input type="checkbox"/> BOULDER [9]	<input type="checkbox"/> GRAVEL [7]	<input type="checkbox"/> DETRITUS [3]	<input type="checkbox"/> MUCK [2]	<input checked="" type="checkbox"/> TILLS [1]	<input type="checkbox"/> WETLANDS [0]	<input checked="" type="checkbox"/> MODERATE [-1]	
<input type="checkbox"/> COBBLE [8]	<u>5</u>	<input type="checkbox"/> MUCK [2]	<input checked="" type="checkbox"/> SILT [2]	<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> NORMAL [0]	
<input type="checkbox"/> GRAVEL [7]	<u>30</u>	<input checked="" type="checkbox"/> SILT [2]	<u>65</u>	<input type="checkbox"/> HARDPAN [0]	<input type="checkbox"/> RIP/RAP [0]	<input type="checkbox"/> FREE [1]	
<input checked="" type="checkbox"/> SAND [6]		<input type="checkbox"/> ARTIFICIAL [0]		<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> LACUSTURINE [0]	<input type="checkbox"/> EXTENSIVE [-2]	
<input type="checkbox"/> BEDROCK [5]				<input type="checkbox"/> RIP/RAP [0]	<input type="checkbox"/> SHALE [-1]	<input checked="" type="checkbox"/> MODERATE [-1]	

NUMBER OF BEST TYPES: 4 or more [2] 3 or less [0]

Comments: _____

2) INSTREAM COVER

Indicate presence 0 to 3: 0-Absent, 1-Very small amounts or if more common of marginal quality, 2-Moderate amounts, but not of highest quality or in small amounts of highest quality, 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools)

			AMOUNT	
<input type="checkbox"/> UNDERCUT BANKS [1]	<input type="checkbox"/> POOLS > 70cm [2]	<input type="checkbox"/> OXBOWS, BACKWATERS [1]	Check ONE (Or 2 & average)	
<input type="checkbox"/> OVERHANGING VEGETATION [1]	<input type="checkbox"/> ROOTWADS [1]	<input type="checkbox"/> AQUATIC MACROPHYTES [1]	<input type="checkbox"/> EXTENSIVE >75% [11]	6
<input type="checkbox"/> SHALLOWS (IN SLOW WATER) [1]	<input type="checkbox"/> BOULDERS [1]	<input type="checkbox"/> LOGS OR WOODY DEBRIS [1]	<input type="checkbox"/> MODERATE 25-75% [7]	
<input type="checkbox"/> ROOTMATS [1]			<input checked="" type="checkbox"/> SPARSE 5-<25% [3]	
			<input type="checkbox"/> NEARLY ABSENT <5% [1]	

Comments: _____

3) CHANNEL MORPHOLOGY

Check ONE in each category (Or 2 & average)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
<input type="checkbox"/> HIGH [4]	<input type="checkbox"/> EXCELLENT [7]	<input type="checkbox"/> NONE [6]	<input type="checkbox"/> HIGH [3]
<input type="checkbox"/> MODERATE [3]	<input type="checkbox"/> GOOD [5]	<input type="checkbox"/> RECOVERED [4]	<input type="checkbox"/> MODERATE [2]
<input type="checkbox"/> LOW [2]	<input type="checkbox"/> FAIR [3]	<input checked="" type="checkbox"/> RECOVERING [3]	<input checked="" type="checkbox"/> LOW [1]
<input checked="" type="checkbox"/> NONE [1]	<input checked="" type="checkbox"/> POOR [1]	<input type="checkbox"/> RECENT OR NO RECOVERY [1]	

Comments: _____

4) BANK EROSION AND RIPARIAN ZONE

Check ONE in each category for EACH BANK (Or 2 per bank & average)

EROSION		RIPARIAN WIDTH		FLOOD PLAIN QUALITY	
<input checked="" type="checkbox"/> NONE / LITTLE [3]	<input type="checkbox"/> MODERATE [2]	<input type="checkbox"/> WIDE > 50m [4]	<input checked="" type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> FOREST, SWAMP [3]	<input type="checkbox"/> CONSERVATION TILLAGE [1]
<input type="checkbox"/> MODERATE [2]	<input type="checkbox"/> HEAVY / SEVERE [1]	<input checked="" type="checkbox"/> NARROW 5-10m [2]	<input type="checkbox"/> VERY NARROW < 5m [1]	<input type="checkbox"/> SHRUB OR OLD FIELD [2]	<input type="checkbox"/> URBAN OR INDUSTRIAL [0]
<input type="checkbox"/> HEAVY / SEVERE [1]		<input type="checkbox"/> NONE [0]		<input type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]	<input type="checkbox"/> MINING / CONSTRUCTION [0]
				<input checked="" type="checkbox"/> FENCED PASTURE [1]	
				<input checked="" type="checkbox"/> OPEN PASTURE, ROWCROP [0]	

Indicate predominant land use(s) past 100m riparian.

Comments: _____

5) POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH		CHANNEL WIDTH		CURRENT VELOCITY	
Check ONE (ONLY!)		Check ONE (Or 2 & average)		Check ALL that apply	
<input type="checkbox"/> > 1m [6]	<input checked="" type="checkbox"/> POOL WIDTH > RIFFLE WIDTH [2]	<input type="checkbox"/> TORRENTIAL [-1]	<input checked="" type="checkbox"/> SLOW [1]	Recreation Potential Primary Contact Secondary Contact (circle one and comment on back)	
<input type="checkbox"/> 0.7-<1m [4]	<input type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1]	<input type="checkbox"/> VERY FAST [1]	<input type="checkbox"/> INTERSTITIAL [-1]		
<input type="checkbox"/> 0.4-<0.7m [2]	<input type="checkbox"/> POOL WIDTH < RIFFLE WIDTH [0]	<input type="checkbox"/> FAST [1]	<input type="checkbox"/> INTERMITTENT [-2]		
<input type="checkbox"/> 0.2-<0.4m [1]		<input type="checkbox"/> MODERATE [1]	<input type="checkbox"/> EDDIES [1]		
<input checked="" type="checkbox"/> < 0.2m [0]				Indicate for reach - pools and riffles.	

Comments: _____

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: NO RIFFLE [metric=0]

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
<input type="checkbox"/> BEST AREAS > 10cm [2]	<input type="checkbox"/> MAXIMUM > 50cm [2]	<input type="checkbox"/> STABLE (e.g., Cobble, Boulder) [2]	<input type="checkbox"/> NONE [2]
<input type="checkbox"/> BEST AREAS 5-10cm [1]	<input type="checkbox"/> MAXIMUM < 50cm [1]	<input type="checkbox"/> MOD. STABLE (e.g., Large Gravel) [1]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> BEST AREAS < 5cm [metric=0]		<input type="checkbox"/> UNSTABLE (e.g., Fine Gravel, Sand) [0]	<input type="checkbox"/> MODERATE [0]
			<input type="checkbox"/> EXTENSIVE [-1]

Comments: _____

6) GRADIENT (9.6 ft/mi) VERY LOW - LOW [2-4] %POOL: 70 %GLIDE:

DRAINAGE AREA (1.1 mi²) MODERATE [6-10] %RUN: 30 %RIFFLE:

HIGH - VERY HIGH [10-6] Gradient Maximum 6

Comment RE: Reach consistency/ Is reach typical of stream? , Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

AJ SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
- WADE
- L. LINE
- OTHER

STAGE

- 1st - sample pass - 2nd
- HIGH
- UP
- NORMAL
- LOW
- DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

65 meters

CANOPY

- > 85% - OPEN
- 55% - < 85%
- 30% - < 55%
- 10% - < 30%
- < 10% - CLOSED

CJ RECREATION

AREA DEPTH
POOL: > 100ft² > 3ft

BJ AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

DJ MAINTENANCE

- PUBLIC / PRIVATE / BOTH / NA
- ACTIVE / HISTORIC / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- MOVING-BEDLOAD-STABLE
- ARMoured / SLUMPS
- ISLANDS / SCOURED
- IMPOUNDED / DESICCATED
- FLOOD CONTROL / DRAINAGE

EJ ISSUES

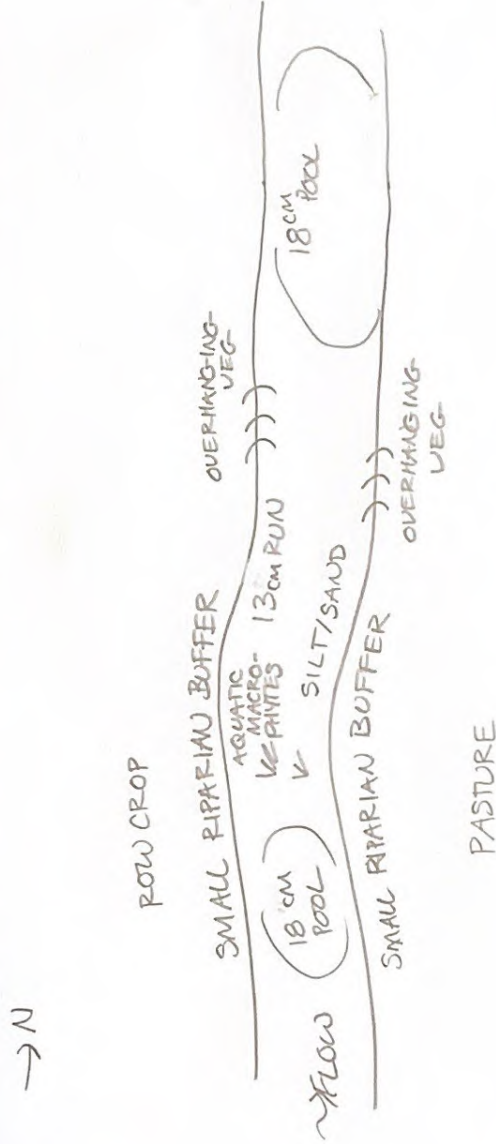
- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT & GRIME
- CONTAMINATED / LANDFILL
- BMPs - CONSTRUCTION-SEDIMENT
- LOGGING / IRRIGATION / COOLING
- BANK / EROSION / SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

FJ MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio

Legacy Tree:

Stream Drawing:



Modified Class II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

42

SITE NAME/LOCATION AEP Fostoria to Lima - Stream 1-016 (UNT to Blanchard River)
 SITE NUMBER RIVER BASIN Blanchard River RIVER CODE DRAINAGE AREA (m²) 0.47
 LENGTH OF STREAM REACH (ft) 210 LAT 41.019456 LONG -83.744906 RIVER MILE 3.4
 DATE 7/2/2022 SCORER BH & CD COMMENTS

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

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This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: Blanchard River Distance from Evaluated Stream 3.4 miles
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Findlay NRCS Soil Map Page: 1 NRCS Soil Map Stream Order: 1
County: Hancock Township/City: Liberty Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 7/1/22 Quantity: 0.57"
Photo-documentation Notes: upstream, downstream, & substrate photos recorded
Elevated Turbidity? (Y/N): N Canopy (% open): 100
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____
Additional comments/description of pollution impacts: _____

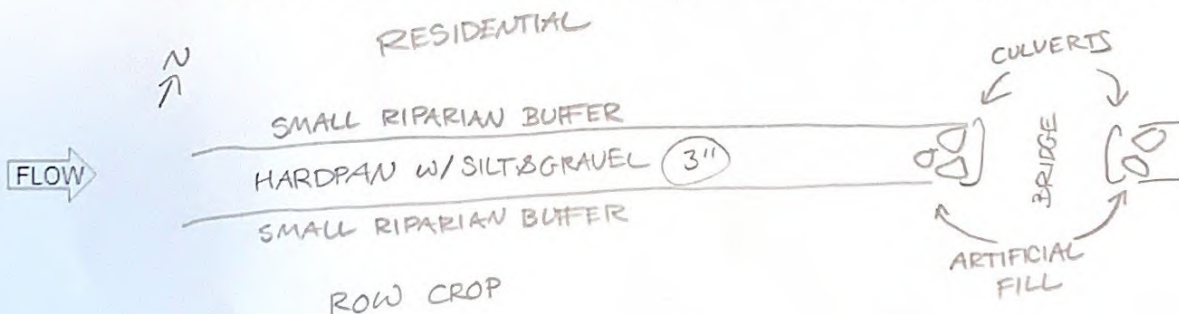
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Modified Class I PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

26

SITE NAME/LOCATION ASP Fostoria to Lima - Stream 1-021 (UNT to Ottawa Creek)
 SITE NUMBER RIVER BASIN Ottawa Creek RIVER CODE DRAINAGE AREA (m²) < 0.05
 LENGTH OF STREAM REACH (ft) 35 LAT 40.965293 LONG -83.800703 RIVER MILE N/A
 DATE 7/2/22 SCORER BH & CD COMMENTS

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

<p>1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B</p>		<p>HHEI Metric Points Substrate Max = 40</p> <p>A + B</p>																											
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This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wide >10m		Mature Forest, Wetland	Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Moderate 5-10m		Immature Forest, Shrub or Old Field	Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Narrow <5m		Residential, Park, New Field	Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None		Fenced Pasture	Mining or Construction

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: Ottawa Creek Distance from Evaluated Stream 35 feet
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Rawson NRCS Soil Map Page: 1 NRCS Soil Map Stream Order: 1
County: Hancock Township/City: Union Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 7/1/22 Quantity: 0.57"
Photo-documentation Notes: Upstream, downstream, 8 substrate photos recorded
Elevated Turbidity? (Y/N): N Canopy (% open): 0
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____

Additional comments/description of pollution impacts: _____

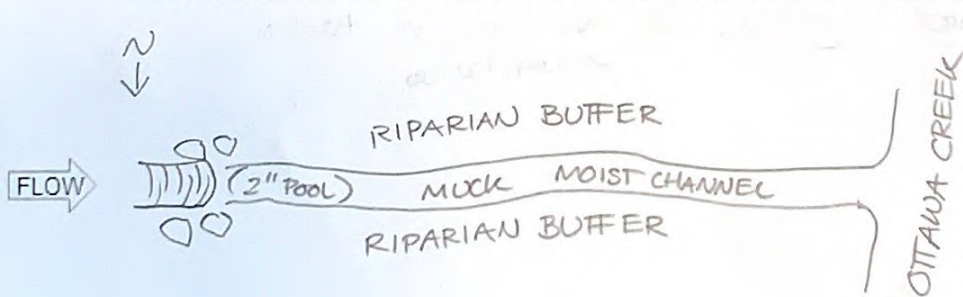
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Modified Class II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

37

SITE NAME/LOCATION A&P Fostoria to Lima - Stream 1-022 (UNIT to Ottawa Creek)
 SITE NUMBER 1 RIVER BASIN Ottawa Creek RIVER CODE 1 DRAINAGE AREA (m²) 0.52
 LENGTH OF STREAM REACH (ft) 200 LAT 40.954133 LONG -83.816972 RIVER MILE 0.1
 DATE 7/3/22 SCORER BHBCD COMMENTS _____

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

<p>1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes. (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B</p>		<p>HHEI Metric Points Substrate Max = 40</p> <p>7</p> <p>A + B</p>																											
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<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____																										
<p>2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 feet) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):</p> <p><input type="checkbox"/> > 30 centimeters [20 pts] <input checked="" type="checkbox"/> 5 cm - 10 cm [15 pts]</p> <p><input type="checkbox"/> > 22.5 - 30 cm [30 pts] <input type="checkbox"/> < 5 cm [5pts]</p> <p><input type="checkbox"/> > 10 - 22.5 cm [25 pts] <input type="checkbox"/> NO WATER OR MOIST CHANNEL [0pts]</p> <p>COMMENTS <u>3"</u> MAXIMUM POOL DEPTH (centimeters): <u>7.6</u></p>		<p>Pool Depth Max = 30</p> <p>15</p>																											
<p>3. BANK FULL WIDTH (Measured as the average of 3 - 4 measurements) (Check ONLY one box):</p> <p><input type="checkbox"/> > 4.0 meters (> 13') [30 pts] <input checked="" type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]</p> <p><input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] <input type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]</p> <p><input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]</p> <p>COMMENTS <u>4'</u> AVERAGE BANKFULL WIDTH (meters) <u>1.2</u></p>		<p>Bankfull Width Max=30</p> <p>15</p>																											

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY * NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Wide >10m	<input type="checkbox"/>	<input type="checkbox"/> Mature Forest, Wetland
<input type="checkbox"/>	<input type="checkbox"/> Moderate 5-10m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/> Narrow <5m	<input type="checkbox"/>	<input type="checkbox"/> Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/> None	<input type="checkbox"/>	<input type="checkbox"/> Fenced Pasture
		<input type="checkbox"/>	<input type="checkbox"/> Conservation Tillage
		<input type="checkbox"/>	<input type="checkbox"/> Urban or Industrial
		<input type="checkbox"/>	<input type="checkbox"/> Open Pasture, Row Crop
		<input type="checkbox"/>	<input type="checkbox"/> Mining or Construction

COMMENTS _____

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

- Stream Flowing Moist Channel, isolated pools, no flow (intermittent)
- Subsurface flow with isolated pools (interstitial) Dry channel, no water (ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

- None 1.0 2.0 3.0
- 0.5 1.5 2.5 >3

STREAM GRADIENT ESTIMATE

- Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

DOWNSTREAM DESIGNATED USE(S)

WWH Name: Ottawa Creek Distance from Evaluated Stream 0.1 mile
 CWH Name: _____ Distance from Evaluated Stream _____
 EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Rawson NRCS Soil Map Page: 1 NRCS Soil Map Stream Order: 1
County: Hancock Township/City: Union Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 7/1/22 Quantity: 0.57"
Photo-documentation Notes: upstream, downstream, & substrate photos recorded.
Elevated Turbidity? (Y/N): N Canopy (% open): 90
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____
Additional comments/description of pollution impacts: _____

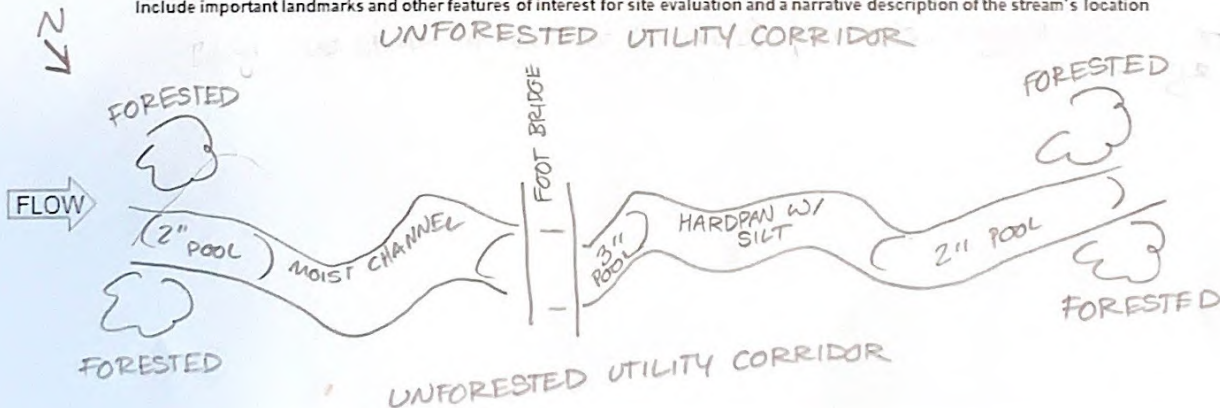
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Modified Class II PHW



Headwater Habitat Evaluation Index Field Form

HHEI Score (sum of metrics 1+2+3)

45

SITE NAME/LOCATION Asp Fostoria to Lima - Stream 1-027 (UNT to Cranberry Creek)
 SITE NUMBER RIVER BASIN Cranberry Creek RIVER CODE DRAINAGE AREA (mi²) 0.48
 LENGTH OF STREAM REACH (ft) 200 LAT 40.850558 LONG -83.99005 RIVER MILE 1.9
 DATE 7/5/12 SCORER BH BCD COMMENTS

NOTE: Complete All Items On This Form - Refer to "Headwater Habitat Evaluation Index Field Manual" for Instructions

STREAM CHANNEL MODIFICATIONS: NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY

<p>1. SUBSTRATE (Estimate percent of every type present). Check ONLY two predominant substrate TYPE boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B</p> <table border="0"> <thead> <tr> <th>TYPE</th> <th>PERCENT</th> <th>TYPE</th> <th>PERCENT</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> BLDR SLABS [16 pts]</td> <td> </td> <td><input checked="" type="checkbox"/> SILT [3 pt]</td> <td>40</td> </tr> <tr> <td><input type="checkbox"/> BOULDER (>256 mm) [16 pts]</td> <td> </td> <td><input type="checkbox"/> LEAF PACKWOODY DEBRIS [3 pts]</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> BEDROCK [16 pts]</td> <td> </td> <td><input type="checkbox"/> FINE DETRITUS [3 pts]</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> COBBLE (65-256 mm) [12 pts]</td> <td> </td> <td><input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]</td> <td>60</td> </tr> <tr> <td><input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]</td> <td> </td> <td><input type="checkbox"/> MUCK [0 pts]</td> <td> </td> </tr> <tr> <td><input type="checkbox"/> SAND (<2 mm) [6 pts]</td> <td> </td> <td><input type="checkbox"/> ARTIFICIAL [3 pts]</td> <td> </td> </tr> </tbody> </table> <p>Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock (A) <u> </u> (B) <u>2</u></p> <p>SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: <u>3</u> TOTAL NUMBER OF SUBSTRATE TYPES: <u>2</u></p>		TYPE	PERCENT	TYPE	PERCENT	<input type="checkbox"/> BLDR SLABS [16 pts]		<input checked="" type="checkbox"/> SILT [3 pt]	40	<input type="checkbox"/> BOULDER (>256 mm) [16 pts]		<input type="checkbox"/> LEAF PACKWOODY DEBRIS [3 pts]		<input type="checkbox"/> BEDROCK [16 pts]		<input type="checkbox"/> FINE DETRITUS [3 pts]		<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]		<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	60	<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]		<input type="checkbox"/> MUCK [0 pts]		<input type="checkbox"/> SAND (<2 mm) [6 pts]		<input type="checkbox"/> ARTIFICIAL [3 pts]		<p>HHEI Metric Points</p> <p>Substrate Max = 40</p> <p>5</p> <p>A + B</p>
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This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

* NOTE: River Left (L) and Right (R) as looking downstream*

RIPARIAN WIDTH (Per Bank)		FLOODPLAIN QUALITY (Most Predominant per Bank)	
L	R	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS

FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

<input checked="" type="checkbox"/> Stream Flowing	<input type="checkbox"/> Moist Channel, isolated pools, no flow (intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (interstitial)	<input type="checkbox"/> Dry channel, no water (ephemeral)

COMMENTS

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box):

<input type="checkbox"/> None	<input checked="" type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

STREAM GRADIENT ESTIMATE

<input type="checkbox"/> Flat (0.5 ft/100 ft)	<input checked="" type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
---	--	---	---	--

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? Yes No QHEI Score _____ (If Yes, Attach Completed QHEI form)

^{MWH} DOWNSTREAM DESIGNATED USE(S)
 WWH Name: Cranberry Creek Distance from Evaluated Stream 1.9 miles
 CWH Name: _____ Distance from Evaluated Stream _____
 EVH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION.

USGS Quadrangle Name: Beaverdam NRCS Soil Map Page: NRCS Soil Map Stream Order:
County: Allen Township/City: Richland Township

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 7/5/22 Quantity: 0.85"
Photo-documentation Notes: upstream, downstream, & substrate photos documented
Elevated Turbidity? (Y/N): Y Canopy (% open): 90
Were samples collected for water chemistry? (Y/N): N Lab Sample # or ID (attach results): _____
Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (umhos/cm) _____
Is the sampling reach representative of the stream (Y/N) Y If not, explain: _____
Additional comments/description of pollution impacts: _____

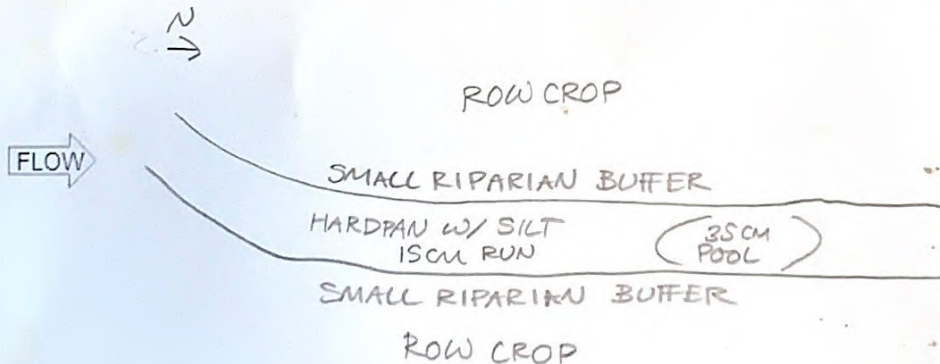
BIOLOGICAL OBSERVATIONS

(Record all observations below)

Fish Observed? (Y/N) N Species observed (if known): _____
Frogs or Tadpoles Observed? (Y/N) N Species observed (if known): _____
Salamanders Observed? (Y/N) N Species observed (if known): _____
Aquatic Macroinvertebrates Observed? (Y/N) N Species observed (if known): _____
Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed)

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location



Stream & Location: AEP Fostoria to Lima - Stream 1-029 RM: 1.1 Date: 7/5/22

LWT to Sugar Creek **Scorers Full Name & Affiliation:** Beth Hollinden, Chris Davison, ESI

River Code: - **STORET #:** - **Lat./ Long.:** 40 809946 18 4. 024931 (NAD 83 - decimal) **Office verified location**

1] SUBSTRATE Check **ONLY** Two substrate **TYPE BOXES**, estimate % or note every type present

BEST TYPES	POOL RIFFLE	OTHER TYPES	POOL RIFFLE	ORIGIN	QUALITY
<input type="checkbox"/> BLDR /SLABS [10]	_____	<input checked="" type="checkbox"/> HARDPAN [4]	<u>50</u> <u>50</u>	<input type="checkbox"/> LIMESTONE [1]	<input type="checkbox"/> HEAVY [-2]
<input type="checkbox"/> BOULDER [9]	_____	<input type="checkbox"/> DETRITUS [3]	_____	<input checked="" type="checkbox"/> TILLS [1]	<input type="checkbox"/> MODERATE [-1]
<input type="checkbox"/> COBBLE [8]	_____	<input type="checkbox"/> MUCK [2]	_____	<input type="checkbox"/> WETLANDS [0]	<input checked="" type="checkbox"/> NORMAL [0]
<input type="checkbox"/> GRAVEL [7]	_____	<input type="checkbox"/> SILT [2]	<u>20</u> <u>20</u>	<input type="checkbox"/> HARDPAN [0]	<input type="checkbox"/> FREE [1]
<input checked="" type="checkbox"/> SAND [6]	<u>30</u> <u>30</u>	<input type="checkbox"/> ARTIFICIAL [0]	_____	<input type="checkbox"/> SANDSTONE [0]	<input type="checkbox"/> EXTENSIVE [-2]
<input type="checkbox"/> BEDROCK [5]	_____	<small>(Score natural substrates; ignore sludge from point-sources)</small>		<input type="checkbox"/> RIP/RAP [0]	<input type="checkbox"/> MODERATE [-1]
				<input type="checkbox"/> LACUSTURINE [0]	<input checked="" type="checkbox"/> NORMAL [0]
				<input type="checkbox"/> SHALE [-1]	<input type="checkbox"/> NONE [1]
				<input type="checkbox"/> COAL FINES [-2]	

NUMBER OF BEST TYPES: 4 or more [2] 3 or less [0]

Comments _____

Substrate
11
Maximum
20

2] INSTREAM COVER Indicate presence 0 to 3. 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

<input checked="" type="checkbox"/> UNDERCUT BANKS [1] <input type="checkbox"/> OVERHANGING VEGETATION [1] <input type="checkbox"/> SHALLOWS (IN SLOW WATER) [1] <input type="checkbox"/> ROOTMATS [1]	<input type="checkbox"/> POOLS > 70cm [2] <input type="checkbox"/> ROOTWADS [1] <input type="checkbox"/> BOULDERS [1]	<input type="checkbox"/> OXBOWS, BACKWATERS [1] <input type="checkbox"/> AQUATIC MACROPHYTES [1] <input type="checkbox"/> LOGS OR WOODY DEBRIS [1]	AMOUNT
			Check ONE (Or 2 & average)
			<input type="checkbox"/> EXTENSIVE >75% [11]
			<input type="checkbox"/> MODERATE 25-75% [7]
			<input checked="" type="checkbox"/> SPARSE 5-<25% [3]
			<input type="checkbox"/> NEARLY ABSENT <5% [1]

Comments _____

Cover
Maximum
20
6

3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
<input type="checkbox"/> HIGH [4]	<input type="checkbox"/> EXCELLENT [7]	<input type="checkbox"/> NONE [6]	<input type="checkbox"/> HIGH [3]
<input type="checkbox"/> MODERATE [3]	<input type="checkbox"/> GOOD [5]	<input type="checkbox"/> RECOVERED [4]	<input checked="" type="checkbox"/> MODERATE [2]
<input checked="" type="checkbox"/> LOW [2]	<input checked="" type="checkbox"/> FAIR [3]	<input checked="" type="checkbox"/> RECOVERING [3]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> NONE [1]	<input type="checkbox"/> POOR [1]	<input type="checkbox"/> RECENT OR NO RECOVERY [1]	

Comments _____

Channel
Maximum
20
10

4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)

EROSION	RIPARIAN WIDTH	FLOOD PLAIN QUALITY
<input type="checkbox"/> NONE / LITTLE [3]	<input type="checkbox"/> WIDE > 50m [4]	<input type="checkbox"/> FOREST, SWAMP [3]
<input checked="" type="checkbox"/> MODERATE [2]	<input type="checkbox"/> MODERATE 10-50m [3]	<input type="checkbox"/> SHRUB OR OLD FIELD [2]
<input type="checkbox"/> HEAVY / SEVERE [1]	<input checked="" type="checkbox"/> NARROW 5-10m [2]	<input checked="" type="checkbox"/> RESIDENTIAL, PARK, NEW FIELD [1]
	<input checked="" type="checkbox"/> VERY NARROW < 5m [1]	<input type="checkbox"/> FENCED PASTURE [1]
	<input type="checkbox"/> NONE [0]	<input checked="" type="checkbox"/> OPEN PASTURE, ROWCROP [0]

Indicate predominant land use(s) past 100m riparian.

Comments _____

Riparian
Maximum
10
4

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH	CHANNEL WIDTH	CURRENT VELOCITY
Check ONE (ONLY!)	Check ONE (Or 2 & average)	Check ALL that apply
<input type="checkbox"/> > 1m [6]	<input checked="" type="checkbox"/> POOL WIDTH > RIFFLE WIDTH [2]	<input type="checkbox"/> TORRENTIAL [-1]
<input type="checkbox"/> 0.7-<1m [4]	<input type="checkbox"/> POOL WIDTH = RIFFLE WIDTH [1]	<input type="checkbox"/> VERY FAST [1]
<input checked="" type="checkbox"/> 0.4-<0.7m [2]	<input type="checkbox"/> POOL WIDTH < RIFFLE WIDTH [0]	<input type="checkbox"/> INTERSTITIAL [-1]
<input type="checkbox"/> 0.2-<0.4m [1]		<input type="checkbox"/> FAST [1]
<input type="checkbox"/> < 0.2m [0]		<input type="checkbox"/> INTERMITTENT [-2]
		<input type="checkbox"/> MODERATE [1]
		<input type="checkbox"/> EDDIES [1]

Indicate for reach - pools and riffles.

Comments _____

Recreation Potential
Primary Contact
Secondary Contact
(circle one and comment on back)

Pool / Current
Maximum
12
5

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: NO RIFFLE [metric=0]

Check ONE (Or 2 & average).

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
<input checked="" type="checkbox"/> BEST AREAS > 10cm [2]	<input type="checkbox"/> MAXIMUM > 50cm [2]	<input type="checkbox"/> STABLE (e.g., Cobble, Boulder) [2]	<input type="checkbox"/> NONE [2]
<input type="checkbox"/> BEST AREAS 5-10cm [1]	<input type="checkbox"/> MAXIMUM < 50cm [1]	<input type="checkbox"/> MOD. STABLE (e.g., Large Gravel) [1]	<input type="checkbox"/> LOW [1]
<input type="checkbox"/> BEST AREAS < 5cm [metric=0]		<input checked="" type="checkbox"/> UNSTABLE (e.g., Fine Gravel, Sand) [0]	<input checked="" type="checkbox"/> MODERATE [0]

Comments _____

Riffle / Run
Maximum
8
3

6] GRADIENT 13 ft/mi VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]

DRAINAGE AREA (3.33) mi²

% POOL: 50 **% GLIDE:**

% RUN: 40 **% RIFFLE:** 10

Comments _____

Gradient
Maximum
10
8

AJ SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
 - WADE
 - L. LINE
 - OTHER
- STAGE**
- HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

CLARITY

- 1st sample pass-- 2nd
- < 20 cm
 - 20-40 cm
 - 40-70 cm
 - > 70 cm/CTB
 - SECCHI DEPTH

62 meters

CANOPY

- > 85%- OPEN
- 55%-<85%
- 30%-<55%
- 10%-<30%
- <10%- CLOSED

CJ RECREATION

AREA DEPTH
POOL: >100ft² >3ft

BJ AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

DJ MAINTENANCE

- PUBLIC / PRIVATE / BOTH / NA
- ACTIVE / HISTORIC / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- MOVING-BEDLOAD-STABLE
- ARMoured / SLUMPS
- ISLANDS / SCOURED
- IMPOUNDED / DESICCATED
- FLOOD CONTROL / DRAINAGE

EJ ISSUES

- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT&GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION-SEDIMENT
- LOGGING / IRRIGATION / COOLING
- BANK / EROSION / SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

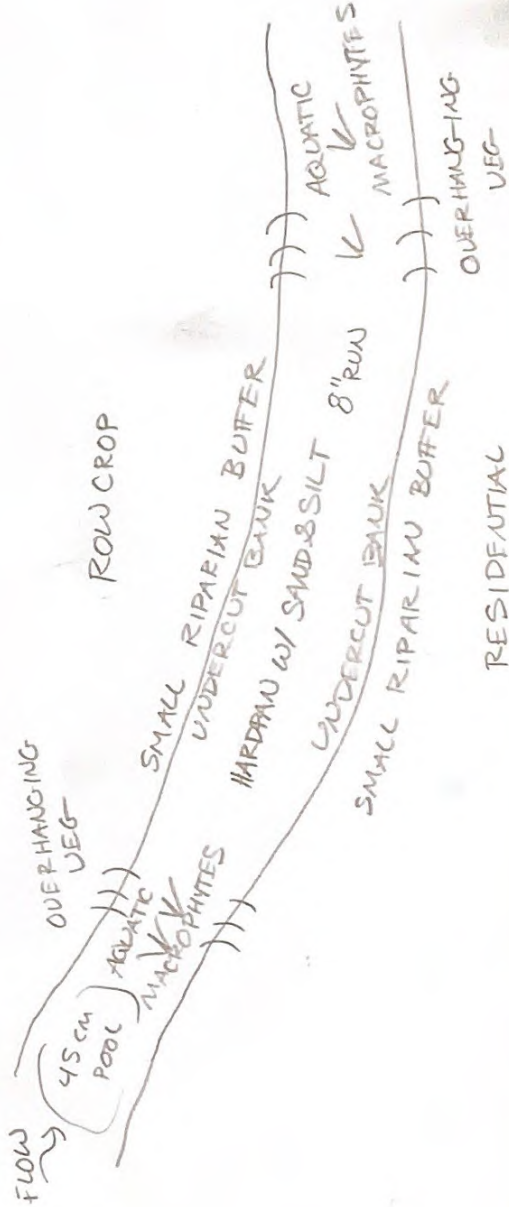
FJ MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone \bar{x}^2 width
- entrench. ratio

Legacy Tree:

Comment RE: Reach consistency/Is reach typical of stream? - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

Stream Drawing:





ENVIRONMENTAL SOLUTIONS & INNOVATIONS, INC.

4300 Lynn Road, Suite 205
Ravenna, OH 44266
Phone: 513-451-1777 Fax: 513-451-3321

Pesi 2018

10 November 2023

Aldridge Electric
844 E. Rockland Road
Libertyville, IL 60048

To Whom it May Concern:

RE: Addendum: AEP's Fostoria-East Lima 138 kV Transmission Line Rebuild Project in Liberty Township, Hancock County, Ohio

Aldridge Electric (AE) retained Environmental Solutions & Innovations, Inc. (ESI) on behalf of American Electric Power (AEP) to complete an ecological survey for the above referenced project in Hancock County, Ohio. ESI initially surveyed the main route for aquatic resources in July 2022.

On 16 October 2023, ESI re-visited the site and completed an ecological survey in one additional workspace within the Area of Investigation (AOI) that is the subject of this letter addendum. A forested portion of wetland 1-Z was identified within the additional workspace and mapped. One stream (1-012) and two wetlands (1-Z PEM and 1-AA) were extended beyond previous constraints and one additional upland sample point was taken within the workspace to characterize upland conditions. One NWI mapped resource was identified within the workspace. Figures showing the project location and the aquatic resource delineation are provided in Attachment 1. Representative photographs of wetlands and upland sample points and the stream are provided in Attachment 2 and field data sheets for sample points are provided in Attachment 3. Temporary or permanent impacts to these resources may require permits from the USACE and or OEPA.

Please contact me with any questions or requests for additional information. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cory Kwolek".

Cory Kwolek, Scientist
Email: ckwolek@envsi.com
Mobile: (937) 671-2103

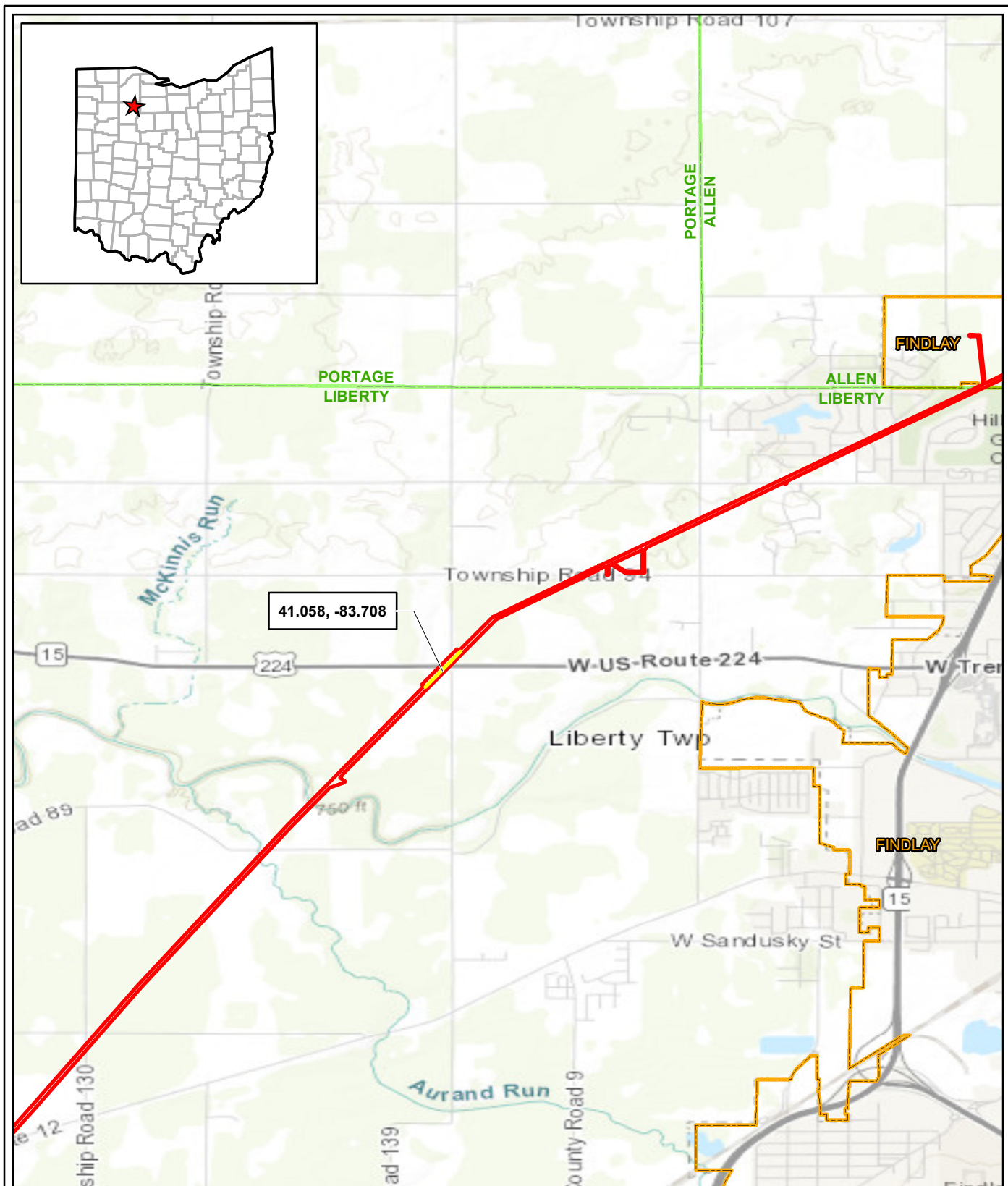
Attachments:

Attachment 1 – Figures
Attachment 2 – Site Photos
Attachment 3 – Datasheets

www.ENVSI.com

**ATTACHMENT 1
FIGURES**





- Proposed Reroute Area of Investigation (AOI) USGS 7.5-minute Quad Boundary
- Township Boundary City

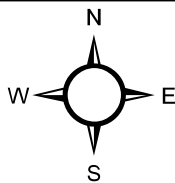


Figure 1. Addendum: Location of the AEP Fostoria - East Lima 138kV Transmission Line Rebuild Project in Allen and Hancock Counties, Ohio.

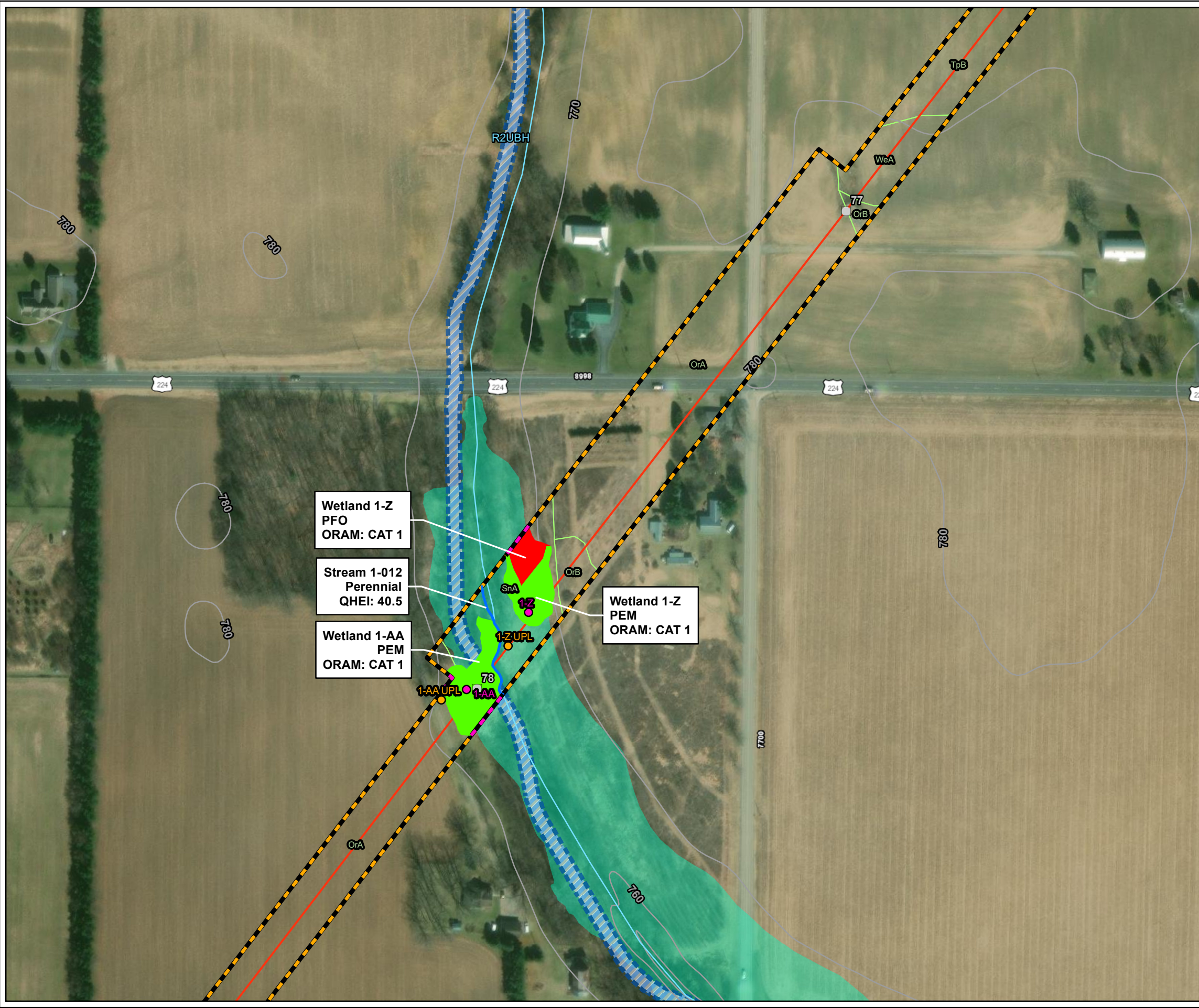
Project No.
2018

0 0.5 1
 Mile
 Base Map: USGS Topographic Map



**ENVIRONMENTAL SOLUTIONS
& INNOVATIONS, INC.**

Figure 2. Addendum: Aquatic resource delineation on the AEP Fostoria - East Lima 138kV Transmission Line Rebuild Project in Allen and Hancock Counties, Ohio.



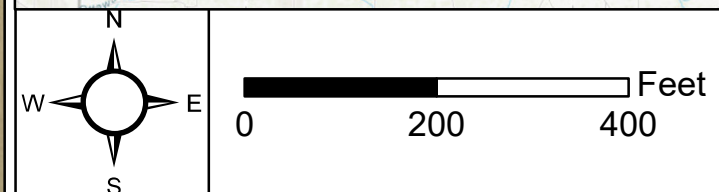
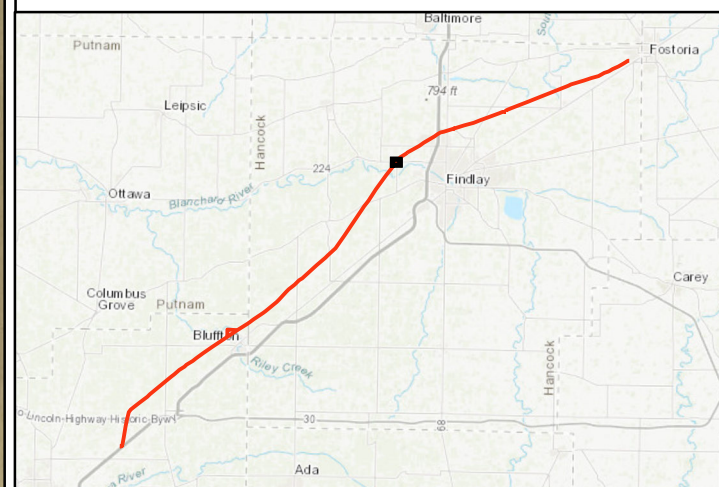
- Structure Location
- Resource Continues Off-Site
- Project Centerline
- National Hydrography Dataset (NHD) Stream
- Field-Delineated Stream
- Area of Investigation (AOI)
- Soils
- FEMA 100-Year Floodplain
- 10-Foot USGS Contour
- Field-Delineated Wetland**
- PEM
- PFO
- National Wetland Inventory (NWI)**
- Riverine
- Sample Point**
- Upland
- Wetland

Wetland 1-Z
PFO
ORAM: CAT 1

Stream 1-012
Perennial
QHEI: 40.5

Wetland 1-AA
PEM
ORAM: CAT 1

Wetland 1-Z
PEM
ORAM: CAT 1



Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
 Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

ESI ENVIRONMENTAL SOLUTIONS & INNOVATIONS, INC.
 Project No. 2018

**ATTACHMENT 2
SITE PHOTOS**



Environmental Solutions & Innovations
Photo Documentation

Client/Site Name:

American Electric Power (AEP)
Addendum: Fostoria to East Lima Line
Rebuild Project

Site Location:

Hancock County, OH

Project #:

2018



Wetland 1-Z PFO (North)



Wetland 1-Z PFO (East)



Wetland 1-Z PFO (South)



Wetland 1-Z PFO (West)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

American Electric Power (AEP)
Addendum: Fostoria to East Lima Line
Rebuild Project

Site Location:

Hancock County, OH

Project #:

2018



Wetland 1-Z PFO (Soil)



Upland 2-SP-001 (North)



Upland 2-SP-001 (East)



Upland 2-SP-001 (South)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

American Electric Power (AEP)
Addendum: Fostoria to East Lima Line
Rebuild Project

Site Location:

Hancock County, OH

Project #:

2018



Upland 2-SP-001 (West)



Upland 2-SP-001 (Soil)



Stream 1-012 (Upstream)



Stream 1-012 (Downstream)

**Environmental Solutions & Innovations
Photo Documentation**

Client/Site Name:

American Electric Power (AEP)
Addendum: Fostoria to East Lima Line
Rebuild Project

Site Location:

Hancock County, OH

Project #:

2018



Stream 1-012 (Substrate)

**ATTACHMENT 3
DATASHEETS**

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 2018 Aldrich Fostoria - East Lima Project City/County: Hancock County Sampling Date: 2023-10-16
 Applicant/Owner: Aldrich Electric State: Ohio Sampling Point: 1-Z PFO
 Investigator(s): C. Kwolek, E. Wilson Section, Township, Range: S9 T1N R10E
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): L 99 Lat: 41.057791 Long: -83.709631 Datum: WGS 84
 Soil Map Unit Name: SnA - Sloan loam, 0 to 1 percent slopes, occasionally flooded NWI classification: N/A

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: _____
---	---	--	---

Remarks: (Explain alternative procedures here or in a separate report.)

Wetland sample point for PFO portion of 1-Z. Sample taken within forested portion of wetland. All three wetland criteria present.

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: 1-Z PFO

	Absolute % Cover	Dominant Species?	Indicator Status																						
Tree Stratum (Plot size: <u>30 ft r</u>)																									
1. <u>Salix nigra</u>	<u>55</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83.33</u> (A/B)																					
2. <u>Populus tremuloides</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																						
3. _____																									
4. _____																									
5. _____																									
6. _____																									
7. _____																									
	<u>75</u>																								
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)																									
1. <u>Fraxinus pennsylvanica</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"></td> <td style="width:25%; text-align:center;">Total % Cover of:</td> <td style="width:25%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td style="text-align:center;"><u>75</u></td> <td style="text-align:center;">x 1 = <u>75</u></td> </tr> <tr> <td>FACW species</td> <td style="text-align:center;"><u>50</u></td> <td style="text-align:center;">x 2 = <u>100</u></td> </tr> <tr> <td>FAC species</td> <td style="text-align:center;"><u>35</u></td> <td style="text-align:center;">x 3 = <u>105</u></td> </tr> <tr> <td>FACU species</td> <td style="text-align:center;"><u>20</u></td> <td style="text-align:center;">x 4 = <u>80</u></td> </tr> <tr> <td>UPL species</td> <td style="text-align:center;"><u>0</u></td> <td style="text-align:center;">x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals:</td> <td style="text-align:center;"><u>180</u> (A)</td> <td style="text-align:center;"><u>360</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.00</u>		Total % Cover of:	Multiply by:	OBL species	<u>75</u>	x 1 = <u>75</u>	FACW species	<u>50</u>	x 2 = <u>100</u>	FAC species	<u>35</u>	x 3 = <u>105</u>	FACU species	<u>20</u>	x 4 = <u>80</u>	UPL species	<u>0</u>	x 5 = <u>0</u>	Column Totals:	<u>180</u> (A)	<u>360</u> (B)
	Total % Cover of:	Multiply by:																							
OBL species	<u>75</u>	x 1 = <u>75</u>																							
FACW species	<u>50</u>	x 2 = <u>100</u>																							
FAC species	<u>35</u>	x 3 = <u>105</u>																							
FACU species	<u>20</u>	x 4 = <u>80</u>																							
UPL species	<u>0</u>	x 5 = <u>0</u>																							
Column Totals:	<u>180</u> (A)	<u>360</u> (B)																							
2. _____																									
3. _____																									
4. _____																									
5. _____																									
6. _____																									
7. _____																									
	<u>35</u>																								
Herb Stratum (Plot size: <u>5 ft r</u>)																									
1. <u>Equisetum hyemale</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																					
2. <u>Leersia oryzoides</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>																						
3. <u>Eupatorium perfoliatum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																						
4. _____																									
5. _____																									
6. _____																									
7. _____																									
8. _____																									
9. _____																									
10. _____																									
11. _____																									
12. _____																									
	<u>70</u>																								
Woody Vine Stratum (Plot size: <u>30 ft r</u>)																									
1. _____																									
2. _____																									
3. _____																									
4. _____																									
	<u>0</u>																								

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

Hydrophytic vegetation present

Hydrophytic Vegetation Present? Yes No

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 2018 Aldrich Fostoria - East Lima Project City/County: Hancock County Sampling Date: 2023-10-16
 Applicant/Owner: Aldrich Electric State: Ohio Sampling Point: 2-SP-001
 Investigator(s): C. Kwolek, E. Wilson Section, Township, Range: S9 T1N R10E
 Landform (hillslope, terrace, etc.): Upland, Depression Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): L 99 Lat: 41.057344 Long: -83.710152 Datum: WGS 84
 Soil Map Unit Name: SnA - Sloan loam, 0 to 1 percent slopes, occasionally flooded NWI classification: R2UBH

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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
---	---

Remarks: (Explain alternative procedures here or in a separate report.)

Upland sample point taken to characterize upland conditions. Sample point taken within forest adjacent to PEM and perennial stream. Although hydrophytic vegetation is present, no hydric soil or hydrology is present.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

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

Remarks:

No wetland hydrology present

VEGETATION – Use scientific names of plants.

Sampling Point: **2-SP-001**

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30 ft r</u>)				
1. <u>Ulmus americana</u>	<u>45</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)
2. <u>Acer saccharinum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Rhamnus cathartica</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
	<u>75</u>			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>70</u> x 2 = <u>140</u> FAC species <u>55</u> x 3 = <u>165</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>125</u> (A) <u>305</u> (B) Prevalence Index = B/A = <u>2.44</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft r</u>)				
1. <u>Lonicera maackii</u>	<u>20</u>	<input checked="" type="checkbox"/>		Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>20</u>			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5 ft r</u>)				
1. <u>Persicaria virginiana</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
2. <u>Cryptotaenia canadensis</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Elymus virginicus</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>50</u>			Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1. _____				
2. _____				
3. _____				
4. _____				
	<u>0</u>			

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

Hydrophytic vegetation present

Background Information

Name: Cory Kwolek		
Date: 11/8/2023		
Affiliation: Environmental Solutions & Innovations, Inc.		
Address: 4525 Este Ave., Cincinnati, OH 45232		
Phone Number: 937-671-2103		
e-mail address: ckwolek@envsi.com		
Name of Wetland: Wetland 1-Z		
Vegetation Communit(ies): PEM, PFO		
HGM Class(es): Emergent, Forested		
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. Please see Figures 1 and 2 in associated Ecological Survey Report.		
Lat/Long or UTM Coordinate	41.057472	-83.709640
USGS Quad Name		Findlay
County		Hancock
Township		Liberty
Section and Subsection		OH01 T1N R10E SN9
Hydrologic Unit Code		041000080304
Site Visit		7/1/2022
National Wetland Inventory Map		N/A
Ohio Wetland Inventory Map		N/A
Soil Survey		SnA
Delineation report/map		Yes

Name of Wetland: Wetland 1-Z	
Wetland Size (acres, hectares):	0.32 ac
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
Please see Figures 1 and 2 in associated Ecological Survey Report.	
Comments, Narrative Discussion, Justification of Category Changes:	
Final score : 23	Category: 1

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the “scoring boundaries” of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the “jurisdictional boundaries.” For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland’s jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland’s scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	✓	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	✓	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	✓	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	✓	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		✓
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		✓

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	<input checked="" type="radio"/> NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	<input checked="" type="radio"/> NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	<input checked="" type="radio"/> NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	<input checked="" type="radio"/> NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	<input checked="" type="radio"/> NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	<input checked="" type="radio"/> NO Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	<input checked="" type="radio"/> NO Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	<input checked="" type="radio"/> NO Go to Question 8b

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	<input checked="" type="radio"/> NO Go to Question 9a
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	<input checked="" type="radio"/> NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	<input checked="" type="radio"/> NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	<input checked="" type="radio"/> NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	<input checked="" type="radio"/> NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	<input checked="" type="radio"/> NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	<input checked="" type="radio"/> NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	<input checked="" type="radio"/> NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
<i>Lythrum salicaria</i>	<i>Zygadenus elegans var. glaucus</i>	<i>Calla palustris</i>	<i>Carex cryptolepis</i>	<i>Calamagrostis canadensis</i>
<i>Myriophyllum spicatum</i>	<i>Cacalia plantaginea</i>	<i>Carex atlantica var. capillacea</i>	<i>Carex lasiocarpa</i>	<i>Calamagrostis stricta</i>
<i>Najas minor</i>	<i>Carex flava</i>	<i>Carex echinata</i>	<i>Carex stricta</i>	<i>Carex atherodes</i>
<i>Phalaris arundinacea</i>	<i>Carex sterilis</i>	<i>Carex oligosperma</i>	<i>Cladium mariscoides</i>	<i>Carex buxbaumii</i>
<i>Phragmites australis</i>	<i>Carex stricta</i>	<i>Carex trisperma</i>	<i>Calamagrostis stricta</i>	<i>Carex pellita</i>
<i>Potamogeton crispus</i>	<i>Deschampsia caespitosa</i>	<i>Chamaedaphne calyculata</i>	<i>Calamagrostis canadensis</i>	<i>Carex sartwellii</i>
<i>Ranunculus ficaria</i>	<i>Eleocharis rostellata</i>	<i>Decodon verticillatus</i>	<i>Quercus palustris</i>	<i>Gentiana andrewsii</i>
<i>Rhamnus frangula</i>	<i>Eriophorum viridicarinarum</i>	<i>Eriophorum virginicum</i>		<i>Helianthus grosseserratus</i>
<i>Typha angustifolia</i>	<i>Gentianopsis spp.</i>	<i>Larix laricina</i>		<i>Liatris spicata</i>
<i>Typha xglauca</i>	<i>Lobelia kalmii</i>	<i>Nemopanthus mucronatus</i>		<i>Lysimachia quadriflora</i>
	<i>Parnassia glauca</i>	<i>Scheuchzeria palustris</i>		<i>Lythrum alatum</i>
	<i>Potentilla fruticosa</i>	<i>Sphagnum spp.</i>		<i>Pycnanthemum virginianum</i>
	<i>Rhamnus alnifolia</i>	<i>Vaccinium macrocarpon</i>		<i>Silphium terebinthinaceum</i>
	<i>Rhynchospora capillacea</i>	<i>Vaccinium corymbosum</i>		<i>Sorghastrum nutans</i>
	<i>Salix candida</i>	<i>Vaccinium oxycoccos</i>		<i>Spartina pectinata</i>
	<i>Salix myricoides</i>	<i>Woodwardia virginica</i>		<i>Solidago riddellii</i>
	<i>Salix serissima</i>	<i>Xyris difformis</i>		
	<i>Solidago ohioensis</i>			
	<i>Tofieldia glutinosa</i>			
	<i>Triglochin maritimum</i>			
	<i>Triglochin palustre</i>			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: A&P Fostoria to Lima

Rater(s): Beth Hollinden, Chris Dawison

Date: 7/1/22

wetland 1-2

2	2
max 6 pts	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- >50 acres (>20.2ha) (6 pts)
- 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- 10 to <25 acres (4 to <10.1ha) (4 pts)
- 3 to <10 acres (1.2 to <4ha) (3 pts)
- 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- <0.1 acres (0.04ha) (0 pts)

4	6
max 14 pts	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

9	15
max 30 pts	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- High pH groundwater (5)
- Other groundwater (3)
- Precipitation (1)
- Seasonal/Intermittent surface water (3)
- Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- >0.7 (27.6in) (3)
- 0.4 to 0.7m (15.7 to 27.6in) (2)
- <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- None or none apparent (12)
- Recovered (7)
- Recovering (3)
- Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- 100 year floodplain (1)
- Between stream/lake and other human use (1)
- Part of wetland/upland (e.g. forest), complex (1)
- Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- Semi- to permanently inundated/saturated (4)
- Regularly inundated/saturated (3)
- Seasonally inundated (2)
- Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed	
<input type="checkbox"/> ditch	<input type="checkbox"/> point source (nonstormwater)
<input type="checkbox"/> tile	<input checked="" type="checkbox"/> filling/grading
<input type="checkbox"/> dike	<input type="checkbox"/> road bed/RR track
<input type="checkbox"/> weir	<input type="checkbox"/> dredging
<input type="checkbox"/> stormwater input	<input type="checkbox"/> other _____

9	24
max 20 pts	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- None or none apparent (4)
- Recovered (3)
- Recovering (2)
- Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- Excellent (7)
- Very good (6)
- Good (5)
- Moderately good (4)
- Fair (3)
- Poor to fair (2)
- Poor (1)

4c. Habitat alteration. Score one or double check and average.

- None or none apparent (9)
- Recovered (6)
- Recovering (3)
- Recent or no recovery (1)

Check all disturbances observed	
<input checked="" type="checkbox"/> mowing	<input type="checkbox"/> shrub/sapling removal
<input type="checkbox"/> grazing	<input type="checkbox"/> herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> clearcutting	<input checked="" type="checkbox"/> sedimentation
<input type="checkbox"/> selective cutting	<input type="checkbox"/> dredging
<input type="checkbox"/> woody debris removal	<input type="checkbox"/> farming
<input type="checkbox"/> toxic pollutants	<input type="checkbox"/> nutrient enrichment

24
subtotal this page

Site: AEP Fostoria to Linia Rater(s): Beth Hollinden, Chris Dawson Date: 7/1/2022

Wetland 1-Z

24

subtotal first page

0 24

max 10 pts subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- Bog (10)
- Fen (10)
- Old growth forest (10)
- Mature forested wetland (5)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- Lake Erie coastal/tributary wetland-restricted hydrology (5)
- Lake Plain Sand Prairies (Oak Openings) (10)
- Relict Wet Prairies (10)
- Known occurrence state/federal threatened or endangered species (10)
- Significant migratory songbird/water fowl habitat or usage (10)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-1 23

max 20 pts subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- Aquatic bed
- Emergent
- Shrub
- Forest
- Mudflats
- Open water
- Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- High (5)
- Moderately high(4)
- Moderate (3)
- Moderately low (2)
- Low (1)
- None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5)
- Moderate 25-75% cover (-3)
- Sparse 5-25% cover (-1)
- Nearly absent <5% cover (0)
- Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- Vegetated hummocks/tussocks
- Coarse woody debris >15cm (6in)
- Standing dead >25cm (10in) dbh
- Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

23

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1. Critical Habitat	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES <input checked="" type="radio"/> NO	If yes, Category 1.
	Question 6. Bogs	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 7. Fens	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES <input checked="" type="radio"/> NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES <input checked="" type="radio"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES <input checked="" type="radio"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES <input checked="" type="radio"/> NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES <input checked="" type="radio"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
Question 10. Oak Openings	YES <input checked="" type="radio"/> NO	If yes, Category 3	
Question 11. Relict Wet Prairies	YES <input checked="" type="radio"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.	
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	9	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersions, microtopography	-1	
	TOTAL SCORE	23	Category based on score breakpoints Category 1

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	<input checked="" type="radio"/> NO	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="radio"/> NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	<input checked="" type="radio"/> NO	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (<i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	<input checked="" type="radio"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input type="radio"/> NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input checked="" type="radio"/> NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	<input checked="" type="radio"/> NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category

Choose one	<input checked="" type="radio"/> Category 1	<input type="radio"/> Category 2	<input type="radio"/> Category 3
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End of Ohio Rapid Assessment Method for Wetlands.