

Letter of Notification for the Baku 765 kV Extension No. 1 Transmission Line Project



PUCO Case No. 26-0869-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.

September 3, 2026

LETTER OF NOTIFICATION FOR BAKU 765 KV EXTENSION NO. 1 TRANSMISSION LINE PROJECT

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.

Baku 765 kV Extension No. 1 Transmission Line Project

4906-6-05 Accelerated Application Requirements

AEP Ohio Transmission Company, Inc. (AEP, 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 (Adm.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 is proposing the Baku 765 kilovolt (kV) Extension No. 1 Transmission Line Project (the Project), located in Scioto Township, Pike County, Ohio. The Project involves cutting into the existing Baker–Don Marquis 765 kV Transmission Line and building approximately 1.4 miles of new 765 kV transmission line to the south side of the Company's proposed Baku 765 kV Station Project (see Case No. 26-0867-EL-BLN). Approximately 0.8 miles of the Project involves building a temporary 765 kV transmission line around the west side of the Company's proposed Baku 765kV Station Project to accommodate the customer's Artemis Station construction but will be removed upon completion of AEP's proposed Baku 765 kV Station Project. The location of the Project is shown on **Maps 1 and 2 in Appendix A**.

The Project meets the requirements for a Letter of Notification (LON), as defined by Items 1(d)(ii) of Appendix A to Adm.Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:

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(d) Line(s) primarily needed to attract or meet the requirements of a specific customer or customers as follows:

(ii) Any portion of the line is on property owned by someone other than the specific customer or applicant.

The Project has been assigned Case No. 26-0869-EL-BLN.

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 Project is necessary to serve a large customer load request in Piketon, Ohio. The customer has requested approximately **3,066 megawatts (MW)** of electric service as the first phase of a development that is expected to ultimately require approximately **9,200 MW** of load-serving capability. Additional upgrades will be necessary to meet the customer's load demand and will be filed separately with OSPB. AEP has an obligation to provide electric service to support the customer.

Existing transmission infrastructure in the area cannot serve the requested load. Planning evaluations determined that new **765 kV transmission infrastructure** is required to reliably serve the customer demand.

To address this need, AEP Ohio Transmission Company, Inc. will construct the new Baku 765 kV Station, approximately 50 miles of new 765 kV transmission line between Gavin Station and Baku Station, approximately 3 miles of new 765 kV transmission line extending from a cut-in of the existing Baker–Don Marquis 765 kV line asset (which is the subject of this filing), and associated customer delivery facilities.

Failure to move forward with the Project will prevent AEP from providing the transmission service necessary to support the customer's planned development and requested load growth.

AEP, PJM Interconnection, and the customer are collaborating to submit the Project and all its components through a State Agreement Approach in lieu of the traditional M3 process due to the scale of the facilities involved. As the Public Utilities Commission of Ohio's (PUCO's) Federal Energy Advocate noted in a June 2026 correspondence to the President and CEO of PJM Interconnection, this is a "critical project" pursuant to which "SB Energy has also committed to make excess generation and transmission capacity available to the grid for the benefit of American consumers by increasing energy supply and lowering energy costs, while also investing \$40 million through a Community Benefits Agreement to support the surrounding Ohio

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Communities.” Further, the Federal Energy Advocate noted that “[T]his new large-scale technology campus will support advanced research in industries such as fusion and quantum computing, strengthen national defense, and reinforce U.S. leadership in the global technology race, while also enhancing the grid, protecting Ohio ratepayers, and creating thousands of local jobs.” Ultimately, the transmission facilities will connect to AEP’s 765 kV bulk power system in Ohio and will be a significant enhancement to that power system. As such, these transmission investments—though fully paid for by SB Energy—will provide significant benefits to other Ohio retail customers.

The Project was not included in the Company’s 2026 Long-Term Forecast Report because the solution was not known at the time of filing.

Ohio Substitute House Bill 15, effective in August 2025, requires applicants for certificates of environmental compatibility and public need for the construction of new transmission lines to submit a summary of studies that have been made by or for the applicant of cost-effective advanced transmission technologies that maximize the value, expand the capacity, or improve the reliability of the facility (Ohio Revised Code 4906.06(A)(7)). The statutory definition of advanced transmission technology includes advanced conductors, defined as “conductor with a direct current electrical resistance that is at least ten per cent lower than existing conductors of a similar diameter on the electric transmission system while simultaneously increasing the energy carrying capacity by at least seventy-five per cent” (Ohio Revised Code 4906.01(N)). In subsequent rulemaking, the OPSB determined that the advanced transmission technology requirements in Substitute House Bill 15 are inapplicable to short, gen-tie lines—*In the Matter of the Consideration of Ohio Power Siting Board Rules, as Required by Substitute House Bill Number 15*, Case No. 25-757-GE-BRO, Finding and Order, Paragraph 9 (Nov. 20, 2025). Due to the nature of this Project, the Company determined that no advanced transmission technologies, as defined by the Ohio Revised Code, are required or would be cost-effective to implement. advanced transmission technologies do not offer enough benefits in lieu of a traditional/robust solution needed for this specific case.

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.

Map 1, in Appendix A, shows the location of the Project in relation to existing transmission lines and substations. **Map 2, in Appendix A,** identifies the Project components on a 2024 aerial photograph.

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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.

Due to space constraints and design needs at the site and at the request of the customer, the customer's Artemis Station requires additional space in grading needs that will encroach on AEP's existing 765 kV transmission line easement. To support the customer's need and at the customer's request, the Company will be modifying the existing 765 kV line, providing additional space to accommodate their station build. The temporary alignment maintains the existing service from Hanging Rock to Don Marquis while accommodating the customer's request.

The Project is located within properties that are currently in negotiations to be purchased by the customer. The proposed location is the most suitable location for the Project based on the customer's proposed development, the Company's proposed Baku 765 kV Station location, and existing facilities in the area. Other alternatives would require more significant impacts to neighboring properties, as opposed to remaining on the customer's property.

The Project is predominantly located on undeveloped land and is not anticipated to require impacts to any delineated wetland or streams. Approximately 14.5 acres of tree clearing is anticipated for the Project. Based on customer development plans, the location of the Project minimizes impacts on the community and the environment to the best extent practicable while considering the engineering and construction needs of the customer. The Project also represents the most suitable location and most appropriate solution for meeting the Company's and customer's needs.

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 Adm.Code 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

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necessary for the construction, operation, or maintenance of the Project. The letter will comply with all requirements of Adm.Code Section 4906-6-08(B). The Company maintains a website (<http://aeptransmission.com/ohio/>) that hosts an electronic copy of this LON and the public notice of this LON. An electronic copy of the LON will be served to the public library in each political subdivision affected by this Project. In addition, the Company retains right-of-way (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 February 2027, with an anticipated in-service date of November 2028.

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 U.S. Geological Survey 1:24,000 Wakefield quadrangle map. **Map 2**, in **Appendix A**, identifies the location of the Project area on a 2024 aerial photograph.

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 is located within properties that are currently in negotiations to be purchased by the customer. The Project requires new and temporary easement agreements. A list of properties required for the Project are provided in **Table 1** below.

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Table 1 – Property Agreements

Property Parcel Number	Agreement Type	Easement or Option Obtained (Yes/No)
200587000000	New Easement Agreement	No
200245010000	New Easement Agreement Temporary Easement Agreement	No
200274000000	New Easement Agreement	No
200175000000	New Easement Agreement Temporary Easement Agreement	No
200174000000	Temporary Easement Agreement	No
200005000000	Temporary Easement Agreement	No
200004000000	Temporary Easement Agreement	No
200003000000	Temporary Easement Agreement	No
200006000000	Temporary Easement Agreement	No

The easement form exhibit provided in **Appendix B** represents the minimum rights the Company would require to construct, operate, and maintain these facilities.

B(9) Technical Features

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

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

The Baku 765 kV Extension No. 1 Transmission Line Project is estimated to include the following:

Voltage:	765 kV
Conductors:	6-bundle 795 kilo-circular mil (kcmil) 45/7 aluminum conductor steel-reinforced (ACSR) "Tern"
Static wire:	7#8 Alumoweld
Insulators:	Porcelain
ROW width:	200–220 feet
Structure Type:	3 single circuit lattice tower dead-ends 1 single circuit lattice tower running corner 1 single circuit lattice tower tangent

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

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

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.

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

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

The estimated capital cost of the project.

The cost estimate for the proposed Project, which comprises applicable tangible and capital costs, is approximately \$13.2 million using a Class 4 estimate. The customer is committed to paying for the total

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cost of the Project, including the proposed temporary and permanent 765 kV transmission lines outlined in this application, to help avoid increases to transmission rates for Ohio residents.

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 Project area, totaling approximately 34 acres, is located within Scioto Township in Pike County, Ohio. The Project area and its vicinity is rural, predominated by agricultural land (hayfield/pasture) and undeveloped forest, with low-density residential land use scattered throughout. The Project area is located southwest of the former U.S. Department of Energy Portsmouth (PORTS) facility and adjacent east of U.S. Highway 23 (US-23). Based on publicly available data, no schools, parks, places of worship, cemeteries, wildlife management areas, or nature preserve lands were identified in proximity to the Project.

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 and its immediate surrounding area are characterized by agricultural land (hayfield/pasture and cultivated cropland) as well as undeveloped forest, with low-density residential land beyond. Approximately 5 acres of agricultural land (hayfield/pasture) are located within the Project area.

Based on data received from the Pike County Auditor's office on July 22, 2026, there are no agricultural district parcels within the potential disturbance area of the Project. Additionally, no Ohio Department of Agriculture easements are located within the Project area.

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.

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The Company's consultant is currently conducting Phase I Archaeological and Phase I History/Architectural surveys for the Project, involving subsurface testing and visual inspection. The findings and results of the coordination with the State Historic Preservation Office will be provided to OPSB once it has been received.

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 summary of potential permits and authorizations for the Project is provided in **Table 2** below. There are no other known local, state, or federal requirements that must be met prior to commencement of the Project.

Table 2 – Potential Permits

Permit/Authorization/Coordination	Agency	Date
Storm Water Pollution Prevention Plan	Ohio Environmental Protection Agency	Expected December 2026
	Pike County	
Notice Criteria	Federal Aviation Administration	Coordination in progress; final review expected by end of Q4 of 2026. No further action anticipated.
Road Use Maintenance Agreement	Pike County	Submitting September 2026
County Road (CR) Crossing	Pike County	CR 59 (Big Run Road) Permit to be submitted September 2026
Clean Water Act Section 404/401	U.S. Army Corps of Engineers	Not anticipated
	Ohio Environmental Protection Agency	
Archaeology/Architectural	State (Ohio) Historic Preservation Office	Coordination in progress
Threatened and Endangered Species	U.S. Fish and Wildlife Service	Coordination completed on August 13, 2026
Threatened and Endangered Species	Ohio Department of Natural Resources	Coordination in progress

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, threatened species, rare species, species proposed for listing, species under review for 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.

Coordination letters were submitted to the U.S. Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources (ODNR), seeking an environmental review of the Project for potential impacts to state and/or federally protected species. As of the date of this application, a response from ODNR has not yet been received. However, the ODNR response obtained for the Baku 345 kV Station Project was referenced due to its overlap and proximity to the Baku 765 Extension No. 1 Transmission Line Project (see **Appendix D**). USFWS provided a response on August 13, 2026. Copies of the agencies' responses are presented in **Appendix C**.

Table 3-6 of the Baku 765 kV Extension No. 1 and No. 2 Environmental Survey Report (ESR) and **Table 3-7** of the Baku 765 kV Station ESR, included in **Appendix D**, list the federal and state threatened or endangered species in the Project area.

Summer bat surveys were conducted for the Baku 765 kV Station Project following current USFWS guidelines. No Indiana bats (*Myotis sodalis*) or northern long-eared bats (*Myotis septentrionalis*) were detected or captured during the surveys. However, federally proposed tricolored bats (*Perimyotis subflavus*) were captured/detected during the survey, thereby confirming the presence of this species in the Project area. Because the Project will result in a small amount of forest clearing relative to the available habitat in the immediately surrounding area, the USFWS indicates that habitat removal is unlikely to result in significant impacts to the tricolored bats. However, because the tricolored bats are present in the Project area, clearing of trees ≥ 3 inches diameter at breast height (dbh) during the summer roosting season (April 1 and September 30) may result in direct take of individuals (see **Appendix C**). Therefore, both ODNR and USFWS recommend clearing trees between October 1 and March 31, and the applicant will adhere to this recommendation.

Construction impacts to protected species are not anticipated based on the nature of the proposed Project activities and habitat characteristics of the surrounding vicinity.

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 April and August 2026, the Company's consultant conducted wetland and stream delineation surveys for a combined 465.5-acre Environmental Survey Area (ESA) that encompasses the Project area and Baku 765 kV Station Project limits (see **Appendix D**). Land uses within the surveyed areas comprise successional hardwood woodlands, agricultural land use (pasture), developed land uses, and previously developed areas in varying stages of reversion to native habitat types. Within the combed ESA, a total of ten wetlands, 28 streams, and four ponds were identified. Within the Project area, seven streams, one wetland, and one pond were identified. However, the Project is not anticipated to require impacts to the delineated streams, wetland, or pond.

Approximately 14.5 acres of tree clearing is anticipated for the Project.

The Federal Emergency Management Agency Flood Insurance Rate Map (map number 39131C0325C) was reviewed to check for the presence of floodplains/flood hazard areas within the Project area. No mapped 100-year floodplain or regulatory floodway areas are located within the Project fenceline.

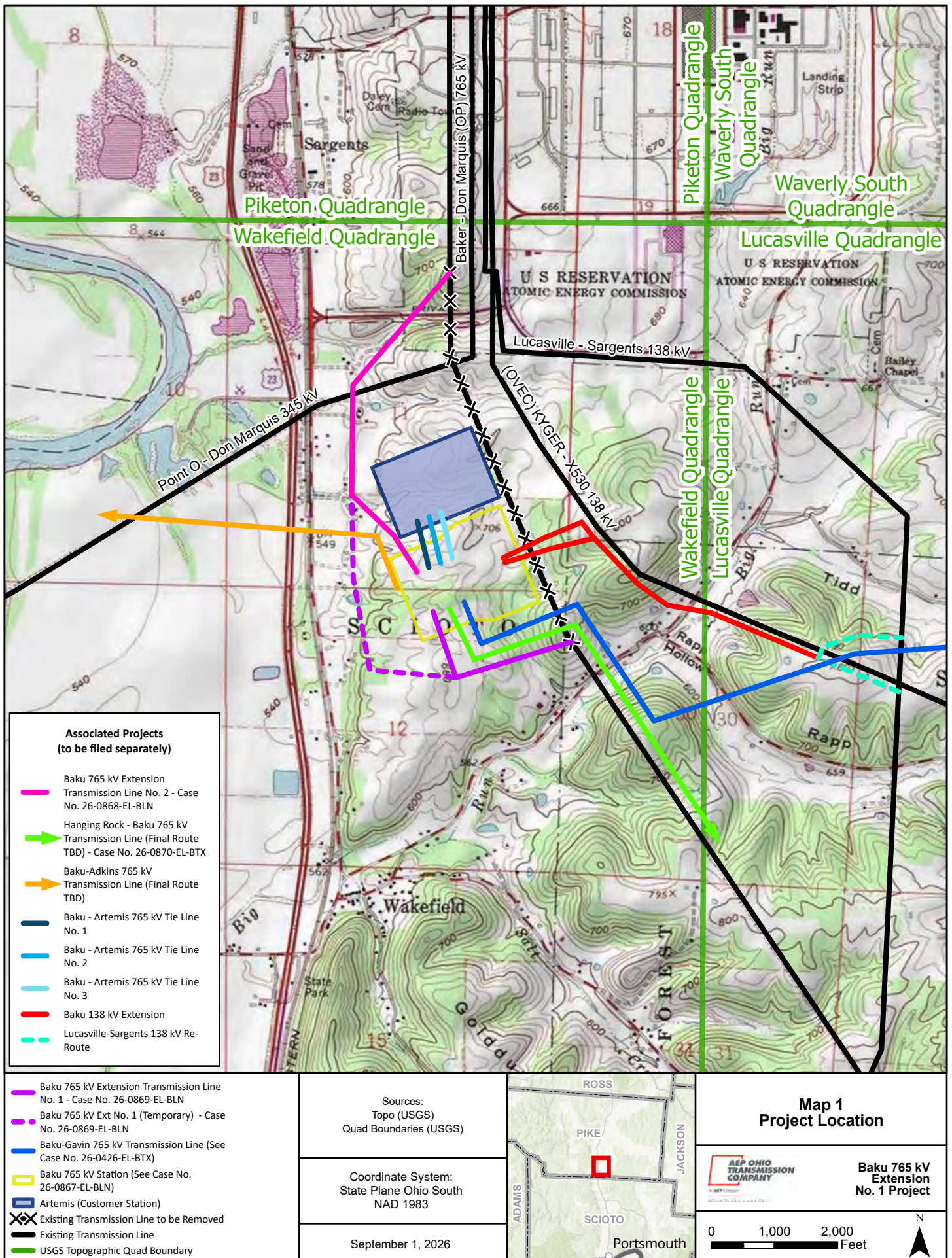
Based on a review of the Protected Areas Database of the United States as well as the Conservation Easement Database, there are no state or national parks, forests, wildlife areas, or mapped conservation easements in the vicinity of the Project.

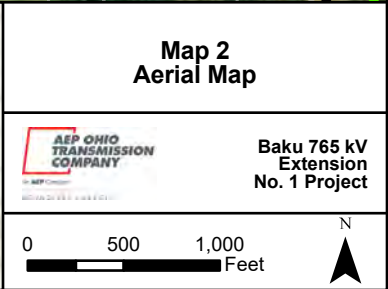
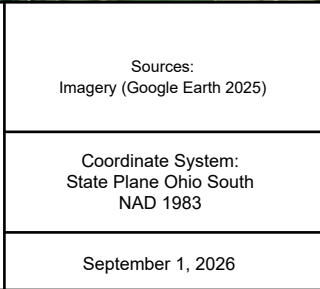
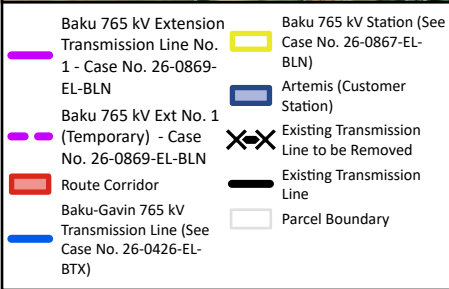
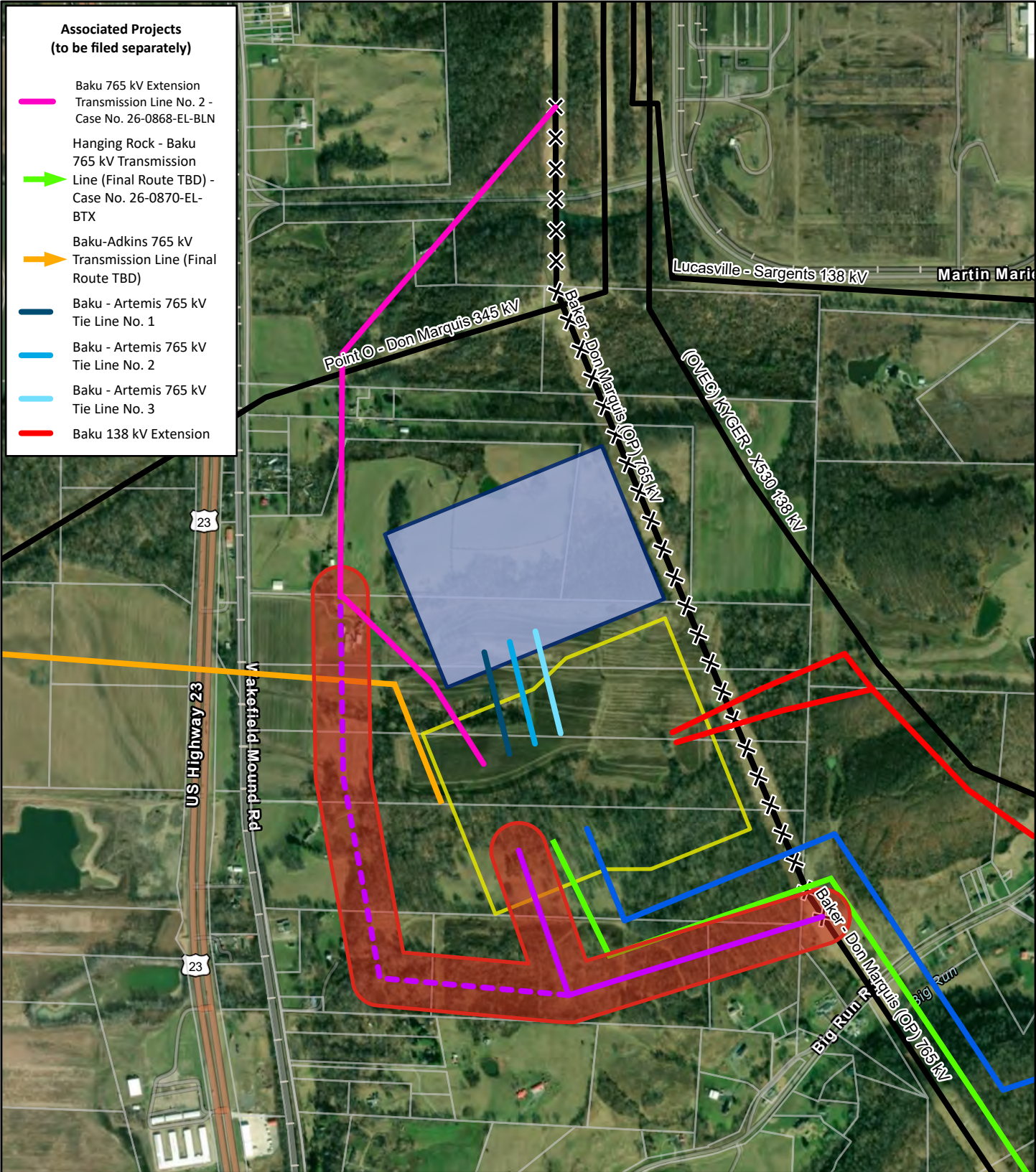
B(10)(g) Unusual Conditions

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





Appendix B Form Easement

Line Name:
Line No.:
Easement No.:

EASEMENT AND RIGHT OF WAY

On this _____ day of _____, 202__, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and the covenants hereinafter set forth, _____ [landowner name and marital status] _____, whose address is _____ (“Grantor”), whether one or more persons, hereby grants, sells, conveys, and warrants to AEP Ohio Transmission Company, Inc., an Ohio corporation, a unit of American Electric Power, whose principal business address is 1 Riverside Plaza, Columbus, Ohio 43215 (“AEP”), and its successors and affiliates, a permanent easement and right of way (“Easement”) for a single electric transmission line, not to exceed 765 kV, and for internal communication purposes related to the supply of electricity (the “Transmission Line”), being, in, on, over, under, through and across the following described lands of Grantor, situated in the State of Ohio, County of _____, and Township of _____ and being a part of _____ [abbreviated legal description] _____ (“Grantor’s Property”).

Contingent provision: [Spouse of Grantor, if any] join herein for the purpose of releasing all dower rights in regard to the Easement.

Grantor claims title by _____ [name of vesting instrument] _____ dated _____ from _____ [name of first grantor] _____, recorded on _____ at _____ [record volume, page] _____ in the _____ County Recorder’s Office.

Auditor/Key/Tax Number: _____ [Tax Parcel Number] _____

The Easement Area is more fully described and depicted on Exhibit “A”, a copy of which is attached hereto and made a part hereof (“Easement Area”).

GRANTOR FURTHER GRANTS AEP THE FOLLOWING RIGHTS:

The right, now or in the future, to construct, reconstruct, operate, maintain, alter, improve, inspect, patrol, protect, repair, remove, replace, upgrade and relocate within the Easement Area, structures and appurtenant equipment necessary for the Transmission Line.

The right, in AEP’s discretion, now or in the future, to cut down, trim or remove, and otherwise control, any and all trees, overhanging branches, vegetation or brush situated within the Easement Area and any temporary access roads or temporary workspaces identified on Exhibit “A” outside the Easement Area. Provided, however, that AEP shall not use herbicides or similar products for these purposes on any portions of the Grantor’s Property maintained for residential or agricultural use. AEP shall also have the right to cut down, trim or remove trees situated on Grantor’s Property which adjoin the Easement Area within the Tree Protection Zone when in the reasonable opinion of AEP those trees are dead, dying, diseased, leaning, or structurally defective and may endanger

the safety of, or interfere with the construction, operation or maintenance of AEP's facilities or ingress or egress to, from or along the Easement Area. The Tree Protection Zone extends eighty feet on all sides of the Easement Area depicted in Exhibit A.

AEP shall also have the right of reasonable ingress and egress over, across and upon the Easement Area only, unless additional access routes are depicted in the attached Exhibit A. Provided, however, that in the event access over, across and upon the Easement Area – and access routes, if any, shown in Exhibit A – shall become blocked or otherwise rendered unsafe or hazardous for use, AEP may temporarily access the Easement Area from other points across Grantor's Property, so long as that access is both reasonable and limited to the duration of the interference or safety hazard. AEP shall return the access area to its preexisting condition or pay damages to Grantor.

AEP shall also have the right to use temporary workspaces and temporary access roads outside the Easement Area, if any are shown on Exhibit A, in connection with its initial construction of the Transmission Line. AEP may shift the location of such temporary workspaces, if any, up to twenty (20) feet in any direction, and also shift the location of such temporary access roads, if any, up to twenty (20) feet in any direction, as field conditions or other requirements dictate. Upon completion of the overall Transmission Line project, but in no event later than two (2) years following the start of construction on Grantor's Property, AEP shall remove its equipment from all such temporary workspaces and temporary access roads outside the Easement Area, and AEP's temporary rights outside of the Easement Area shall automatically cease, terminate and revert to Grantor. AEP shall return any such areas to their preexisting condition or pay damages to Grantor as soon as practicable.

THIS GRANT IS SUBJECT TO THE FOLLOWING CONDITIONS:

Grantor reserves the right to cultivate annual crops, pasture, construct fences (provided gates are installed that adequately provide AEP the access rights conveyed herein) and roads or otherwise use Grantor's Property encumbered by this Easement in any way not inconsistent with the rights herein granted. In no event, however, shall Grantor, its heirs, successors, affiliates and assigns plant or cultivate any trees or place, construct, install, erect or permit any temporary or permanent building, structure, improvement or obstruction including but not limited to, storage tanks, billboards, signs, sheds, dumpsters, light poles, water impoundments, above ground irrigation systems, swimming pools or wells, or permit any alteration of the ground elevation, over, or within the Easement Area. AEP may, at Grantor's cost, remove any structure or obstruction if placed within the Easement Area, and may re-grade any alterations of the ground elevation within the Easement Area.

AEP agrees to repair or pay Grantor for actual damages sustained by Grantor to crops, fences, gates, irrigation and drainage systems, drives, or lawns that are permitted herein, when such damages arise out of AEP's exercise of the rights herein granted.

Pursuant to R.C. 163.02, Grantor possesses a right of repurchase pursuant to R.C. 163.211 if AEP decides not to use Grantor's Property for the purpose stated in the appropriation petition and Grantor provides timely notice of a desire to repurchase.

This instrument contains the complete agreement, expressed or implied between the parties herein and shall inure to the benefit of and be binding on their respective successors, affiliates, heirs, executors, and administrators.

This Easement may be executed in counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

Any remaining space on this page left intentionally blank. See next page(s) for signature(s).

IN WITNESS WHEREOF, said Grantor hereunto set their hand(s) and seal(s) as of the last date set forth below.

GRANTOR

SIGNATURE BLOCK FOR A BUSINESS ENTITY / TRUST:

[name of entity/trust & kind of business association identified]

By: _____

Print name: _____

Its Authorized Signer

State of Ohio §

§ SS:

County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 202__ by _____, the _____ [title] _____ of _____ [name of entity/trust] _____, a/an _____ [state of incorporation and type of entity/trust] _____, on behalf of _____ [name of entity/trust] _____.

Notary

SIGNATURE BLOCK FOR AN INDIVIDUAL:

[Typed name of individual] _____

State of Ohio §

§ SS:

County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 202__ by _____ [name of individual] _____.

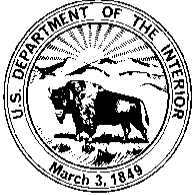
Notary

This instrument prepared by Marland Turner, American Electric Power Service Corporation, 1 Riverside Plaza, Columbus, OH 43215 for and on behalf of AEP Ohio Transmission Company, Inc., a unit of American Electric Power.

When recorded return to: American Electric Power – Transmission Right of Way, 8600 Smith's Mill Road, New Albany, OH 43054.

Appendix C Agency Coordination Letters

United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994



August 13, 2026

Project Code: 2026-0127100

Dear Mr. Renner:

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 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. Bridges and culverts have also been used as roosts. Additionally, northern long-eared bats have been observed roosting in other human-made structures, such as buildings, barns, 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 Restrictions for Federally Listed Bat Species: The proposed project is in the vicinity of one or more confirmed records of northern long-eared bats. 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. If bridges or culverts will be impacted, we recommend reviewing Appendix K in the most recent "Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines" to determine if the bridge/culvert may be suitable roost habitat. We recommend impacts to suitable bridges and culverts only occur from October 1 and March 31. These seasonal restrictions are recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

If implementation of these seasonal restrictions is not possible, because the proposed project is $\geq$ 1.5 miles from the northern long-eared bat capture/detection location(s), a summer survey may be conducted to document the presence or absence of Indiana bats and northern long-eared bats at the project site. The summer survey must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. In Ohio, summer mist net surveys may only be conducted between June 1 and August 15. If Indiana bats and northern long-eared bats are not detected during the survey, then tree clearing and impacts to bridge/culvert roosts may occur at any time of the year.

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 also warranted. Portal surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office.

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The proposed project is in the vicinity of one or more recent confirmed records of tricolored bats. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

On December 12, 2024 the Service proposed to list the monarch butterfly (*Danaus plexippus plexippus*) as threatened under the ESA. Monarch butterflies are found throughout Ohio and some populations migrate vast distances across multiple generations each year. Many monarchs fly between the U.S., Mexico and Canada – a journey of over 3,000 miles. Monarch populations have declined significantly in recent years. Threats include habitat loss – particularly the loss of milkweed, the monarch caterpillar's sole food source – and mortality resulting from pesticide use. The Service recommends the following actions to maintain habitat and avoid impacts to monarchs in Ohio: revegetate disturbed areas with native plant species including nectar-producing plants and milkweed endemic to the area; limit mowing monarch habitat from March 15 to August 31 when monarchs are breeding and from September 1 to October 31 when large numbers of monarchs are migrating; and avoid the use of pesticides and herbicides in and near monarch habitat.

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.

Bald Eagle: The project is in the range of the bald eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). We recommend that you visit <https://ohiodnr.gov/discover-and-learn/animals/birds/bald-eagle> to determine if the project is within 0.5 mile of a documented eagle nest. Additionally, because not all eagle nests in the state have been mapped, we recommend that an on-site examination be conducted to determine if any large stick nests are visible from project area. If the project is within 0.5 mile of a documented eagle nest or the on-site examination reveals the presence of a potential eagle nest, we recommend visiting <https://www.fws.gov/story/do-i-need-eagle-take-permit> to determine if an eagle take permit is required.

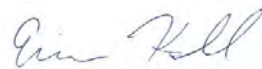
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing 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, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

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,



Erin Knoll
Field Office Supervisor

cc: Matthew.Stooksbury@dnr.ohio.gov
Eileen.Wyza@dnr.ohio.gov



Department of
Natural Resources
ohiodnr.gov

Mike DeWine, Governor
Jim Tressel, Lt. Governor
Mary Mertz, Director

Office of Real Estate & Land Management

Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

May 15, 2026

Anthony Glenn
WSP USA Inc.
312 Elm Street #2500
Cincinnati, Ohio 45202

Re: 26-0656_Baku Station

Project: The proposed project involves the construction of an electrical substation.

Location: The proposed project is located in Scioto Township, Pike County, Ohio.

Center Coordinates: (38.9857, -83.0149)

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 within one mile of the project area:

Blue Sucker (*Cyprinus elongatus*), T
Fawnsfoot (*Truncilla donaciformis*), SC
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. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

Location records for the species listed above are provided in a shapefile attachment to this letter. Species location information will not be disclosed, published, or distributed beyond the scope of your

project. 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 project is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree clearing is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree clearing inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, 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 endangered 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 bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in clusters of dead leaves on tree limbs. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree and/or tree limb clearing 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 a Diameter Breast Height (DBH) $\geq 20''$ if possible.

For every project, the DOW also recommends that a winter bat habitat assessment is conducted to determine if potential hibernacula are present within the project area. This is to limit possible disturbances that seasonal tree clearing and/or subsurface work (e.g., trenching, blasting, etc.) may cause to hibernating bats. Potential hibernacula include rocky outcroppings, caves, and underground mines. Direction on how to conduct winter habitat assessments can be found in the joint guidance [OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE \(OH-FIELD OFFICE\) JOINT GUIDANCE FOR BAT SURVEYS](#). If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile permanent tree clearing buffer around the hibernaculum entrance. Limited summer or winter tree clearing may be acceptable after consultation with the DOW. If a habitat assessment for projects involving subsurface disturbance finds that a potential hibernaculum is present within 5 miles of the project area, please consult with Eileen Wyza for project recommendations. If no tree clearing 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*)

Northern riffleshell (*Epioblasma torulosa rangiana*)

rayed bean (*Villosa fabalis*)

State Endangered

Ohio pigtoe (*Pleurobema cordatum*)
washboard (*Megalonias nervosa*)
yellow sandshell (*Lampsilis teres*)

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

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

State Endangered

bigeye shiner (*Notropis boops*)
goldeye (*Hiodon alosoides*),
popeye shiner (*Notropis ariommus*),
shoal chub (*Macrhybopsis hyostoma*),
shortnose gar (*Lepisosteus platostomus*),
shovelnose sturgeon (*Scaphirhynchus platyrhynchus*),

State Threatened

blue sucker (*Cycleptus elongatus*),
channel darter (*Percina copelandi*),
paddlefish (*Polyodon spathula*)
river darter (*Percina shumardi*),

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the timber rattlesnake (*Crotalus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species. In addition to using wooded areas, the timber rattlesnake also utilizes sunlit gaps in the canopy for basking and deep rock crevices known as den sites for overwintering. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the midland mud salamander (*Pseudotriton montanus diastictus*), a state threatened species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern harvest mouse (*Reithrodontomys humulis*), a state threatened species. This species relies on early successional habitats dominated by herbaceous vegetation with less than 30% woody material. The DOW recommends that early successional habitats be preserved where possible. If early successional habitats won't be impacted, this project is not likely to impact this species.

Due to the potential for 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.

Geological Survey: The Division of Geological Survey has the following comments.

Impacts on Public and Private Water Supplies

The proposed project area is in Scioto Township in Pike County. The construction of this project is not expected to have significant impacts on public or private well yields. The Groundwater Vulnerability Index ranges from 103-189, which equates to a moderate to high groundwater vulnerability (OEPA, 2014). The construction of the facility is not expected to pose a significant groundwater contamination risk.

Groundwater Inventory

Groundwater resources are limited throughout the project area. Wells developed in bedrock are likely to yield 3 to 250 gallons per minute. Much of the project area has a yield of 3-10gpm. A small sliver in the western edge of the project area has an expected yield up to 100gpm, and another section in the western fourth of the project area has an expected yield up to 250gpm (Potucek and Others, 2025).

ODNR has record of 55 water wells drilled within one mile of the project area. These wells range in depth from 25 to 150 feet, with an average depth of 59 feet. Shale is listed as the primary aquifer on 23 of the wells. Sand and gravel is listed as the primary aquifer for 13 wells. The remaining wells are divided among several aquifers. Sustainable yields of 0 to 25 gallons per minute have been reported for 3 wells within one mile of the project area, with the average sustainable yield being 12 gallons per minute (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Water Wells).

Oil, Gas and Mining

ODNR has record of 10 oil and gas wells within one mile of the proposed project area. Most of these wells are listed as Plugged and Abandoned. 8 wells listed as plugged and abandoned. One well listed as permit expired. One well with unknown status (Ohio Department of Natural Resources, Division of Oil and Gas, Ohio Oil and Gas Wells Locator).

ODNR does not have record of any mining operations within the project area (Ohio Department of Natural Resources, Division of Mineral Resources, Mines of Ohio).

Geohazards

ODNR has record of several earthquakes recorded within 15-miles of the site. Details regarding these events are listed in the chart below:

Date	Magnitude	Distance to Site Boundary	County	Township
December 21,2014	2.0	4.74 miles	Pike	Union
March 20, 2019	2.1	9.88 miles	Scioto	Madison

Karst

Karst features usually form in areas that are covered by thin or no glacial drift and the bedrock is limestone or dolomite. The nearest verified sinkholes are 15 miles to the west of the project area. There are no sinkholes in the project area, and the underlying shale and sandstone makes formation of sinkholes unlikely. (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Karst).

Drift Thickness and Bedrock Geology

The project area lies outside of the glacial margin of the state. The uppermost bedrock unit in the project area is the Logan and Cuyahoga Formations Undivided. This unit is Mississippian-age and consists of beds of brown to gray medium grained sandstone containing lenses and beds of coarse sand grains to fine-pebble conglomerates interbedded with clayey siltstone and shale. Beds may be intertongued and intergraded. rightmost edge of project area. Underlying the Logan and Cuyahoga Formations Undivided is the Devonian and/or Mississippian-age Sunbury Shale, Berea Sandstone, and Bedford Shale Undivided. This unit is characterized by gray to brown shale and interbedded sandstone. Gray shale is the dominate lithology. vast majority of project area. Underlying the 0 is the Devonian-age Ohio and Olentangy Shales Undivided. This unit is characterized by greenish gray to gray shale. The unit is clayey and often contains disseminated pyrite. Locally this unit may contain lenses or nodules of limestone as well as thin beds of brownish-black shale in the upper portion. leftmost edge of project area. Bedrock may be exposed in outcrops and roadcuts within the boundary of the project area (Slucher et al, 2006).

Soils

According to the USDA Web Soil Survey, the project area consists primarily of soils derived from loess over Illinoian till. Fox, Omulga, and Princeton are the most common soil series found within the boundaries of the project area. These soils have a silt and sand loam texture and together cover over 81% of the project area. The Princeton Soil which makes up approximately 42% of the project area is a non-hydric soil and is not ponded. (USDA Web Soil Survey). There is a low risk of shrink-swell potential in these soils. Slopes vary, with some exceeding 30% grade. Slopes are steepest in the center of the project area (Hendershot, 1990 and USDA Web Soil Survey).

Water Resources: The Division of Water Resources has not conducted a project specific review and/or comments, however, the guidance provided below should be reviewed by the Environmental Review applicant for applicability on this project and subsequent compliance.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer [website](#) can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

Ohio Revised Code (ORC) Section 1521.16 mandates that any owner of a property or a facility that has the capacity of withdrawing 100,000 gallons per day (gpd) of water from groundwater, surface water, or both must register with the Division of Water Resources' [Water Withdrawal Facilities Registration \(WWFR\) Program](#) and report their withdrawals annually.

Additional coordination may be required depending on the location of the withdrawal and consumptive use. Permitting may be required for:

- New or increased consumptive use of water averaging 2 million gallons per day (mgd) within 30 days within the Ohio River basin.
- New or increased withdrawal and consumptive water use in the Lake Erie watershed averaging 1 million gallons per day (mgd) or more in 90 days.
- New or increased water withdrawal directly from Lake Erie averaging 2.5 million gallons per day (mgd) or more in 90 days.
- Diversion or movement of water across the Ohio River and Lake Erie basin divide.

If the project does not involve activities that are subject to water withdrawal regulatory requirements as described above, then no further action is required. For more information, visit the [Water Inventory & Planning website](#).

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

Expiration: ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.

United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994



July 23, 2026

Project Code: 2026-0073065

Re: AEP Baku Station site

Dear Mr. Sparks:

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).

We have received your summer bat survey report for the subject project. The survey was conducted following current Service guidelines. No Indiana bats (*Myotis sodalis*) or northern long-eared bats (*Myotis septentrionalis*) were detected/captured during the survey. However, the proposed endangered tricolored bats (*Perimyotis subflavus*) was captured/detected during the survey confirming presence of this species in the project action area.

Because the project will result in a small amount of forest clearing relative to the available habitat in the immediately surrounding area, habitat removal is unlikely to result in significant impacts to this species. However, because tricolored bats are present in the project area clearing of trees ≥ 3 inches diameter at breast height (dbh) during the summer roosting season may result in direct take of individuals. 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 tree removal is unavoidable, we recommend that clearing of trees ≥ 3 inches dbh at the site occur only from October 1 through March 31. Following these seasonal tree clearing restrictions should ensure that any effects to tricolored bats are insignificant or discountable.

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 tricolored bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Bald Eagle: The project is in the range of the bald eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). We recommend that you visit <https://ohiodnr.gov/discover-and-learn/animals/birds/bald-eagle> to determine if the project is within 0.5 mile of a documented eagle nest. Additionally, because not

all eagle nests in the state have been mapped, we recommend that an on-site examination be conducted to determine if any large stick nests are visible from project area. If the project is within 0.5 mile of a documented eagle nest or the on-site examination reveals the presence of a potential eagle nest, we recommend visiting <https://www.fws.gov/story/do-i-need-eagle-take-permit> to determine if an eagle take permit is required.

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, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

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,



Erin Knoll
Field Office Supervisor

cc: Matthew.Stooksbury@dnr.ohio.gov
Eileen.Wyza@dnr.ohio.gov

Hubbard, Stacey

From: Eileen.Wyza@dnr.ohio.gov
Sent: Thursday, July 23, 2026 1:18 PM
To: Lott, Keith; Dale W. Sparks
Cc: David E Roudebush; Jennifer L Walker
Subject: RE: [EXTERNAL] AEP Baku Station Site, Mist Net Survey Report
Attachments: image001.png

Hello Dale,

The Ohio Division of Wildlife (DOW) has received the summer bat survey report for the AEP Baku Station Project, conducted according to current U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources, Division of Wildlife (DOW) guidance. Because a tricolored bat was captured, tree cutting is not recommended in this area between April 1 and September 30. Limited summer tree cutting inside this buffer, as outlined in the DOW guidance for Bat Surveys and Tree clearing (May 2026) may be acceptable after further consultation with DOW. DOW approves of the proposal to seasonally clear for this project.

Thank you,



Eileen Wyza, Ph.D.
(she/her/hers)
Wildlife Biologist
Ohio Division of Wildlife
Phone: 614-265-6764
Email: Eileen.Wyza@dnr.ohio.gov

Support Ohio's wildlife. Buy a license at wildohio.gov.



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Please consider the environment before printing this email.

From: Lott, Keith <keith_lott@fws.gov>
Sent: Thursday, July 23, 2026 8:13 AM
To: Dale W. Sparks <DSparks@envsi.com>; Wyza, Eileen <Eileen.Wyza@dnr.ohio.gov>
Cc: David E Roudebush <deroudebush@aep.com>; Jennifer L Walker <jlwalker2@aep.com>
Subject: Re: [EXTERNAL] AEP Baku Station Site, Mist Net Survey Report

Dale,

Please see attached letter regarding the bat survey report you submitted to the Service.

Keith

From: Dale W. Sparks <DSparks@envsi.com>
Sent: Wednesday, July 22, 2026 2:31 PM
To: Lott, Keith <keith_lott@fws.gov>; 'eileen.wyza@dnr.ohio.gov' <eileen.wyza@dnr.ohio.gov>
Cc: David E Roudebush <deroudebush@aep.com>; Jennifer L Walker <jlwalker2@aep.com>
Subject: [EXTERNAL] AEP Baku Station Site, Mist Net Survey Report

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Please find attached a final report for AEP's Baku Station in Pike County. ESI completed netting on 5 July, but telemetry efforts for a tricolored bat continued through 11 July. We also verified previous survey efforts that detected no portals.

As previously relayed, the TCB roosted on the opposite (west) side of the Scioto River from the Baku Station. All estimated roosting locations are more than 1.5 miles from the project boundaries. On behalf of AEP, I request concurrence that winter tree clearing is sufficient to 1) avoid a take under state law and 2) avoid jeopardy under ESA for tricolored bat. Given the negative survey results, take is not reasonably likely for Indiana, northern long-eared, or little brown bats regardless of when trees are cut.



Dale W. Sparks, Ph.D.

Principal Scientist

Environmental Solutions & Innovations, Inc.
4525 Este Avenue | Cincinnati, OH 45232 | USA
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Appendix D Environmental Survey Reports



BAKU 765 KV EXTENSION NO. 1 AND NO. 2 PROJECT

ENVIRONMENTAL SURVEY REPORT



DATE: SEPTEMBER 2026

PREPARED FOR:
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1 BACKGROUND INFORMATION

1.1 INTRODUCTION

On behalf of American Electric Power (AEP) Ohio Transmission Company, Inc. (AEP Ohio Transco), WSP USA (WSP) conducted environmental surveys for the proposed Baku 765kV Extension No. 1 and No. 2 Project (Project). This report provides the methods and results of a field survey conducted on August 19 and 24, 2026, including a delineation of wetlands and other potential waters of the United States (WOTUS), general habitat characterization, and an assessment of threatened and endangered species habitat within an environmental survey corridor (ESC) encompassing portions of the Project which occur outside of the previously surveyed Baku Station Project. The portion of the Project which occur within the Baku Station Project Area are documented in the August 2026 *Baku Station Project Environmental Survey Report*. Proposed access roads and off-right of way (ROW) work areas which extend beyond the ESC will be addressed as-needed in future addenda to this document.

The Project is located within Scioto Township, Pike County, Ohio. The Project consists of the construction of two 765 kV transmission line segments connecting the proposed Baku Station (approximate coordinate 38.9829°, -83.0152°) to the existing Baker-Don Marquis 765 kV Transmission Line, with the Baku 765 kV Extension No. 1 tying in at approximate coordinate 38.9817°, -83.0074° and Baku 765 kV Extension No. 2 tying in at approximate coordinate 38.9976°, -83.0144°. The Project's ESC measures 60.3 acres and extends from the aforementioned Baku Station project, northward to the Baku 765 kV Extension No. 2 Transmission Line tie-in location with the Baker-Don Marquis 765 kV transmission line, and a short distance north and south along the existing Baker-Don Marquis 765 kV Transmission Line as well as a short distance from the Baku Station project eastward to the Baku 765 kV Extension No. 1 tie in location to the Baker-Don Marquis 765 kV Transmission Line as shown in Figure 1 (Appendix A). The Project is within the Wakefield, Ohio U.S. Geological Survey (USGS) 7.5-minute topographic map quadrangle boundaries. Table 1-1 provides an overview of the project location.

TABLE 1-1: GENERAL PROJECT INFORMATION

COUNTY:	Pike County
TOWNSHIP(S):	Scioto Township
PROJECT COORDINATES:	Baku Station: 38.9829°, -83.0152° Baker-Don Marquis Tie-In #2 : 38.9976°, -83.0144°
USGS QUADRANGLE(S):	Wakefield, Ohio
ENVIRONMENTAL SURVEY CORRIDOR SIZE (AC.):	60.3
ELEVATION RANGE (FT. ABOVE SEA LEVEL):	524-570
8-DIGIT HYDROLOGIC UNIT CODE:	05060002
12-DIGIT HYDROLOGIC UNIT CODE(S):	05060002-16-02
DATE(S) OF SURVEY :	August 19 and 24, 2026



1.2 DRAINAGE BASINS

All streams in the vicinity of the ESC drain to the Scioto River, which is a traditionally navigable waterway (TNW). The ESC is located within the Lower Scioto (Hydrologic Unit Code [HUC] 05060002) drainage basin. The ESC lies within the Big Run-Scioto River (HUC 05060002-16-02) sub watershed.



2 METHODOLOGY

WSP ecologists traversed the ESC to conduct a wetland and waters delineation on August 19 and 24, 2026. The physical boundaries of aquatic resources were recorded using a Global Positioning System (GPS) unit rated for sub-meter accuracy.

Prior to conducting field surveys, WSP ecologists completed a desktop review by analyzing several federal and state documents for the presence of wetland and streams. This review included Natural Resources Conservation Service (NRCS) soil survey data, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), USGS 7.5-minute topographic maps, and USGS National Hydrography Dataset (NHD) stream and river data as an exercise to identify the occurrence and location of potential wetlands and streams.

2.1 WETLAND DELINEATION AND ASSESSMENT

The USACE and the U.S. Environmental Protection Agency (USEPA) define wetlands as areas inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR, Part 328.3).

Wetlands were delineated according to Section 404 of the Clean Water Act, Technical Report Y-87-1 *Corps of Engineers Wetlands Delineation Manual (87 Manual)* (Environmental Laboratory, 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, (Version 2.0) (Regional Supplement)* (USACE, 2012). Representative data points were collected for wetlands and corresponding, adjacent upland areas. Wetland data was recorded on the USACE *Regional Supplement* Wetland Determination Data Forms.

Wetland vegetation communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States*, commonly referred to as the Cowardin Classification System (Cowardin et al., 1979). Wetlands within the ESC were assessed using the Ohio Environmental Protection Agency's (OEPA) *Ohio Rapid Assessment Method for Wetlands v. 5.0* (ORAM) to determine the ecological quality and level of disturbance (Mack, 2001).

2.2 STREAM DELINEATION AND ASSESSMENT

To determine the presence or absence of streams within the ESC, flowlines and surface water conveyances were evaluated for the presence of a defined bed and bank and evidence of an ordinary high-water mark (OHWM). The OHWM is defined in the USACE National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (USACE, 2025). Generally, the OHWM is identified by a line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. (USACE, 2025).

Stream assessments were conducted using the methods described in the OEPA's Methods for Assessing Habitat in Flowing Waters: Using OEPA's *Qualitative Habitat Evaluation Index* (Rankin, 2006) and *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams, Version 3* (OEPA, 2012).



2.3 THREATENED AND ENDANGERED SPECIES ASSESSMENT

WSP submitted a request for review to the USFWS and a request for Environmental Review to the Ohio Department of Natural Resources (ODNR) on August 13, 2026. Comments and recommendations were received from USFWS on August 13, 2026. An Environmental Review has not been received as of the date of this report. However, due to the ESC's proximity to the Baku Station Project, this report references the ODNR Environmental Review for the Baku Station Project, dated May 15, 2026.

Characterization of habitat types within the ESC were made based on observations collected during field work and a review of publicly available aerial imagery. Habitat within the ESC was characterized by broad types (i.e. successional hardwood woodland, cultivated cropland, old field, etc.) based on dominant canopy, plant types (forbs, sedges, grasses, trees, shrubs, etc.), presence of impervious surfaces, and the extent and type of historic/current disturbance. Assessment of potentially suitable habitat for, and subsequently potential impacts to, threatened and endangered species were based on comments from USFWS, and ODNR, the characterization of general habitat types in relation to broad habitat requirements for the individual species, and the anticipated Project footprint and standard operating procedures employed by AEP for construction of comparable projects.

Per ODNR comments and based on the protocols identified in the *Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines* and the *Ohio Division of Wildlife and U.S. Fish and Wildlife Service (OH-Field Office) Joint Guidance for Bat Surveys*, WSP performed a desktop review for potential hibernacula within a 5-mile radius of the ESC. This included a review of publicly available aerial imagery, USGS 7.5-minute topographic maps for the Wakefield and Piketon, Ohio quadrangles, as well as the ODNR *Mines of Ohio Viewer*, and the ODNR *Karst Interactive Map*. Field observations within the ESC and its immediate vicinity through all stages of the Project were also taken into account in this review.



3 RESULTS

WSP ecologists surveyed the ESC on August 19 and 24, 2026. The ecologists delineated five streams and one pond within the ESC. The results of the desktop review are provided in Figure 2 (Appendix A). The location and extents of delineated features are provided in Figure 3 (Appendix A).

3.1 DESKTOP REVIEW

3.1.1 Soils Evaluation

According to the NRCS Soil Data for Pike County, Ohio, there are 12 soil units shown within the ESC, as presented in Table 3-1 and in Figure 2 (Appendix A). The ESC is entirely underlain by soil units rated as non-hydric or predominantly non-hydric according to the soil survey data. The soils observed by the WSP ecologists during the field survey were consistent with the NRCS soil survey mapping.

TABLE 3-1: SOIL UNITS MAPPED WITHIN THE ESC

SOIL UNIT SYMBOL	SOIL UNIT NAME	PERCENT HYDRIC	HYDRIC RATING ¹	AREA WITHIN ESC (ac.)
FoA	Fox loam, 0 to 2 percent slopes	0	Non-Hydric	1.3
FoB	Fox loam, 2 to 6 percent slopes	0	Non-Hydric	4.5
FoC	Fox loam, 6 to 12 percent slopes	0	Non-Hydric	3.8
Ge	Genessee silt loam, occasionally flooded	0	Non-Hydric	7.7
GpC	Gilpin silt loam, 8 to 15 percent slopes	0	Non-Hydric	1.7
PrB	Princeton fine sandy loam, 3 to 8 percent slopes	0	Non-Hydric	6.2
PrC	Princeton fine sandy loam, 8 to 15 percent slopes	0	Non-Hydric	2.9
PrD	Princeton fine sandy loam, 15 to 30 percent slopes	0	Non-Hydric	17.3
RdD	Rarden silt loam, 15 to 25 percent slopes	0	Non-Hydric	4.6
SpF	Shelocta-Latham association, steep	0	Non-Hydric	1.2
UoA	Urban land-Omulga complex, 0 to 6 percent slopes	0	Non-Hydric	8.4
Wm	Wilbur silt loam, occasionally flooded	2	Predominantly Non-Hydric	0.8

Total Area of Non-Hydric Soils 59.6

Total Area of Precominantly Non-Hydric Soils 0.8

¹Non-Hydric = 0% hydric soil component; Predominantly Non-Hydric = 1-32%; Partially Hydric =33-65%; Predominantly Hydric = 66-99%; and All Hydric = 100%.
Source: Soil Survey Staff, NRCS. Web Soil Survey.

3.1.2 National Wetlands Inventory Review

According to the NWI map of the Wakefield, Ohio quadrangle, there are four mapped NWI features within the ESC. The location of mapped NWI features in the vicinity of the ESC is shown on Figure 2 (Appendix A).



TABLE 3-2: NWI FEATURES MAPPED WITHIN THE ESC

NWI CODE	NWI DESCRIPTION	MAP PAGE	ASSOCIATED DELINEATED RESOURCE
R4SBC	Riverine, Intermittent, Streambed, Seasonally Flooded	4	S-BE-1-002 S-BE-2-001 S-BS-1-1
R5UBH	Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded	4	S-BE-1-002
PUBGh	Palustrine, Unconsolidated Bottom, Intermittently Exposed, Diked/Impounded	4	P-BE-1-001
PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded.	5	Off-Site PEM Wetland

Source: USFWS National Wetlands Inventory Mapper

3.1.3 FEMA Floodplain Review

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), there are no areas of mapped 100-year floodplain or floodways within the ESC, as indicated in Figure 2 (Appendix A).

3.2 DELINEATION RESULTS

3.2.1 Delineated Wetlands

The WSP ecologists did not identify any wetlands within the ESC, as displayed on Figure 3 (Appendix A). An upland verification data point was collected to verify non-wetland conditions within the ESC and is included in Appendix B.

3.2.2 Delineated Streams

The WSP ecologists identified five streams totaling 2,711 linear feet (lf) within the ESC. This included two ephemeral streams totaling 781 lf and three intermittent streams totaling 1,930 lf. All streams within the ESC were evaluated with the HHEI methodology. The three intermittent streams are likely to be considered RPWs and possess a continuous surface water connection to the Scioto River. Therefore, the identified intermittent streams are likely to be considered jurisdictional by the USACE. It should be noted that the USACE will make the final determination of jurisdictional status.

The location of the identified streams within the ESC are shown in Figure 3 (Appendix A). Table 3-3 provides waterbody name, flow regime, stream length, field evaluation data, and jurisdictional status. The completed OEPA HHEI forms as well as representative photographs of each delineated stream are provided in Appendix C.



TABLE 3-3: STREAMS DELINEATED WITHIN THE ESC

STREAM ID	LOCATION		STREAM NAME	STREAM TYPE	DELINEATED LENGTH ¹ (FEET)	BANKFULL WIDTH (FEET)	OHWM WIDTH (FEET)	FIELD EVALUATION	
	LAT	LONG						METHOD (SCORE)	CLASS
S-BE-1-001	38.9967	-83.0158	UNT to Scioto River	Intermittent	532	5	3	HHEI (36)	Modified small drainage warmwater stream
S-BE-1-002	38.9954	-83.0165	UNT to Scioto River	Intermittent	1,089	30	12	HHEI (75)	Modified small drainage warmwater stream
S-BE-2-001	38.9933	-83.0196	UNT to Scioto River	Ephemeral	697	4	2	HHEI (26)	Non-Relatively Permanent Waterway
S-BS-1-1	38.9922	-83.0182	UNT to Scioto River	Intermittent	309	5	3	HHEI (71)	Modified small drainage warmwater stream
S-BS-1-2	38.9917	-83.0136	UNT to Scioto River	Ephemeral	84	3	1	HHEI (24)	Non-Relatively Permanent Waterway

Total Ephemeral Stream Length 781
 Total Intermittent Stream Length 1,930
Total Stream Length in ESC 2,711

Notes: UNT = unnamed tributary, WWH = Warmwater Habitat

¹Lengths are approximate based on GPS data and are rounded to the nearest foot.

3.2.3 Delineated Ponds, Lakes, and Reservoirs

During the environmental surveys, the WSP ecologists identified one pond totaling 0.32 acres within the ESC. Pond P-BE-1-001 was identified as a man-made feature constructed from the impoundment of an historical stream (Stream S-BE-1-002) and therefore will likely be considered jurisdictional by the USACE.

Location of the identified pond within the ESC is shown in Figure 3 (Appendix A). Table 3-4 provides an overview of the delineated open water features. Representative photographs were taken of each open water feature during the field survey and are provided in Appendix D.

TABLE 3-4: PONDS, LAKES, AND RESEVOIRS DELINEATED WITHIN THE ESC

BASIN ID	LOCATION		DELINEATED AREA ¹ (acres)	JURISDICTIONAL?
	LAT	LON		
P-BE-1-001	38.9955	-83.0141	0.32	Yes

Total Open Water Acreage 0.32

¹Acreages reflect the area delineated within the ESC and are approximate based on GPS data and are rounded to the nearest 0.01-acre.



3.2.4 Vegetative Communities

The WSP ecologist conducted a general habitat survey in conjunction with the stream and wetland field surveys. Land uses within the ESC are dominated by hardwood woodlands and old field habitat, as described below in Table 3-5. A breakdown of vegetated land cover is provided, overlain on aerial photography in Figure 4 (Appendix A).

TABLE 3-5: VEGETATIVE COMMUNITIES WITHIN THE ESC

VEGETATIVE COMMUNITY	DESCRIPTION	ACREAGE WITHIN THE ESC	PERCENTAGE OF ESC
Cultivated Cropland	Agricultural areas routinely plowed, planted with annual row crops, and harvested.	3.0	5.0%
Developed, Open Space	Developed areas, including residential and commercial properties, were observed within the ESC. These landscaped areas are frequently mowed or maintained grasses and forbs.	2.3	3.8%
Developed, High Intensity	These areas consist of developed residential, industrial, and commercial land uses, including roads, buildings, and parking lots. These areas are devoid of significant vegetation.	0.9	1.5%
Old Field	This habitat represents the successional stage between Developed, Open Space and Scrub/shrub habitat. Often times, these areas are previously developed areas that have been left fallow or are maintained (mowed) once or twice a year.	25.1	41.6%
Pasture	Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.	2.3	3.8%
Successional Hardwood Woodland	Uplands dominated by trees. This can also include areas dominated primarily by disturbance tolerant non-native and/or invasive trees or non-native planted species	26.0	43.1%
Wetlands and Waterbodies	Streams and waterbodies delineated within the ESC boundaries.	0.6	1.0%
Total		60.3	100%

3.3 Threatened and Endangered Species Coordination

3.3.1 USFWS Coordination

In an email dated August 13, 2026, the USFWS provided comments on the Project with regards to federally listed threatened and endangered species within the Project vicinity. The USFWS indicated that there are no federal wildlife refuges, wilderness areas, or critical habitat within the vicinity of the Project. Comments from USFWS regarding protected species are provided in Table 3-6. The USFWS review comments have been included in Appendix E.

- USFWS noted that the ESC is within the range of the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and tricolored bat (*Perimyotis subflavus*). USFWS has recommended that removal of any trees greater or equal to three inches diameter at breast height (dbh) be conducted between October 1



and March 31. If any tree removal is unable to be conducted during that time frame, summer presence/absence surveys may be conducted between June 1 and August 15 by a USFWS-approved surveyor. Additional discussion of agency comments and habitat suitability for state and federally listed bat species may be found below in Section 3.3.2.

- USFWS also indicated that the ESC is greater than 1.5 miles from known records of northern long-eared bat. Therefore, a summer survey may be conducted to document the presence or absence of protected bat species within the ESC. Summer presence/absence surveys must be designed and conducted in coordination with the USFWS Ohio Field Office and ODNR, based on guidance in the 2026 *Ohio Division of Wildlife and U.S. Fish and Wildlife Service (OH-Field Office) Joint Guidance for Bat Surveys* (ODNR/USFWS 2026).
- USFWS noted that the ESC is within the range of the monarch butterfly (*Danaus plexippus plexippus*). USFWS has recommended revegetation of disturbed areas with native plant species and limitations on mowing in monarch habitat from March 15 to October 31. Potentially suitable habitat may be provided by 25.1 acres of habitat which may support milkweed, including open areas such as old fields and forest edges. It is anticipated that a regionally-appropriate native seed mix will be used as appropriate for post-construction restoration.
- USFWS noted that the ESC is in the range of the Bald Eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Protection Act, and recommended that an on-site examination be performed. WSP did not identify any bald eagle nests when on-site. The closest recorded bald eagle nest based on the guidance of ODNR's eagle nest interactive mapping website (<https://ohiodnr.gov/discover-and-learn/animals/birds/bald-eagle>), is approximately 1.5 miles west of the ESC. Therefore, based on USFWS guidance, a bald eagle permit is not required.

3.3.2 ODNR Coordination

A request for environmental review specific to the Project was submitted to ODNR on August 13, 2026. A response has not been received as of the date of this report. In-lieu of this, WSP has referenced the ODNR environmental review for the adjacent and related Baku Station Project, received on May 15, 2026. Once the review specific to the Project has been received, it will be provided in a separate submittal. A review of Natural Heritage Database identified records of three state-listed species within a one-mile radius of the Project. No high-quality natural communities were identified within the vicinity of the Project. Using this as guidance, WSP has provided observations of threatened and endangered species habitat within the vicinity of the ESC in Table 3-6. The ODNR Environmental Review has been included in Appendix E.

- Based on the protocols identified in the *Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines* (USFWS 2026) and the *Ohio Division of Wildlife and U.S. Fish and Wildlife Service (OH-Field Office) Joint Guidance for Bat Surveys* (ODNR/USFWS 2026) WSP performed a desktop review for potential hibernacula within the vicinity of the Project, as displayed on Figure 5 (Appendix A). Topographic maps for the Wakefield, Ohio quadrangles did not depict caves, cliffs/ledges, or karst topography within a 0.25-mile radius of the ESC. A review of aerial imagery also did not provide evidence of these habitat types. According to the ODNR *Mines of Ohio Viewer*, no documented mine openings are located within the ESC. The closest documented mine opening is located at approximate coordinate 38.9246°, -82.8222°, approximately 10.7 miles northeast of the ESC. According to the ODNR *Karst Interactive Map*, the ESC does not overlap any area of mapped karst geology. No potential hibernacula were identified within the ESC



during the environmental survey. No potential or known hibernaculum were identified in close enough proximity to the ESC which would require a 0.25-mile permanent tree clearing buffer. The Project is not expected to result in subsurface disturbance to any known or potential hibernacula within a five-mile radius of the ESC.

- Based on observations collected during the environmental surveys and a review of aerial imagery, suitable summer habitat for protected bat species was identified within the ESC, provided by approximately 26.0 acres of combined upland and wetland hardwood woodlands. However, any tree trimming/clearing will occur within the recommended clearing window (October 1st – March 31st) to avoid any unforeseen impacts to these species. Therefore, no impacts to state- and/or federally listed bat species are anticipated. If any tree clearing will occur outside the recommended clearing window, appropriate coordination with USFWS and ODNR will occur to seek permission for out of season tree clearing. Additional information pertaining to the state- and federally listed bat species is provided in Table 3-6.
- ODNR indicated the ESC is in the vicinity of known records of northern long-eared bat and little brown bat. As a result, ODNR comments indicate that summer surveys may not be conducted to constitute presence/absence within the ESC. An AEP contractor conducted mist net surveys for the Baku Station Project on July 3-6, 2026, resulting in the capture, tagging, and tracking of one tri-colored bat to a roost location west of the Project. As a result of the surveys, seasonal tree clearing restrictions have been recommended.
- The Project is also within the range of six state and federal listed freshwater mussel species. Based on ODNR comments and guidance provided in the April 2026 *Ohio Mussel Survey Protocol*, potentially suitable mussel habitat may be provided by perennial streams with a drainage area greater than five square miles at the location of impact. No perennial streams were identified within the ESC. Therefore, impacts to these species are not anticipated and surveys for freshwater mussels will not be required for completion of the Project.
- The ODNR Environmental Review indicated that the Project is within the range of ten state listed fish species. ODNR recommended that no in-water work occur in perennial stream from March 15 through June 30 to avoid impacts to indigenous aquatic species and their habitat. No perennial streams were identified within the ESC. Therefore, impacts to indigenous aquatic species are not anticipated as a result of the Project.
- The Project is within the range of the timber rattlesnake (*Crotalus horridus*), a state endangered species, and a federal species of concern. The ODNR Environmental Review stated that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.
- The Project is within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. The ODNR Environmental Review stated that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this toad species.
- The ODNR Environmental Review indicated that the project is in the range of the midland mud salamander (*Pseudotriton montanus diastictus*), a state threatened species. The ODNR Environmental Review stated that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this salamander species.
- The ESC is within the range of the eastern harvest mouse (*Reithrodontomys humulis*). ODNR recommended that early successional habitats be preserved where possible. Potentially suitable habitat may be provided by



old field habitat within the ESC. However, the Project is not likely to result in a loss of this habitat type; therefore impacts to this species are not anticipated by WSP.

TABLE 3-6: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESC	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Mammals						
Indiana bat (<i>Myotis sodalis</i>)	Endangered	Endangered	Winter hibernacula are provided by caves and mines. Summer roost habitat typically includes live or dead trees with exfoliating bark, crevices, or cavities that can be used for roosting. Open sub-canopy areas and flight corridors are important to allow maneuvering during foraging. Proximity to water sources provides a greater density of insect prey.	Yes (Summer)	USFWS and ODNR comments recommended seasonal tree clearing dates (October 1 through March 31) to avoid impacts protected bat species. ODNR indicated that summer surveys may not be conducted to determine presence/absence. ODNR recommended a desktop habitat assessment for potential hibernacula within five miles of the ESC.	The ESC is not located within a 0.25-mile radius of a known or potential hibernacula, and the Project is not expected to result in subsurface disturbance to a known or potential hibernacula. No impacts to protected bat species are anticipated to occur as a result of implementation of seasonal clearing restrictions.
Northern long-eared bat (<i>Myotis septentrionalis</i>)	Endangered	Endangered				
Tricolored bat (<i>Perimyotis subflavus</i>)	Endangered	Proposed Endangered				
Little brown bat (<i>Myotis lucifugus</i>)	Endangered	Not Listed				
Eastern harvest mouse (<i>Reithrodontomys humulis</i>)	Threatened	Not Listed	This species relies on early successional habitats dominated by herbaceous vegetation with less than 30% woody material .	Yes	ODNR recommends that early successional habitats be preserved where possible. If early successional habitats won't be impacted, this project is not likely to impact this species.	Development of the ESC for the Project is not likely to result in a loss of potentially suitable habitat. Therefore, impacts to this species are not anticipated.



TABLE 3-6: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESC	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Insects						
Monarch butterfly (<i>Danaus plexippus plexippus</i>)	Not Listed	Proposed Threatened	This species is found in areas populated by milkweeds such as old fields and fringe habitats.	Yes	USFWS has recommended revegetation of disturbed areas with native plant species and limitations on mowing in monarch habitat from March 15 to October 31.	It is anticipated that a regionally-appropriate native seed mix will be used as appropriate for post-construction restoration.
Mussels						
Clubshell (<i>Pleurobema clava</i>)	Endangered	Endangered	This species is found in small to medium streams with gravel/sand substrate and relatively little silt.	No	Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, the project is not likely to impact freshwater mussels.	Potentially suitable habitat was not identified within the ESC. Therefore, no impacts to these mussel species or their habitats are anticipated to occur.
Northern riffleshell (<i>Epioblasma torulosa rangiana</i>)	Endangered	Endangered	This species is known occur in fine to coarse gravel areas of swift current riffle and runs.	No		
Rayed bean (<i>Villosa fabalis</i>)	Endangered	Endangered	Typically inhabits vegetated riffles in small, shallow rivers with sand and gravel substrates.	No		
Ohio pigtoe (<i>Pleurobema cordatum</i>)	Endangered	Not Listed	Commonly found in strong currents on substrates of sand and gravel.	No		
Washboard (<i>Megalonaias nervosa</i>)	Endangered	Not Listed	Primarily found large rivers with a good current; occasionally medium-sized streams.	No		
Yellow sandshell (<i>Lampsilis teres</i>)	Endangered	Not Listed	This species generally lives in smaller, headwater creeks, but they are sometimes found in large rivers.	No		



TABLE 3-6: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESC	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Fish						
Bigeye shiner (<i>Notropis boops</i>)	Endangered	Not Listed	Pools of small, clear streams with sand and gravel substrates.	No	The DOW recommends no in-water work in perennial streams from March 15 through June 30. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.	Impacts to these fish species or their habitats are not anticipated to occur.
Goldeye (<i>Hiodon alosoides</i>)	Endangered	Not Listed	Prefers quiet, turbid waters of large rivers and their connecting lakes ponds and marshes	No		
Shoal chub (<i>Macrhybopsis hyostoma</i>)	Endangered	Not Listed	Shallow riffles of large, sand-bottomed rivers and tributaries over 160 feet (50m) wide with varying turbidity.	No		
Shortnose gar (<i>Lepisosteus platostomus</i>)	Endangered	Not Listed	Inhabits calm waters in large rivers and their backwaters, as well as oxbow lakes and large, quiet pools, typically around vegetation or downed logs	No		
Shovelnose sturgeon (<i>Scaphirhynchus platyrhynchus</i>)	Endangered	Not Listed	Inhabits fast river currents , depending on sandy or gravel beds as a safe place to lay eggs.	No		
Blue sucker (<i>Cycleptus elongatus</i>)	Threatened	Not Listed	Deep channels and chutes in large rivers.	No		
Channel darter (<i>Percina copelandi</i>)	Threatened	Not Listed	This species prefers pools and riffles of small- to medium-sized rivers, but can also be found in shallow, slow current areas of large rivers.	No		
Paddlefish (<i>Polyodon spathula</i>)	Threatened	Not Listed	This species occurs in deep open waters of large rivers and river lakes.	No		
River darter (<i>Percina shumardi</i>)	Threatened	Not Listed	This species inhabits deep riffles and chutes of medium to large rivers, in areas of moderate current and coarse gravel to rock substrates.	No		



TABLE 3-6: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESC	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Amphibians						
eastern spadefoot (<i>Scaphiopus holbrookii</i>)	Endangered	Not Listed	Habitat is typically provided by areas of sandy soils near river valleys. This may include flooded agricultural fields and other inundated depressions.	No	ODNR indicated that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.	Based on ODNR comments, impacts to this species are not anticipated.
midland mud salamander (<i>Pseudotriton montanus diastictus</i>)	Threatened	Not Listed	Habitat is provided by muddy springs, and slow-moving floodplain streams and associated riparian areas.	No	ODNR indicated that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this salamander species.	Based on ODNR comments, impacts to this species are not anticipated.
Reptiles						
timber rattlesnake (<i>Crotalus horridus</i>)	Endangered	Species of Concern	Habitat is provided by woodland areas, where sunlit gaps are used for basking, and rock crevices provide den sites for overwintering.	Yes	ODNR indicated that due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this snake species.	Based on ODNR comments, impacts to this species are not anticipated.



4 Summary

WSP conducted environmental surveys of the proposed approximately 60.3-acre ESC on August 19 and 24, 2026. The environmental surveys resulted in the delineation of five streams and one pond. No wetlands were identified within the ESC.

The five delineated streams totaled 2,711 lf within the ESC, including two ephemeral streams measuring 781 lf and three intermittent streams measuring 1,930 lf. The three intermittent streams are likely to be considered jurisdictional by the USACE.

ODNR and USFWS have indicated that the ESC is within the range of multiple state and federally protected bat species. Both agencies recommended a seasonal clearing window from October 1 through March 31. ODNR indicated that due to the proximity of capture records of northern long-eared bat and little brown bat, summer presence/absence surveys may not be conducted to determine presence or absence of the species. WSP performed a desktop review for potential hibernacula within the vicinity of the ESC per comments from ODNR. No potential or known hibernacula were identified in close enough proximity to the ESC which would require a 0.25-mile permanent tree clearing buffer. Potentially suitable summer roost habitat may be provided by approximately 26.0 acres of woodland within the ESC. The Project is not expected to result in subsurface disturbance to any known or potential hibernacula within a five-mile radius of the ESC. However, as a result of implementation of seasonal clearing restrictions, impacts to state and federally protected bat species are not anticipated as a result of the Project.

ODNR indicated that the ESC is within the range of the eastern harvest mouse, and that suitable habitat should be preserved to avoid impacts to this species. The Project is not expected to result in significant loss of old field habitat, therefore impacts to this species are not anticipated.

USFWS indicated that the ESC is within the range of the monarch butterfly. USFWS has recommended revegetation of disturbed areas with native plant species and limitations on mowing in monarch habitat from March 15 to October 31.

The ODNR Environmental Review indicated that the ESC is within the range of federally- and state-protected freshwater mussel species and state-protected fish species. ODNR has recommended that no in-water work occur in perennial streams between March 15 and June 30. No potentially suitable habitat was identified within the ESC. Therefore, impacts to mussel and fish species are not anticipated.

The ODNR Environmental Review indicated that the ESC is within the range of the eastern spadefoot toad, midland mud salamander, and timber rattlesnake. However, ODNR also indicated that due to the type and location of the Project, adverse effects to listed species is not anticipated.

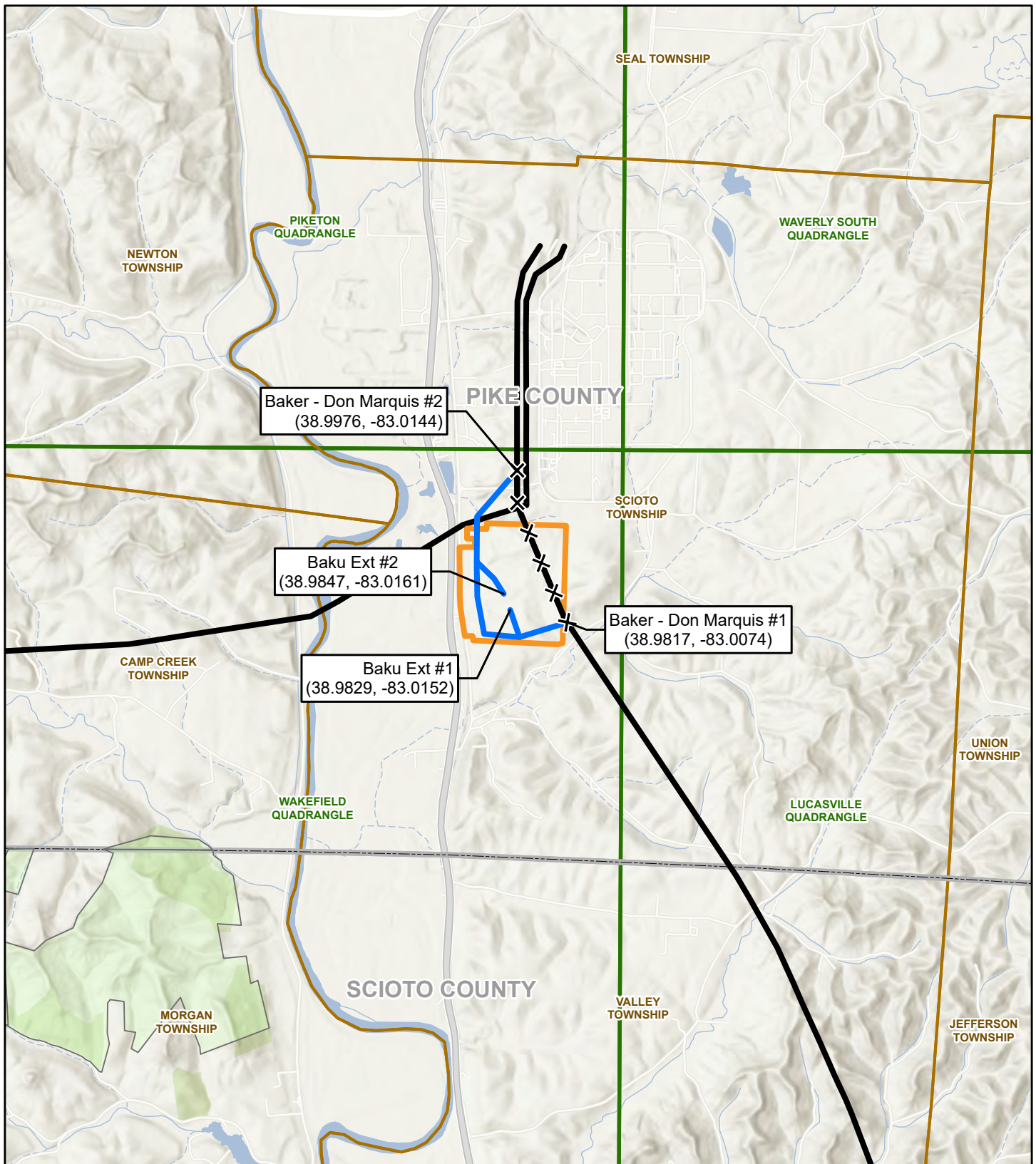


5 References

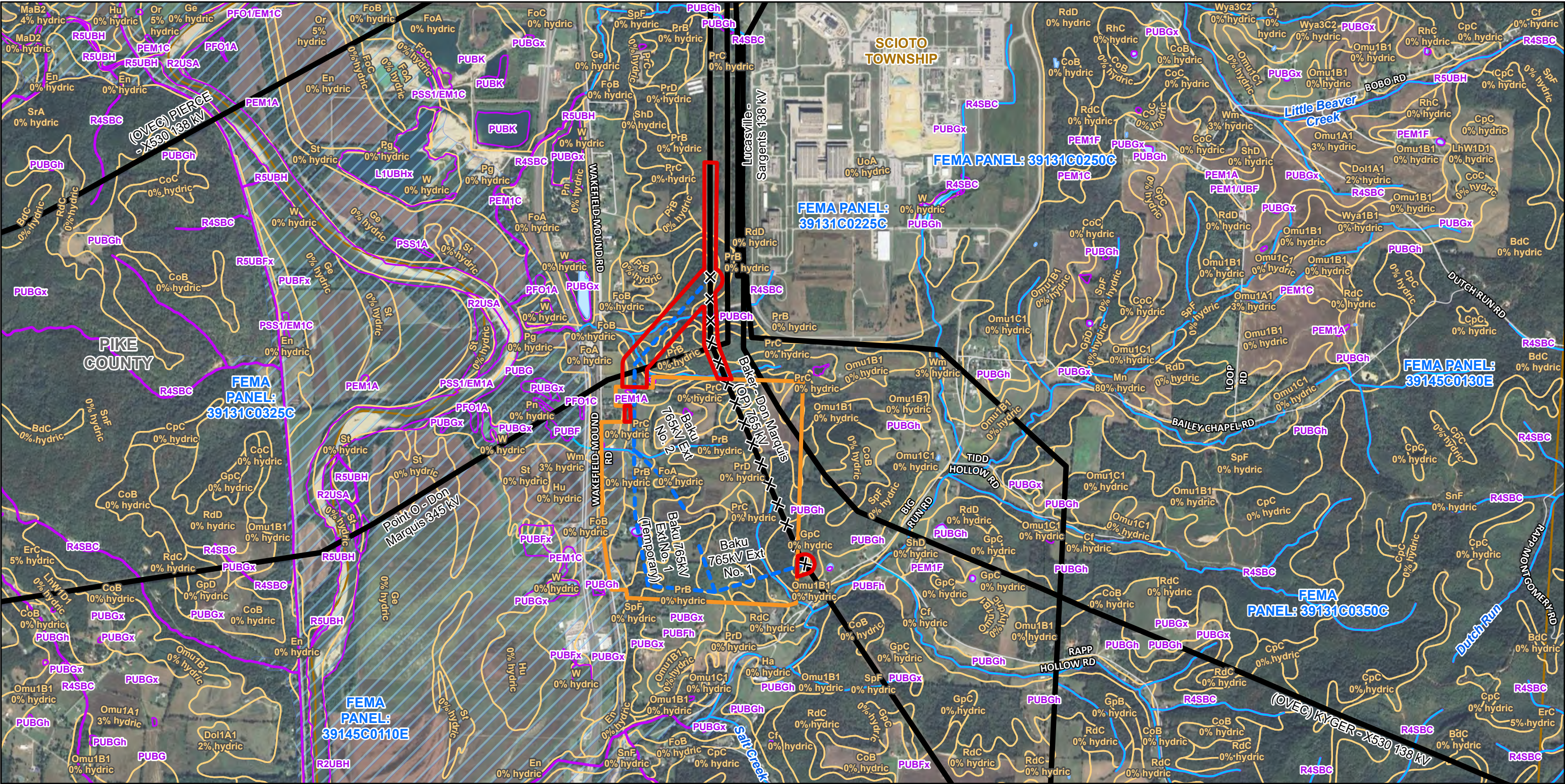
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APPENDIX

A FIGURES



— Proposed Route — Existing Transmission Line ✕✕ Line to be Removed □ Baku Station □ Study Area (separate report)	— Existing AEP Transmission Line □ Township Boundary □ County Boundary □ USGS 24k Topo Quad Boundary	Sources: Topo (USGS) Quad Boundaries (USGS) Coordinate System: State Plane Ohio South NAD 1983 August 31, 2026	Ohio Kentucky West Virginia	BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT Figure 1. Project Location Map 0 0.5 1 Miles N
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- Environmental Survey Corridor

Proposed Route

Existing Transmission Line to be Removed

Existing AEP Transmission Line

Baku Station Study Area (separate report)
- NHD Stream

NHD Waterbody

NWI Wetlands

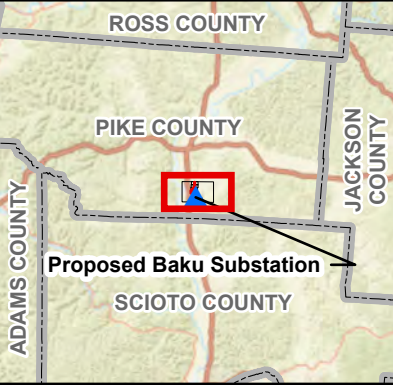
FEMA 100-Yr Floodplain

Soil Map Unit
- Township Boundary

Sources:
Floodplains (FEMA 2020)
Hydrography (USGS 2022)
Imagery (Google Earth)
Soil Units (USDA 2019)
Wetlands (USFWS 2022)

Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026



BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 2. Environmental Basemap

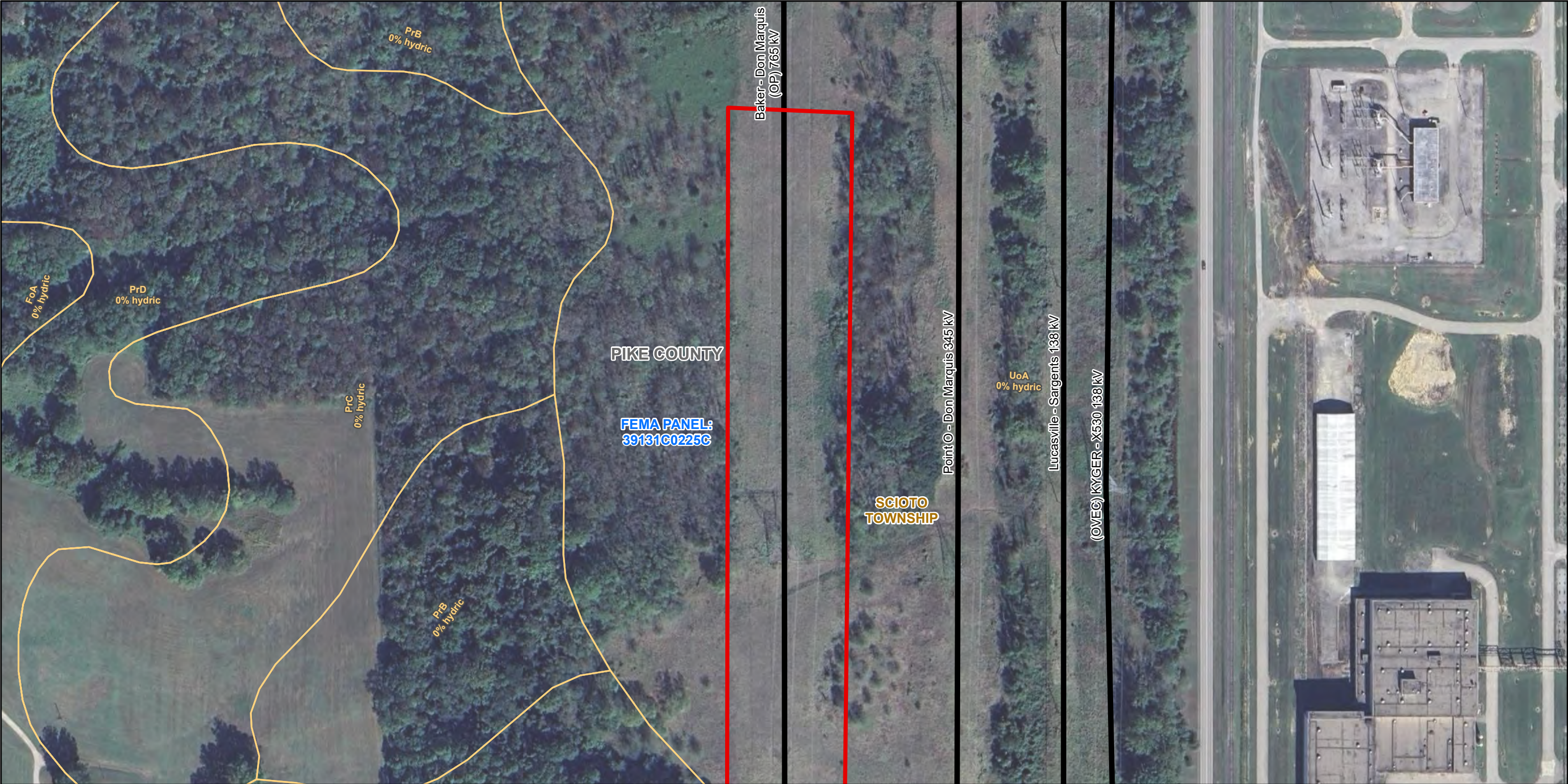
AEP OHIO
TRANSMISSION
COMPANY

wsp

N

0 2,000 4,000 Feet

Note: FEMA designated Floodway in the current map extent.



 Environmental Survey Corridor

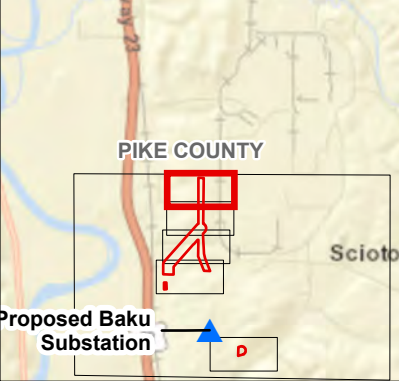
 Soil Map Unit

 Existing AEP Transmission Line

Sources:
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Hydrography (USGS 2022)
Imagery (Google Earth)
Soil Units (USDA 2019)
Wetlands (USFWS 2022)

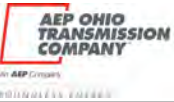
Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026



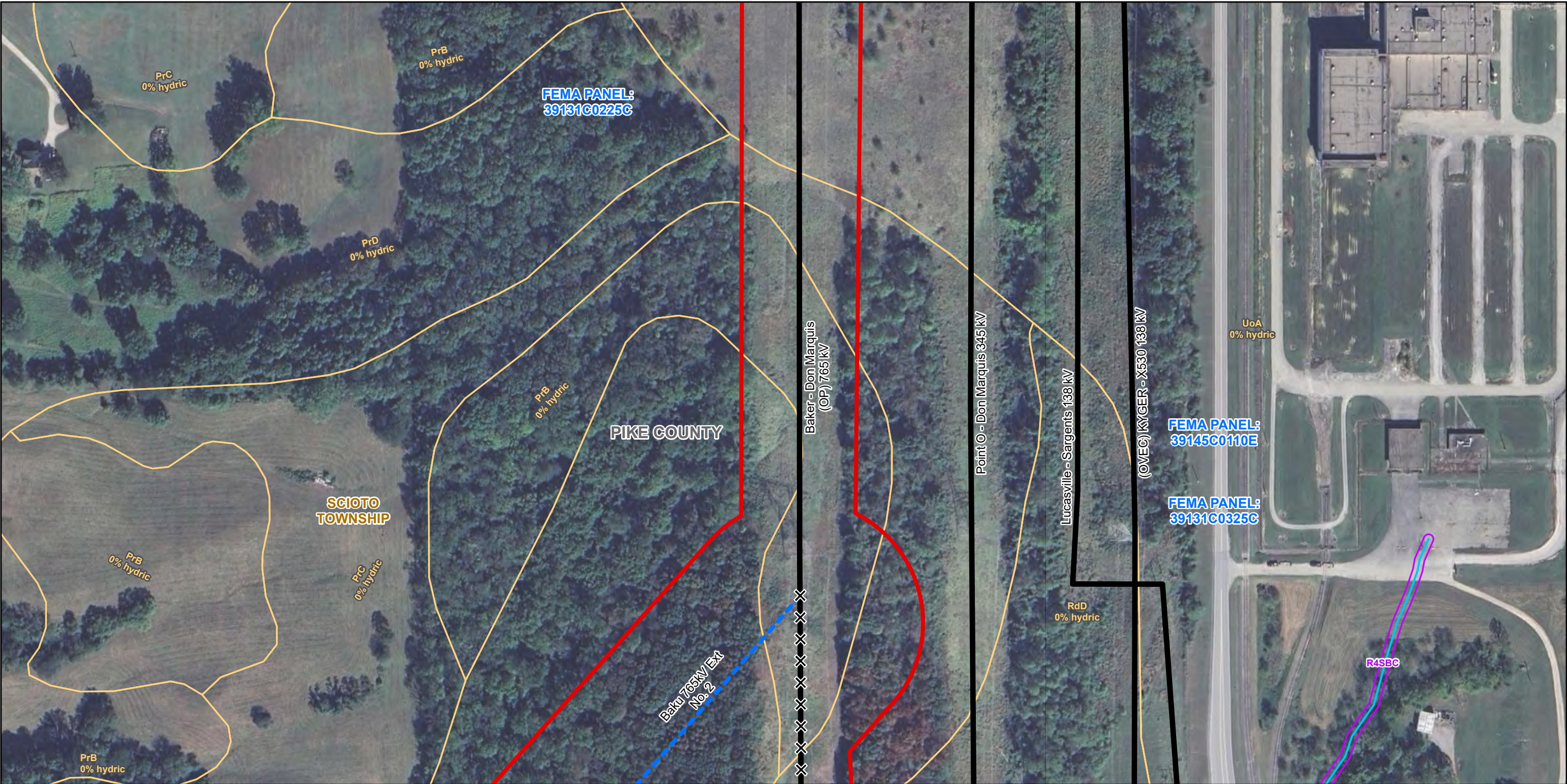
BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 2. Environmental Basemap



0 200 400 Feet

Note: No FEMA designated Floodplain or Floodway in the current map extent.



- Environmental Survey Corridor

Proposed Route

Existing Transmission Line to be Removed

Existing AEP Transmission Line
- NHD Stream

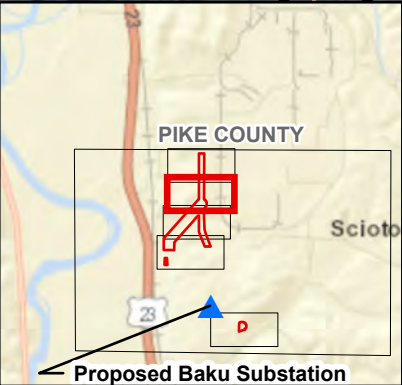
NWI Wetlands

Soil Map Unit

Sources:
Floodplains (FEMA 2020)
Hydrography (USGS 2022)
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Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026



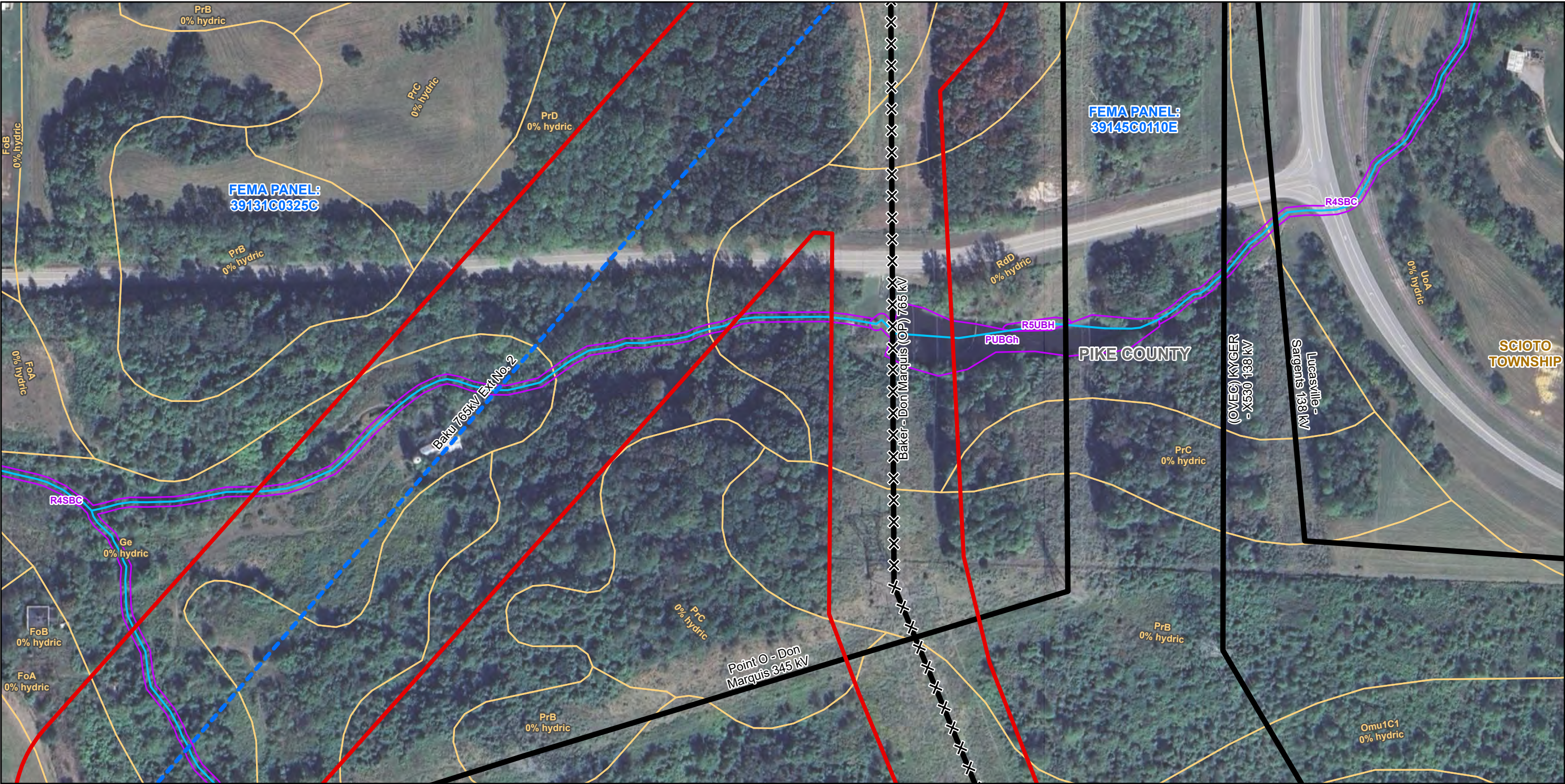
BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 2. Environmental Basemap



0 200 400 Feet

Note: No FEMA designated Floodplain or Floodway in the current map extent.



- Environmental Survey Corridor

Proposed Route

Existing Transmission Line to be Removed

Existing AEP Transmission Line
- NHD Stream

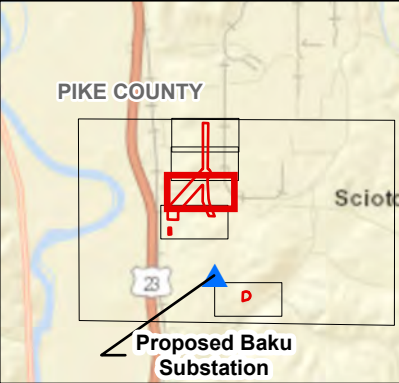
NWI Wetlands

Soil Map Unit

Sources:
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Hydrography (USGS 2022)
Imagery (Google Earth)
Soil Units (USDA 2019)
Wetlands (USFWS 2022)

Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026



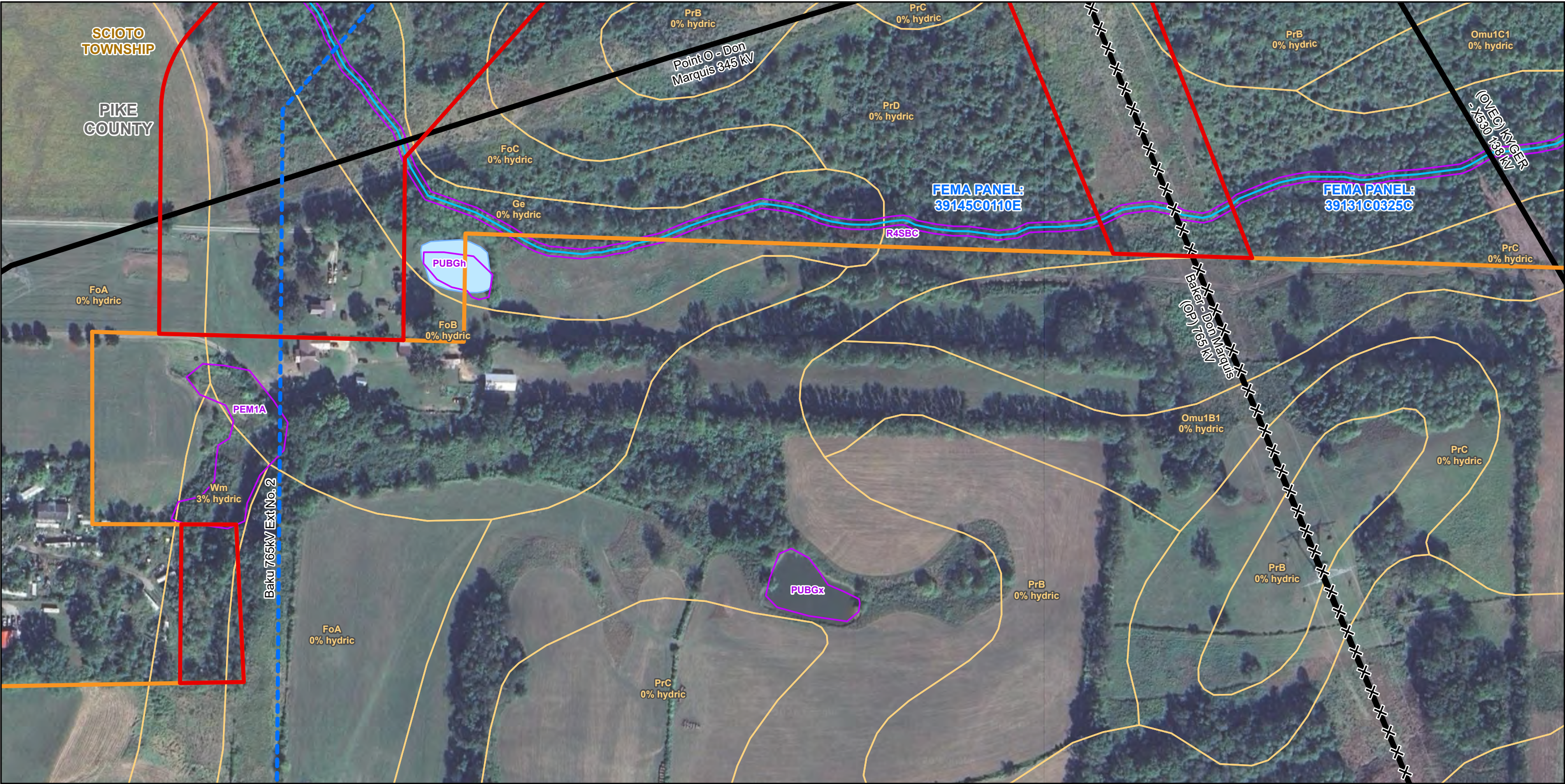
BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 2. Environmental Basemap



0 200 400 Feet

Note: No FEMA designated Floodplain or Floodway in the current map extent.



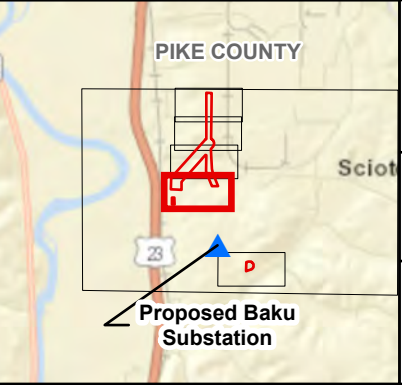
- Environmental Survey Corridor
- Proposed Route
- Existing Transmission Line to be Removed
- Existing AEP Transmission Line
- Baku Station Study Area (separate report)

- NHD Stream
- NHD Waterbody
- NWI Wetlands
- Soil Map Unit

Sources:
Floodplains (FEMA 2020)
Hydrography (USGS 2022)
Imagery (Google Earth)
Soil Units (USDA 2019)
Wetlands (USFWS 2022)

Coordinate System:
State Plane Ohio South
NAD 1983

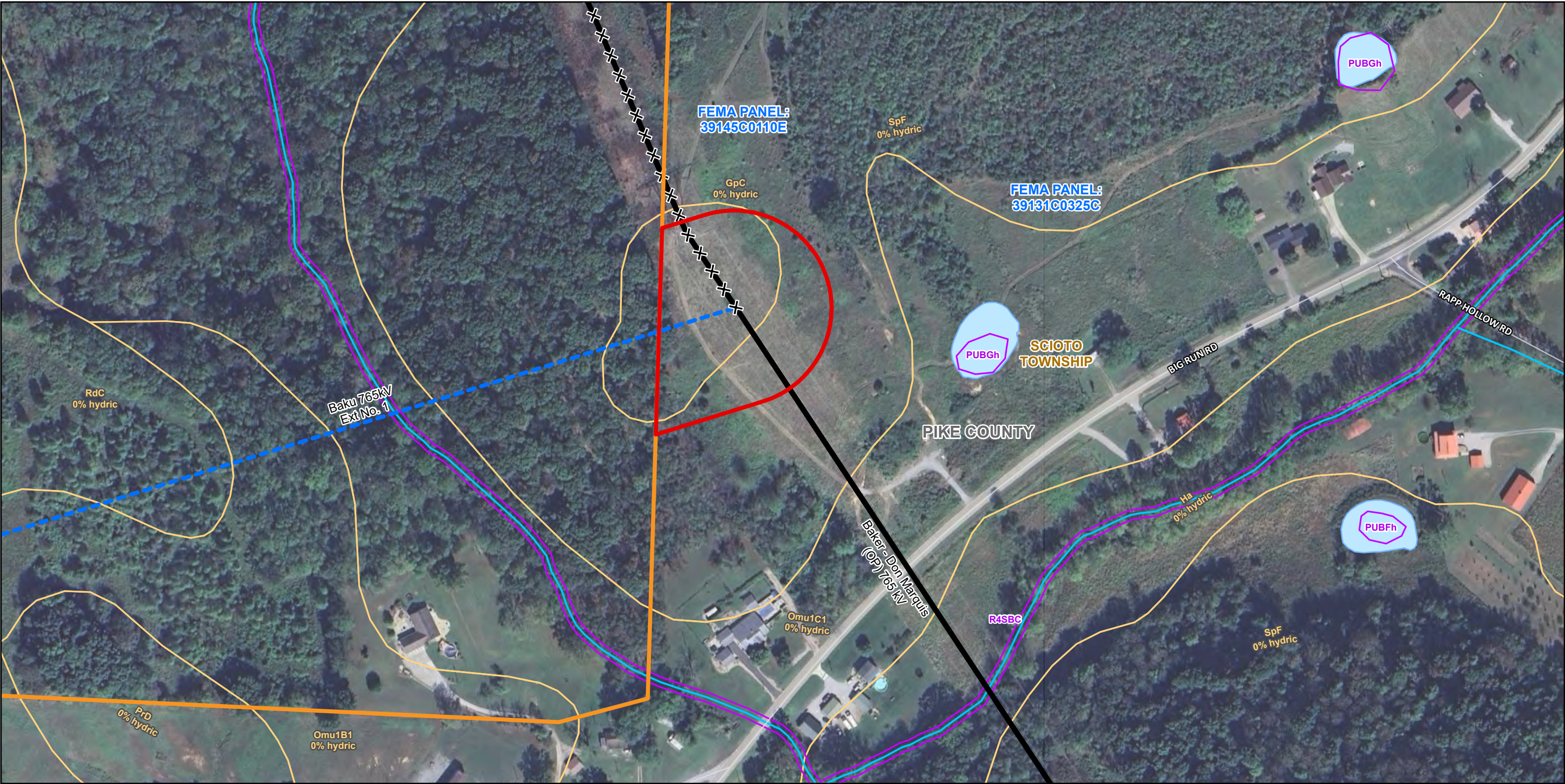
September 2, 2026



BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 2. Environmental Basemap

Note: FEMA designated Floodway in the current map extent.

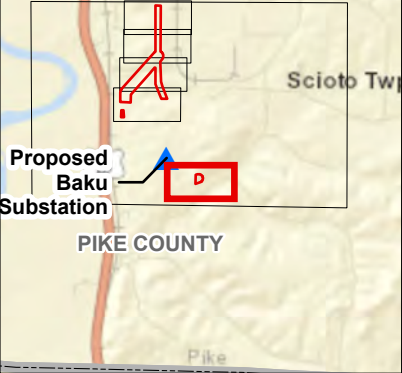


- Environmental Survey Corridor
-
- Proposed Route

Sources:
Floodplains (FEMA 2020)
Hydrography (USGS 2022)
Imagery (Google Earth)
Soil Units (USDA 2019)
Wetlands (USFWS 2022)

Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026



BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 2. Environmental Basemap

AEP OHIO
TRANSMISSION
COMPANY

an AEP Company

WSP

WILSON SOUTHERN PARTNERS

N

0200400

Feet

Note: No FEMA designated Floodplain or Floodway in the current map extent.



- | | | | |
|---|-----------------------------|------------------------|-------------------|
| Environmental Survey Corridor | Non-Jurisdictional Drainage | Delineated Stream Area | Township Boundary |
| Proposed Route | Culvert | Delineated Pond | |
| Existing Transmission Line to be Removed | Upland Verification Point | | |
| Existing AEP Transmission Line | Delineated Stream | | |
| Baku Station Study Area (separate report) | Approximate Stream | | |

Sources:
Imagery (Google Earth)

Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026



BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 3. Delineated Features



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Feet



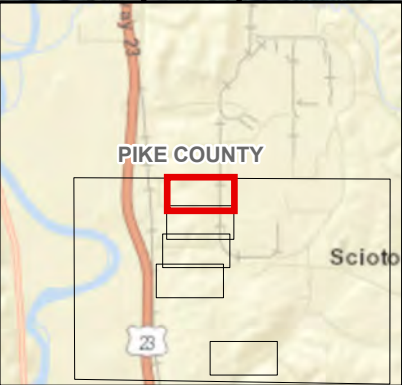
-  Environmental Survey Corridor
-  Proposed Route
-  Existing Transmission Line to be Removed
-  Existing AEP Transmission Line

 Upland Verification Point

Sources:
Imagery (Google Earth)

Coordinate System:
State Plane Ohio South
NAD 1983

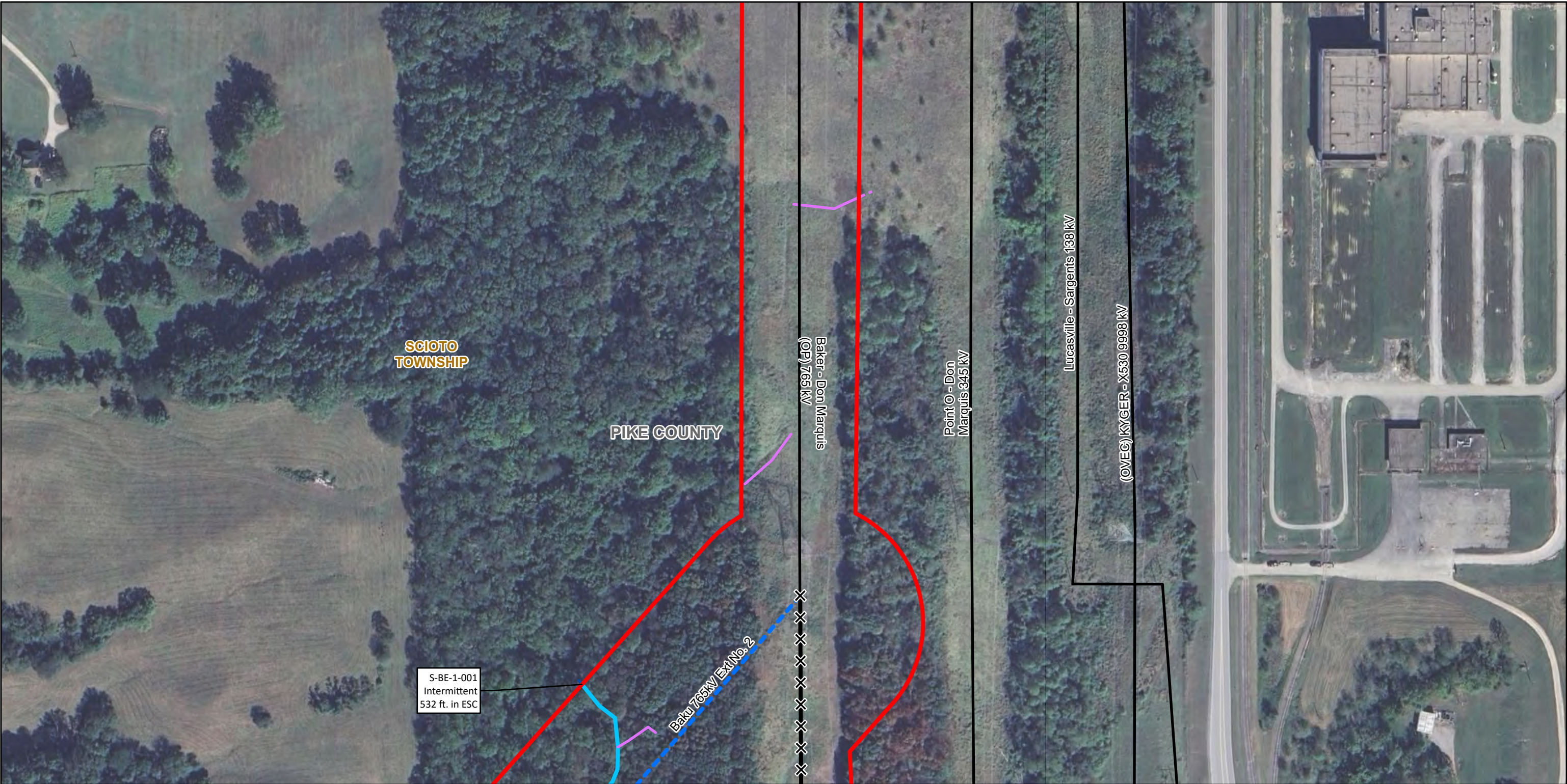
September 2, 2026



BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT
Figure 3. Delineated Features



0 200 400 Feet

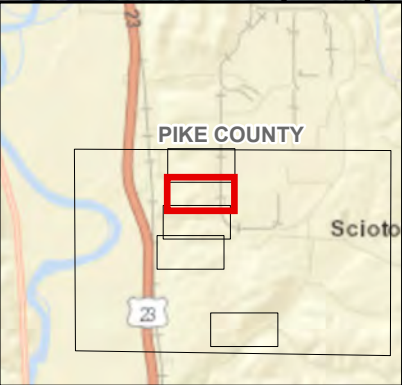


- | | |
|--|-----------------------------|
| Environmental Survey Corridor | Non-Jurisdictional Drainage |
| Proposed Route | Delineated Stream |
| Existing Transmission Line to be Removed | Approximate Stream |
| Existing AEP Transmission Line | |

Sources:
Imagery (Google Earth)

Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026

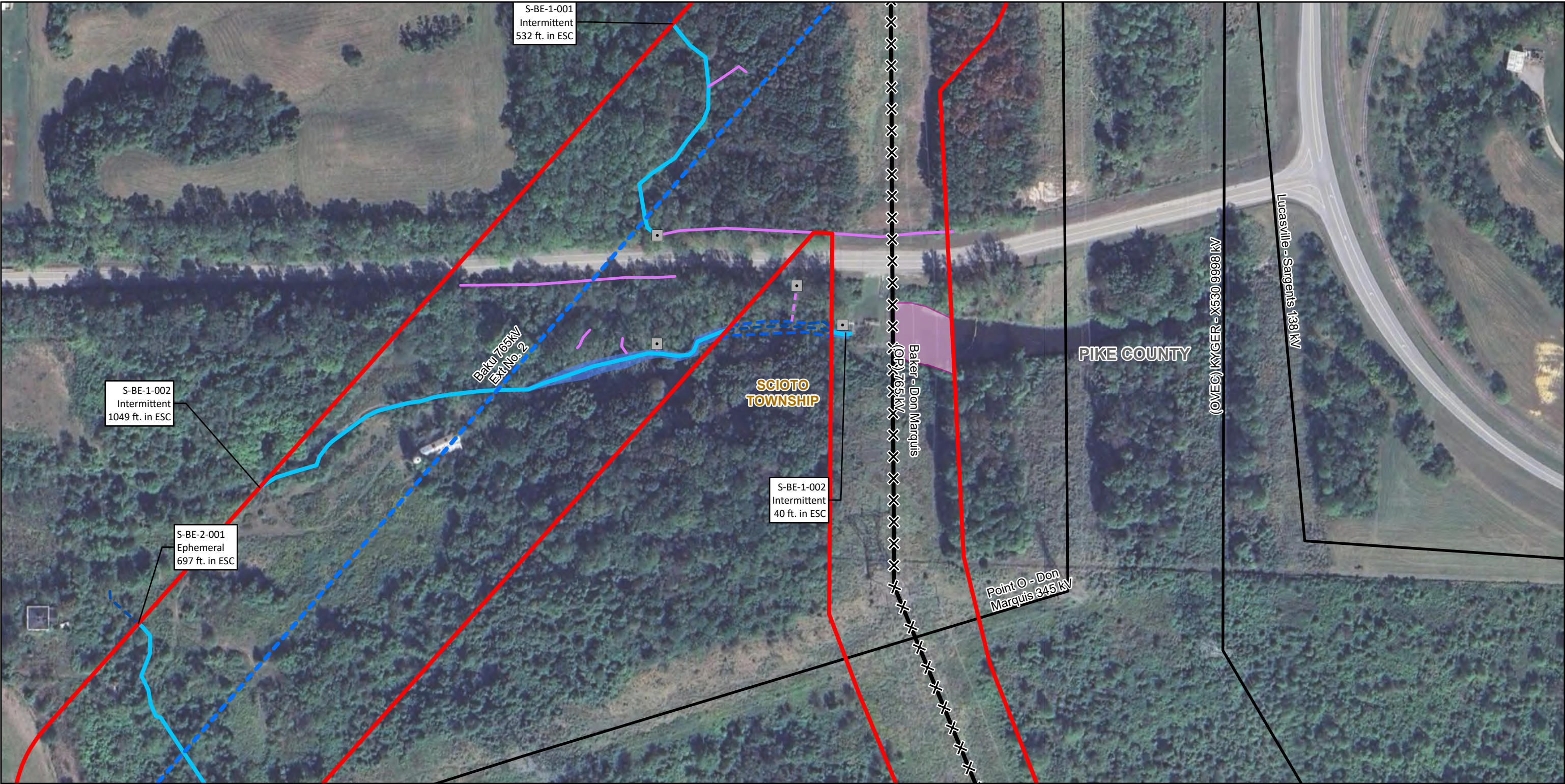


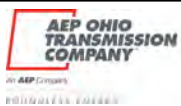
BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 3. Delineated Features



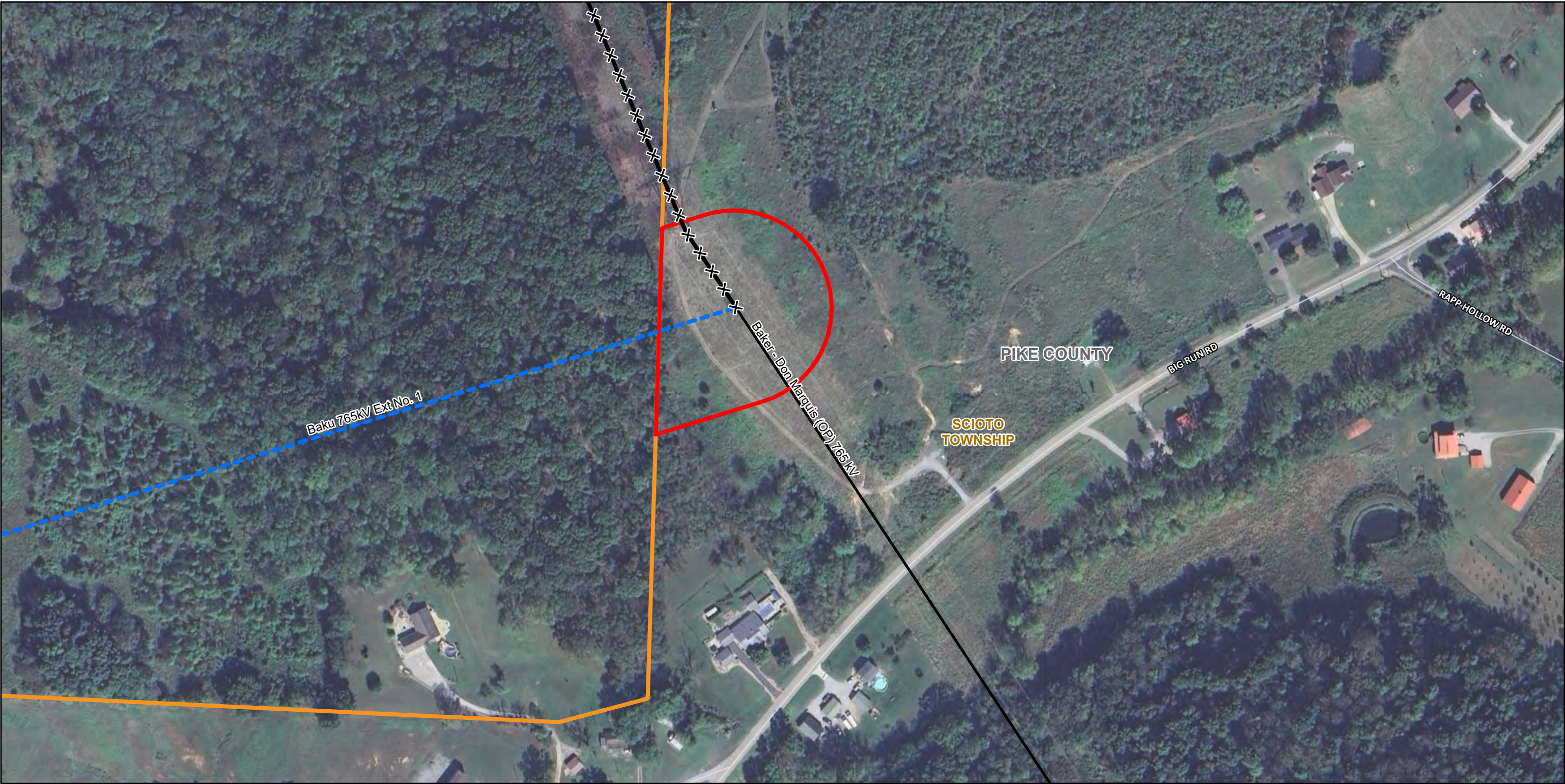
0 200 400 Feet



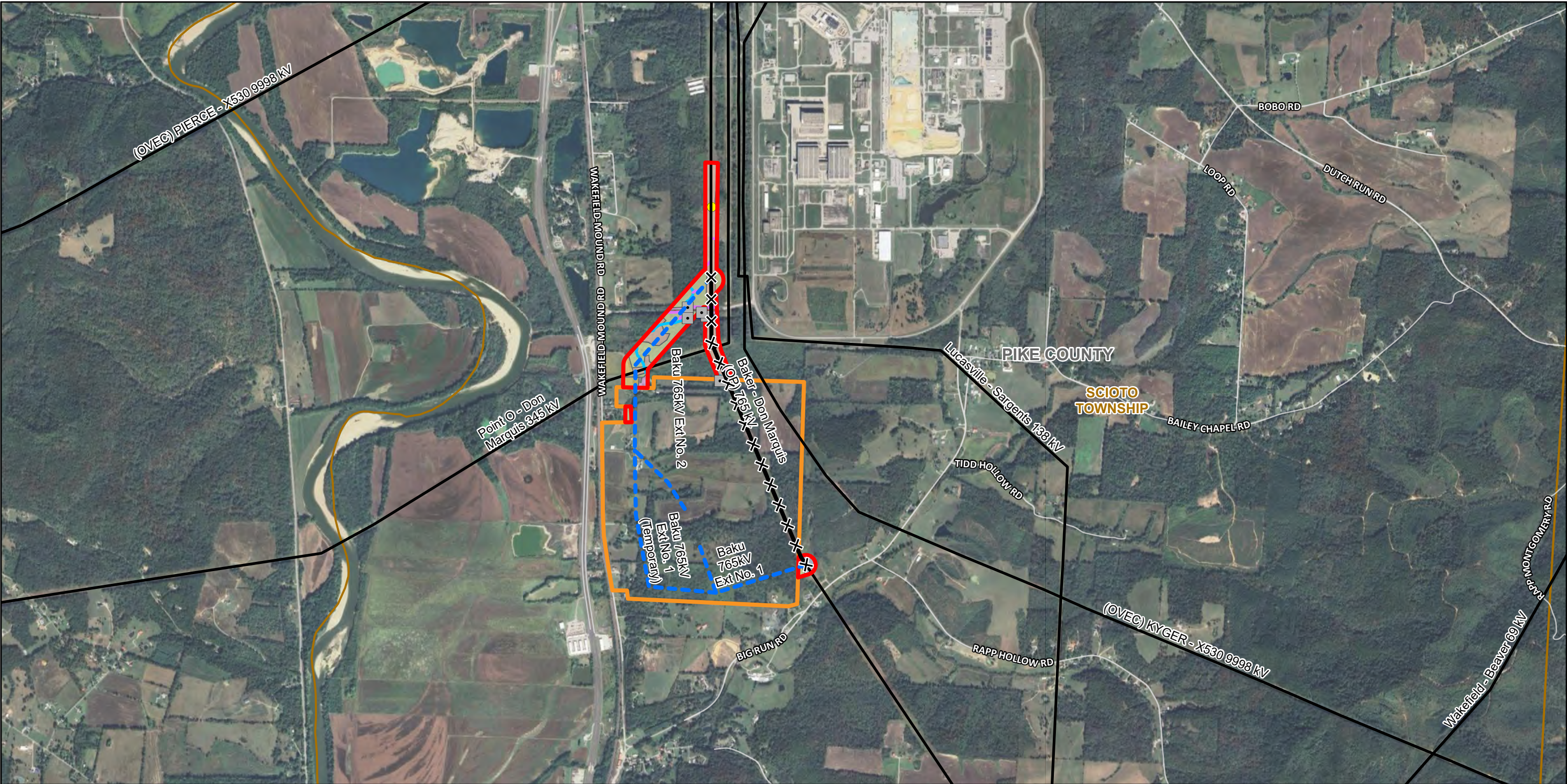
Environmental Survey Corridor Proposed Route Existing Transmission Line to be Removed Existing AEP Transmission Line Non-Jurisdictional Drainage Culvert Delineated Stream Approximate Stream Delineated Stream Area Delineated Pond	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 September 2, 2026		BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT Figure 3. Delineated Features  N 0200400 Feet
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Environmental Survey Corridor Proposed Route Existing Transmission Line to be Removed Existing AEP Transmission Line Baku Station Study Area (separate report)	Non-Jurisdictional Drainage Culvert Delineated Stream Approximate Stream	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 September 2, 2026	PIKE COUNTY Scioto 23 BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT Figure 3. Delineated Features AEP OHIO TRANSMISSION COMPANY An AEP Company WSP WSP GROUP N 0 200 400 Feet
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Environmental Survey Corridor Proposed Route Existing Transmission Line to be Removed Existing AEP Transmission Line Baku Station Study Area (separate report)	Sources: Imagery (Google Earth)	Scioto Tw PIKE COUNTY Pike	BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT Figure 3. Delineated Features	
	Coordinate System: State Plane Ohio South NAD 1983			
	September 2, 2026		N 0 200 400 Feet	



Name — Proposed Route ✕✕ Existing Transmission Line to be Removed Environmental Survey Corridor Existing AEP Transmission Line Baku Station Study Area (separate report)		Non-Jurisdictional Drainage Culvert Upland Verification Point Delineated Stream	Developed, High Intensity Developed, Open Space Old Field Pasture Successional Hardwood Woodland Wetlands & Waterbodies Cultivated Cropland Township Boundary	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 September 2, 2026	ROSS COUNTY PIKE COUNTY JACKSON COUNTY ADAMS COUNTY SCIOTO COUNTY	BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT Figure 4. Vegetation Coverage  N 0 2,000 4,000 Feet
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Name

Proposed Route

Existing Transmission Line to be Removed

Environmental Survey Corridor

Existing AEP Transmission Line

Upland Verification Point

Old Field

Successional Hardwood Woodland

Page 2 of 6

Sources:
Imagery (Google Earth)

Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026

PIKE COUNTY

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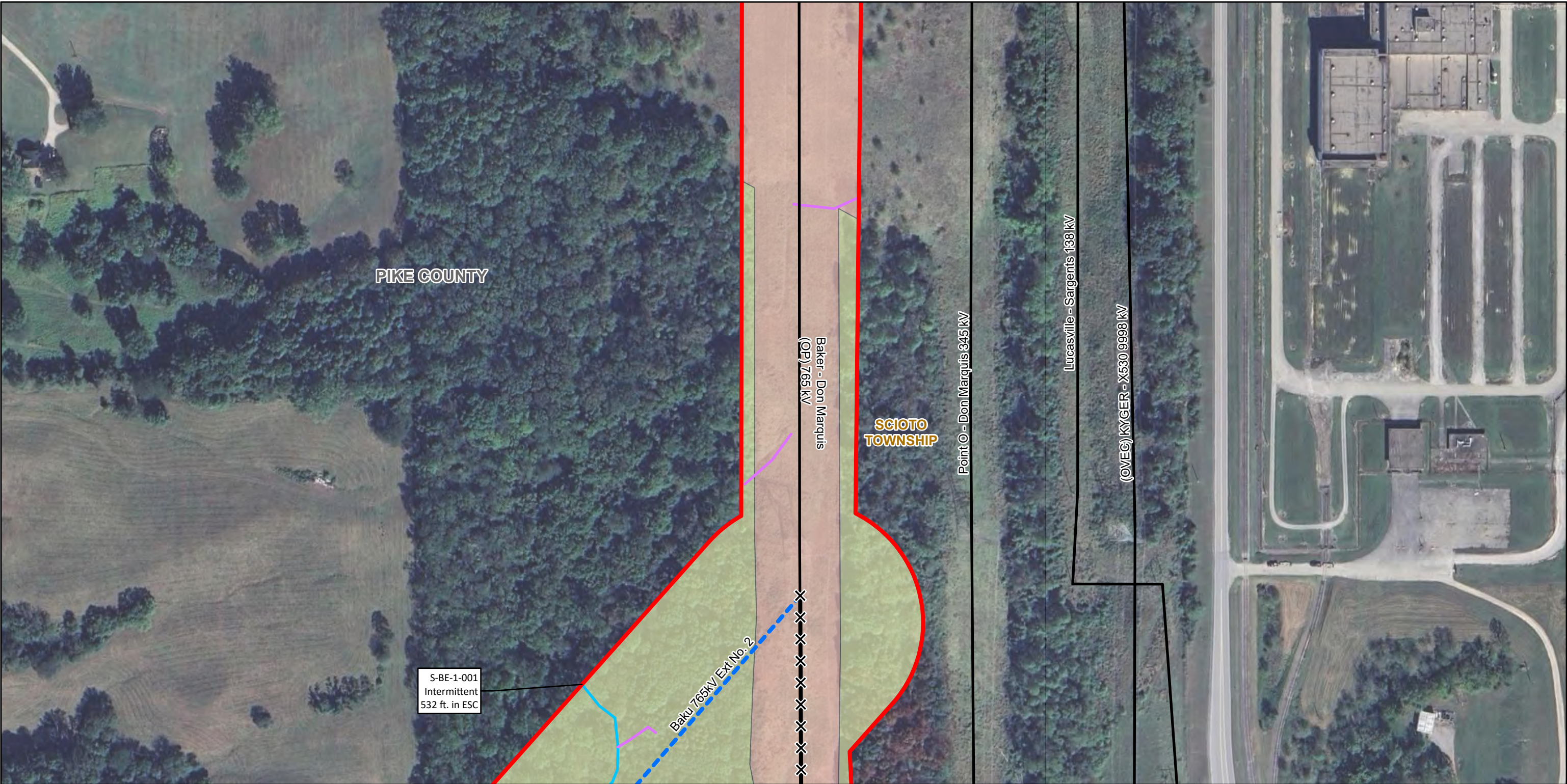
BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT

Figure 4. Vegetation Coverage

AEP OHIO
TRANSMISSION
COMPANY

N

0200400
Feet



- Name

Proposed Route

X-X

Existing Transmission Line to be Removed

Environmental Survey Corridor

Existing AEP Transmission Line

Non-Jurisdictional Drainage

Delineated Stream

Old Field

Successional Hardwood Woodland

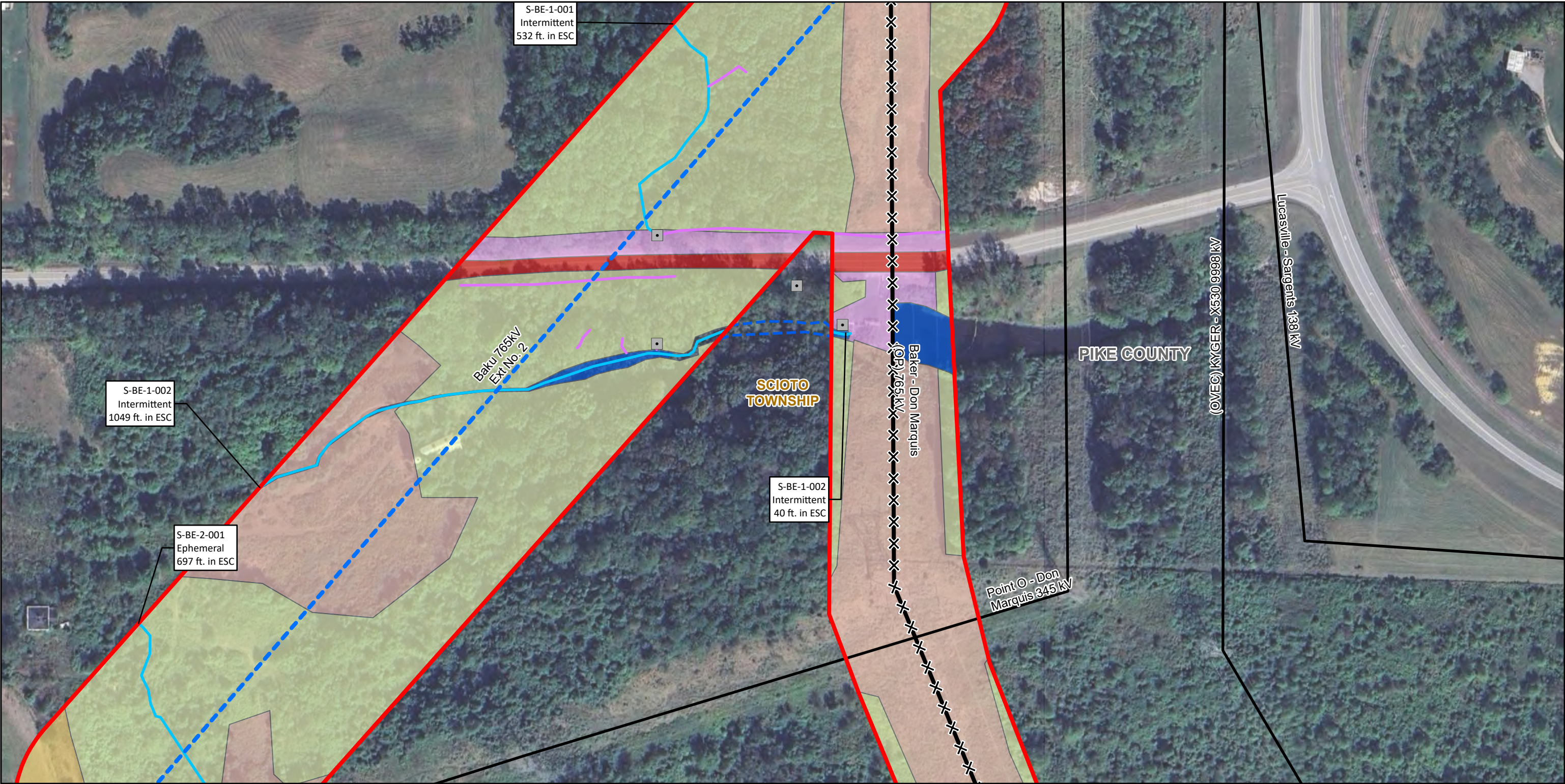
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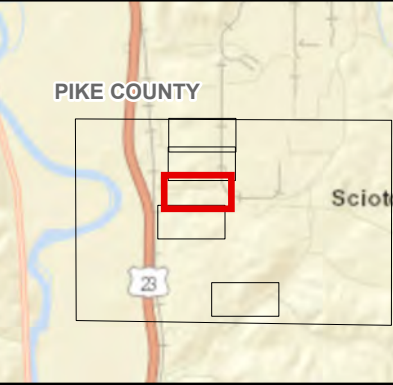
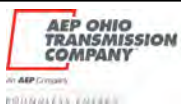
Coordinate System:
State Plane Ohio South
NAD 1983

September 2, 2026

Page 3 of 6

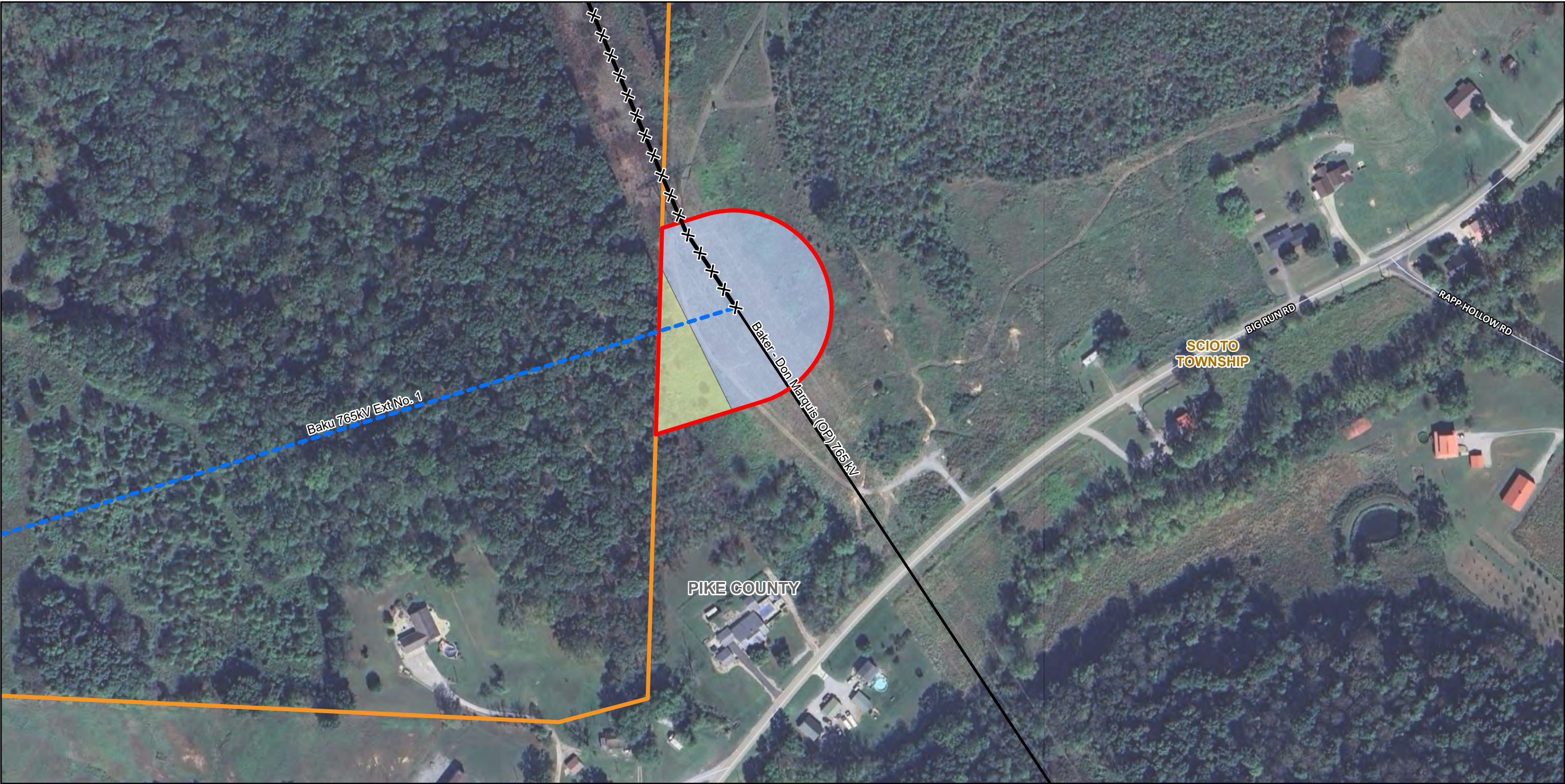
BAKU 765 KV EXT #1 AND #2
TRANSMISSION LINE PROJECT
Figure 4. Vegetation Coverage

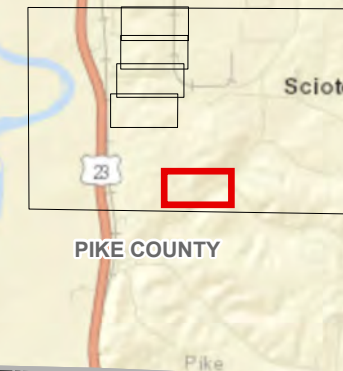


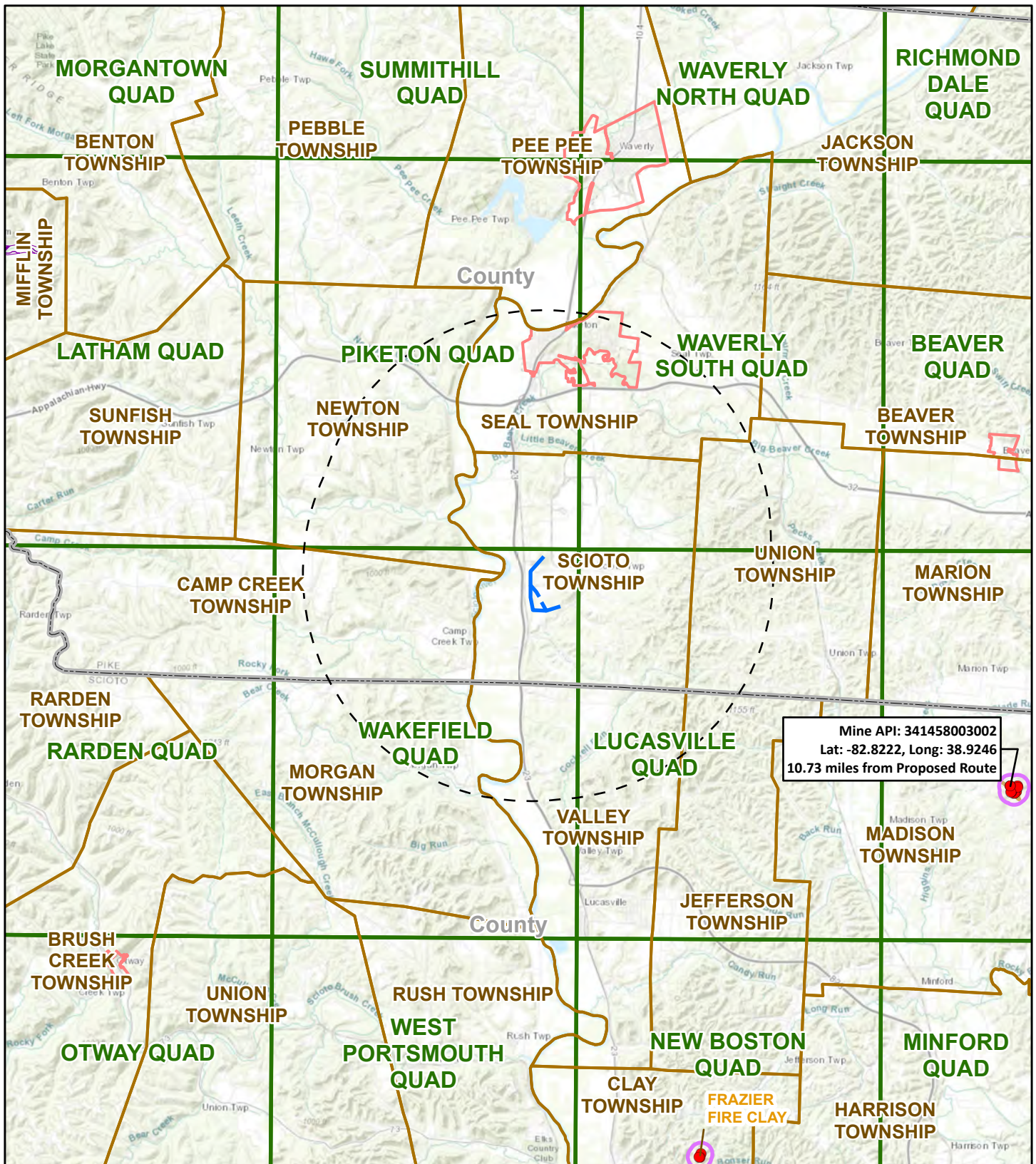
Name - - - Proposed Route X-X Existing Transmission Line to be Removed [Red Box] Environmental Survey Corridor — Existing AEP Transmission Line		Legend — Non-Jurisdictional Drainage ■ Culvert — Delineated Stream [Red Box] Developed, High Intensity [Pink Box] Developed, Open Space [Light Orange Box] Old Field [Light Green Box] Successional Hardwood Woodland [Blue Box] Wetlands & Waterbodies [Yellow Box] Cultivated Cropland	Sources: Imagery (Google Earth)		BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT Figure 4. Vegetation Coverage	
			Coordinate System: State Plane Ohio South NAD 1983		 	
			September 2, 2026		 	



Name — Proposed Route X—X Existing Transmission Line to be Removed Environmental Survey Corridor Existing AEP Transmission Line Baku Station Study Area (separate report)		Non-Jurisdictional Drainage Culvert Delineated Stream		Developed, High Intensity Developed, Open Space Old Field Successional Hardwood Woodland Cultivated Cropland	
Sources: Imagery (Google Earth)		Coordinate System: State Plane Ohio South NAD 1983		September 2, 2026	
BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT		Figure 4. Vegetation Coverage			



Name — Proposed Route — Existing Transmission Line to be Removed — Environmental Survey Corridor — Existing AEP Transmission Line — Baku Station Study Area (separate report)		Pasture Successional Hardwood Woodland		Sources: Imagery (Google Earth)		BAKU 765 KV EXT #1 AND #2 TRANSMISSION LINE PROJECT Figure 4. Vegetation Coverage	
				Coordinate System: State Plane Ohio South NAD 1983		 	
						N 0 200 400 Feet	
Page 6 of 6				September 2, 2026			



Mine API: 341458003002
 Lat: -82.8222, Long: 38.9246
 10.73 miles from Proposed Route

- Proposed Route - Documented Mine Opening - Mine Opening 0.25-Mile Buffer 5 mile Buffer - Abandoned Underground Mine - Karst Geological Area - USGS 24k Topo Quad Boundary - Municipal Boundary - Township Boundary - County Boundary No karst points are within the map extent.	Sources: Census Boundaries (ESRI 2021) Topo Quads (USGS 2019) Mine and Karst Data (ODNR 2022) Coordinate System: State Plane Ohio South NAD 1983 August 31, 2026		BAKU 765 KV EXT #2 TRANSMISSION LINE PROJECT Figure 5. Hibernaculum Desktop Review AEP OHIO TRANSMISSION COMPANY wsp 0 1.5 3 Miles N
--	--	--	---

APPENDIX

B WETLAND DETERMINATION DATA FORMS AND PHOTOGRAPHS

*Photographs were collected at the locations of the wetland data points shown in Figure 3, Appendix A.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 9/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
---	---

Project/Site:	Baku Extension	City/County:	Scioto County	Sampling Date:	8/19/2026
Applicant/Owner:	AEP	State:	OH	Sampling Point:	UVP-BE-1-001
Investigator(s):	P. Renner	Section, Township, Range:			
Landform (hillside, terrace, etc.):	hillside	Local relief (concave, convex, none):	convex	Slope (%):	10
Subregion (LRR or MLRA):	LRR N	Lat:	39.00177	Long:	-83.01434
				Datum:	NAD83
Soil Map Unit Name:	Urban land - Omulga complex, 0 to 6 percent slopes		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?		Yes	No	Are "Normal Circumstances" present? Yes No	
Are Vegetation, Soil, or Hydrology naturally problematic?		(If needed, explain any answers in Remarks.)			

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

Hydrophytic Vegetation Present?	Yes	No	X	Is the Sampled Area within a Wetland?	Yes	No	X
Hydric Soil Present?	Yes	No	X				
Wetland Hydrology Present?	Yes	No	X				
Remarks: Non-wetland data point in existing ROW.							

HYDROLOGY

Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)							
☐ Surface Water (A1)	☐ True Aquatic Plants (B14)			☐ Surface Soil Cracks (B6)			
☐ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1)			☐ Sparsely Vegetated Concave Surface (B8)			
☐ Saturation (A3)	☐ Oxidized Rhizospheres on Living Roots (C3)			☐ Drainage Patterns (B10)			
☐ Water Marks (B1)	☐ Presence of Reduced Iron (C4)			☐ Moss Trim Lines (B16)			
☐ Sediment Deposits (B2)	☐ Recent Iron Reduction in Tilled Soils (C6)			☐ Dry-Season Water Table (C2)			
☐ Drift Deposits (B3)	☐ Thin Muck Surface (C7)			☐ Crayfish Burrows (C8)			
☐ Algal Mat or Crust (B4)	☐ Other (Explain in Remarks)			☐ Saturation Visible on Aerial Imagery (C9)			
☐ Iron Deposits (B5)				☐ Stunted or Stressed Plants (D1)			
☐ Inundation Visible on Aerial Imagery (B7)				☐ Geomorphic Position (D2)			
☐ Water-Stained Leaves (B9)				☐ Shallow Aquitard (D3)			
☐ Aquatic Fauna (B13)				☐ Microtopographic Relief (D4)			
				☐ FAC-Neutral Test (D5)			
Field Observations:							
Surface Water Present?	Yes	No	X	Depth (inches):			
Water Table Present?	Yes	No	X	Depth (inches):			
Saturation Present?	Yes	No	X	Depth (inches):			
(includes capillary fringe)				Wetland Hydrology Present? Yes No X			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: UVP-BE-1-001

Tree Stratum (Plot size: <u>r=30'</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>0.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <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>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>80</u> (A)</td> <td><u>320</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.00</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>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>80</u> (A)	<u>320</u> (B)	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>80</u>	x 4 = <u>320</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>80</u> (A)	<u>320</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>r=15'</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>r=5'</u>)																				
1. <u>Schizachyrium scoparium</u>	<u>80</u>	<u>Yes</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>																				
Woody Vine Stratum (Plot size: <u>r=30'</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
=Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: UVP-BE-1-001**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		
0-18	10YR 5/4	100					Loamy/Clayey	

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)
☐ 2 cm Muck (A10) (**LRR N**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Iron Monosulfide (A18)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7)

☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
☐ Loamy Mucky Mineral (F1) (**MLRA 136**)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
☐ Umbric Surface (F13) (**MLRA 122, 136**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
☐ Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
☐ Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
☐ Very Shallow Dark Surface (F22)
☐ 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 X

Remarks:

PHOTOGRAPH 1



UVP-BE-1-001, facing north on August 19, 2026.

PHOTOGRAPH 2



UVP-BE-1-001, soil pit on August 19, 2026.

APPENDIX

C OHIO EPA STREAM FORMS AND PHOTOGRAPHS

*Stream photographs were collected at the locations of the stream data points shown in Figure 3, Appendix A.



Primary Headwater Habitat Evaluation Form

36**HHEI Score (sum of metrics 1, 2, 3) :**

SITE NAME/LOCATION **Baku 765 kV Extension**
SITE NUMBER **S-BE-1-001** RIVER BASIN **Scioto** DRAINAGE AREA (mi²) **0.02**
LENGTH OF STREAM REACH (ft) **200** LAT. **38.9967** LONG. **-83.0158** RIVER CODE _____ RIVER MILE _____
DATE **08/19/2026** SCORER **Noah D** COMMENTS **Intermittent Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

**STREAM CHANNEL
MODIFICATIONS:**

☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY

- 1. SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	30%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	30%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	10%
☐ COBBLE (65-256 mm) [12 pts]	0%	☐ CLAY or HARDPAN [0 pt]	0%
☒ GRAVEL (2-64 mm) [9 pts]	30%	☐ MUCK [0 pts]	0%
☐ SAND (<2 mm) [6 pts]	0%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **0**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **12**

TOTAL NUMBER OF SUBSTRATE TYPES: **4**

**HHEI
Metric
Points**

Substrate
Max = 40

16

A + B

Pool Depth
Max = 30

15

Bankfull
Width
Max=30

5

- 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☒ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **8**

- 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **0.9**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☐	☐	Wide >10m
☒	☒	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: _____ NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: _____ Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 08/20/2026 Quantity: _____

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 50

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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

PHOTOGRAPH 3



Stream S-BE-1-001 (intermittent), facing upstream on August 19, 2026.

PHOTOGRAPH 4



Stream S-BE-1-001 (intermittent), facing downstream on August 19, 2026.

PHOTOGRAPH 5



Stream S-BE-1-001 (intermittent), substrate on August 19, 2026.



Primary Headwater Habitat Evaluation Form

75**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku 765 kV Extension**SITE NUMBER **S-BE-1-002**RIVER BASIN **Scioto**DRAINAGE AREA (mi²) **0.42**LENGTH OF STREAM REACH (ft) **200**LAT. **38.9954**LONG. **-83.0165**

RIVER CODE _____ RIVER MILE _____

DATE **08/19/2026**SCORER **O Koval**COMMENTS **Intermittent Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☐ NONE / NATURAL CHANNEL☐ RECOVERED☐ RECOVERING☒ RECENT OR NO RECOVERY

- 1. SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	10%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	0%
☒ BEDROCK [16 pt]	20%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	15%	☐ CLAY or HARDPAN [0 pt]	0%
☒ GRAVEL (2-64 mm) [9 pts]	35%	☐ MUCK [0 pts]	0%
☐ SAND (<2 mm) [6 pts]	0%	☐ ARTIFICIAL [3 pts]	20%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **35****(A)**Substrate Percentage Check **100%****(B)**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **25**TOTAL NUMBER OF SUBSTRATE TYPES: **5****HHEI Metric Points**

Substrate Max = 40

30**A + B**

- 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☒ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

15COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **9**

- 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☒ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

30COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **6****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH**FLOODPLAIN QUALITY**

L	R	(Per Bank)	L	R	(Most Predominant per Bank)	L	R	
☐	☐	Wide >10m	☒	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☒	☒	Moderate 5-10m	☐	☒	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☐	☐	Narrow <5m	☐	☐	Residential, Park, New Field	☐	☐	Open Pasture, Row Crop
☐	☐	None	☐	☐	Fenced Pasture	☐	☐	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: _____ Distance from Evaluated Stream _____
☐ 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: _____ NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: _____ Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: _____ Quantity: _____

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 10

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) 23.7 Dissolved Oxygen (mg/l) _____ pH (S.U.) 8.1 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) Y Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) Y Voucher? (Y/N) N

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

PHOTOGRAPH 6



Stream S-BE-1-002 (intermittent), facing upstream on August 19, 2026.

PHOTOGRAPH 7



Stream S-BE-1-002 (intermittent), facing downstream on August 19, 2026.

PHOTOGRAPH 8



Stream S-BE-1-002 (intermittent), substrate on August 19, 2026.



Primary Headwater Habitat Evaluation Form

26**HHEI Score (sum of metrics 1, 2, 3) :**

SITE NAME/LOCATION **Baku 765 kV Extension**
SITE NUMBER **S-BE-2-001** RIVER BASIN **Scioto** DRAINAGE AREA (mi²) **0.02**
LENGTH OF STREAM REACH (ft) **200** LAT. **38.9917** LONG. **-83.0136** RIVER CODE _____ RIVER MILE _____
DATE **08/24/2026** SCORER **PJR** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

- 1. SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	60%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	5%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	1%	☐ CLAY or HARDPAN [0 pt]	0%
☒ GRAVEL (2-64 mm) [9 pts]	34%	☐ MUCK [0 pts]	0%
☐ SAND (<2 mm) [6 pts]	0%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **1**

(A)

Substrate Percentage Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **12**

TOTAL NUMBER OF SUBSTRATE TYPES: **4**

HHEI Metric Points

Substrate Max = 40

16

A + B

- 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

5

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **1**

- 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

5

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **0.6**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH		FLOODPLAIN QUALITY	
L	R	L	R
☒	☐	☐	☐
(Per Bank) Wide >10m		(Most Predominant per Bank) Mature Forest, Wetland	
☐	☒	☒	☒
Moderate 5-10m		Immature Forest, Shrub or Old Field	
☐	☐	☐	☐
Narrow <5m		Residential, Park, New Field	
☐	☐	☐	☐
None		Fenced Pasture	
		☐	☐
		Conservation Tillage	
		Urban or Industrial	
		Open Pasture, Row Crop	
		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: _____ Distance from Evaluated Stream _____
☐ 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: _____ NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: _____ Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: _____ Quantity: _____

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 35

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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

PHOTOGRAPH 9



Stream S-BE-2-001 (ephemeral), facing upstream on August 24, 2026.

PHOTOGRAPH 10



Stream S-BE-2-001 (ephemeral), facing downstream on August 24, 2026.

PHOTOGRAPH 11



Stream S-BE-2-001 (ephemeral), substrate on August 24, 2026.



Primary Headwater Habitat Evaluation Form

71

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-1**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.25**LENGTH OF STREAM REACH (ft) **100** LAT. **38.992172** LONG. **-83.018199** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **A glenn** COMMENTS **Intermittent Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	20%
☐ BOULDER (>256 mm) [16 pts]	5%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	0%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☒ COBBLE (65-256 mm) [12 pts]	30%	☐ CLAY or HARDPAN [0 pt]	0%
☒ GRAVEL (2-64 mm) [9 pts]	25%	☐ MUCK [0 pts]	0%
☐ SAND (<2 mm) [6 pts]	20%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock

35

(A)

Substrate Percentage
Check

100%

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **21**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40

26

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☒ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30

25

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **20**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check ONLY one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☒ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30

20

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☐	☒	Wide >10m
☒	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☐	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☒	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 60

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.8 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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



PHOTOGRAPH 12



Stream S-BS-1-1 (intermittent), facing upstream on April 14, 2026.

PHOTOGRAPH 13



Stream S-BS-1-1 (intermittent), facing downstream on April 14, 2026.

PHOTOGRAPH 14



Stream S-BS-1-1 (intermittent), substrate on April 14, 2026.



Primary Headwater Habitat Evaluation Form

24

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-2**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.22**LENGTH OF STREAM REACH (ft) **100** LAT. **38.991747** LONG. **-83.013623** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **A glenn** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☒ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	30%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	5%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	5%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	20%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	40%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **5**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40**14**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **4**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**5**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 10

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.7 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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



PHOTOGRAPH 15



Stream S-BS-1-2 (ephemeral), facing upstream on April 14, 2026.

PHOTOGRAPH 16



Stream S-BS-1-2 (ephemeral), facing downstream on April 14, 2026.

PHOTOGRAPH 17



Stream S-BS-1-2 (ephemeral), substrate on April 14, 2026.

APPENDIX

D REPRESENTATIVE PHOTOGRAPHS

PHOTOGRAPH 18

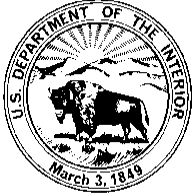


Pond P-BE-1-001, facing east on August 19, 2026.

APPENDIX

E AGENCY COORDINATION

United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994



August 13, 2026

Project Code: 2026-0127100

Dear Mr. Renner:

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 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. Bridges and culverts have also been used as roosts. Additionally, northern long-eared bats have been observed roosting in other human-made structures, such as buildings, barns, 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 Restrictions for Federally Listed Bat Species: The proposed project is in the vicinity of one or more confirmed records of northern long-eared bats. 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. If bridges or culverts will be impacted, we recommend reviewing Appendix K in the most recent "Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines" to determine if the bridge/culvert may be suitable roost habitat. We recommend impacts to suitable bridges and culverts only occur from October 1 and March 31. These seasonal restrictions are recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

If implementation of these seasonal restrictions is not possible, because the proposed project is $\geq$ 1.5 miles from the northern long-eared bat capture/detection location(s), a summer survey may be conducted to document the presence or absence of Indiana bats and northern long-eared bats at the project site. The summer survey must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. In Ohio, summer mist net surveys may only be conducted between June 1 and August 15. If Indiana bats and northern long-eared bats are not detected during the survey, then tree clearing and impacts to bridge/culvert roosts may occur at any time of the year.

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 also warranted. Portal surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office.

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The proposed project is in the vicinity of one or more recent confirmed records of tricolored bats. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

On December 12, 2024 the Service proposed to list the monarch butterfly (*Danaus plexippus plexippus*) as threatened under the ESA. Monarch butterflies are found throughout Ohio and some populations migrate vast distances across multiple generations each year. Many monarchs fly between the U.S., Mexico and Canada – a journey of over 3,000 miles. Monarch populations have declined significantly in recent years. Threats include habitat loss – particularly the loss of milkweed, the monarch caterpillar's sole food source – and mortality resulting from pesticide use. The Service recommends the following actions to maintain habitat and avoid impacts to monarchs in Ohio: revegetate disturbed areas with native plant species including nectar-producing plants and milkweed endemic to the area; limit mowing monarch habitat from March 15 to August 31 when monarchs are breeding and from September 1 to October 31 when large numbers of monarchs are migrating; and avoid the use of pesticides and herbicides in and near monarch habitat.

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.

Bald Eagle: The project is in the range of the bald eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). We recommend that you visit <https://ohiodnr.gov/discover-and-learn/animals/birds/bald-eagle> to determine if the project is within 0.5 mile of a documented eagle nest. Additionally, because not all eagle nests in the state have been mapped, we recommend that an on-site examination be conducted to determine if any large stick nests are visible from project area. If the project is within 0.5 mile of a documented eagle nest or the on-site examination reveals the presence of a potential eagle nest, we recommend visiting <https://www.fws.gov/story/do-i-need-eagle-take-permit> to determine if an eagle take permit is required.

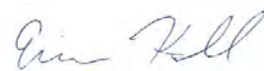
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing 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, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

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,



Erin Knoll
Field Office Supervisor

cc: Matthew.Stooksbury@dnr.ohio.gov
Eileen.Wyza@dnr.ohio.gov



**Department of
Natural Resources**
ohiodnr.gov

Mike DeWine, Governor
Jim Tressel, Lt. Governor
Mary Mertz, Director

Office of Real Estate & Land Management

Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

May 15, 2026

Anthony Glenn
WSP USA Inc.
312 Elm Street #2500
Cincinnati, Ohio 45202

Re: 26-0656_Baku Station

Project: The proposed project involves the construction of an electrical substation.

Location: The proposed project is located in Scioto Township, Pike County, Ohio.

Center Coordinates: (38.9857, -83.0149)

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 within one mile of the project area:

Blue Sucker (*Cyprinus elongatus*), T
Fawnsfoot (*Truncilla donaciformis*), SC
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. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

Location records for the species listed above are provided in a shapefile attachment to this letter. Species location information will not be disclosed, published, or distributed beyond the scope of your

project. 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 project is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree clearing is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree clearing inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, 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 endangered 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 bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in clusters of dead leaves on tree limbs. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree and/or tree limb clearing 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 a Diameter Breast Height (DBH) $\geq 20''$ if possible.

For every project, the DOW also recommends that a winter bat habitat assessment is conducted to determine if potential hibernacula are present within the project area. This is to limit possible disturbances that seasonal tree clearing and/or subsurface work (e.g., trenching, blasting, etc.) may cause to hibernating bats. Potential hibernacula include rocky outcroppings, caves, and underground mines. Direction on how to conduct winter habitat assessments can be found in the joint guidance [OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE \(OH-FIELD OFFICE\) JOINT GUIDANCE FOR BAT SURVEYS](#). If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile permanent tree clearing buffer around the hibernaculum entrance. Limited summer or winter tree clearing may be acceptable after consultation with the DOW. If a habitat assessment for projects involving subsurface disturbance finds that a potential hibernaculum is present within 5 miles of the project area, please consult with Eileen Wyza for project recommendations. If no tree clearing 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*)

Northern riffleshell (*Epioblasma torulosa rangiana*)

rayed bean (*Villosa fabalis*)

State Endangered

Ohio pigtoe (*Pleurobema cordatum*)
washboard (*Megalonias nervosa*)
yellow sandshell (*Lampsilis teres*)

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

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

State Endangered

bigeye shiner (*Notropis boops*)
goldeye (*Hiodon alosoides*),
popeye shiner (*Notropis ariommus*),
shoal chub (*Macrhybopsis hyostoma*),
shortnose gar (*Lepisosteus platostomus*),
shovelnose sturgeon (*Scaphirhynchus platyrhynchus*),

State Threatened

blue sucker (*Cycleptus elongatus*),
channel darter (*Percina copelandi*),
paddlefish (*Polyodon spathula*)
river darter (*Percina shumardi*),

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the timber rattlesnake (*Crotalus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species. In addition to using wooded areas, the timber rattlesnake also utilizes sunlit gaps in the canopy for basking and deep rock crevices known as den sites for overwintering. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the midland mud salamander (*Pseudotriton montanus diastictus*), a state threatened species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern harvest mouse (*Reithrodontomys humulis*), a state threatened species. This species relies on early successional habitats dominated by herbaceous vegetation with less than 30% woody material. The DOW recommends that early successional habitats be preserved where possible. If early successional habitats won't be impacted, this project is not likely to impact this species.

Due to the potential for 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.

Geological Survey: The Division of Geological Survey has the following comments.

Impacts on Public and Private Water Supplies

The proposed project area is in Scioto Township in Pike County. The construction of this project is not expected to have significant impacts on public or private well yields. The Groundwater Vulnerability Index ranges from 103-189, which equates to a moderate to high groundwater vulnerability (OEPA, 2014). The construction of the facility is not expected to pose a significant groundwater contamination risk.

Groundwater Inventory

Groundwater resources are limited throughout the project area. Wells developed in bedrock are likely to yield 3 to 250 gallons per minute. Much of the project area has a yield of 3-10gpm. A small sliver in the western edge of the project area has an expected yield up to 100gpm, and another section in the western fourth of the project area has an expected yield up to 250gpm (Potucek and Others, 2025).

ODNR has record of 55 water wells drilled within one mile of the project area. These wells range in depth from 25 to 150 feet, with an average depth of 59 feet. Shale is listed as the primary aquifer on 23 of the wells. Sand and gravel is listed as the primary aquifer for 13 wells. The remaining wells are divided among several aquifers. Sustainable yields of 0 to 25 gallons per minute have been reported for 3 wells within one mile of the project area, with the average sustainable yield being 12 gallons per minute (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Water Wells).

Oil, Gas and Mining

ODNR has record of 10 oil and gas wells within one mile of the proposed project area. Most of these wells are listed as Plugged and Abandoned. 8 wells listed as plugged and abandoned. One well listed as permit expired. One well with unknown status (Ohio Department of Natural Resources, Division of Oil and Gas, Ohio Oil and Gas Wells Locator).

ODNR does not have record of any mining operations within the project area (Ohio Department of Natural Resources, Division of Mineral Resources, Mines of Ohio).

Geohazards

ODNR has record of several earthquakes recorded within 15-miles of the site. Details regarding these events are listed in the chart below:

Date	Magnitude	Distance to Site Boundary	County	Township
December 21,2014	2.0	4.74 miles	Pike	Union
March 20, 2019	2.1	9.88 miles	Scioto	Madison

Karst

Karst features usually form in areas that are covered by thin or no glacial drift and the bedrock is limestone or dolomite. The nearest verified sinkholes are 15 miles to the west of the project area. There are no sinkholes in the project area, and the underlying shale and sandstone makes formation of sinkholes unlikely. (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Karst).

Drift Thickness and Bedrock Geology

The project area lies outside of the glacial margin of the state. The uppermost bedrock unit in the project area is the Logan and Cuyahoga Formations Undivided. This unit is Mississippian-age and consists of beds of brown to gray medium grained sandstone containing lenses and beds of coarse sand grains to fine-pebble conglomerates interbedded with clayey siltstone and shale. Beds may be intertongued and intergraded. rightmost edge of project area. Underlying the Logan and Cuyahoga Formations Undivided is the Devonian and/or Mississippian-age Sunbury Shale, Berea Sandstone, and Bedford Shale Undivided. This unit is characterized by gray to brown shale and interbedded sandstone. Gray shale is the dominate lithology. vast majority of project area. Underlying the 0 is the Devonian-age Ohio and Olentangy Shales Undivided. This unit is characterized by greenish gray to gray shale. The unit is clayey and often contains disseminated pyrite. Locally this unit may contain lenses or nodules of limestone as well as thin beds of brownish-black shale in the upper portion. leftmost edge of project area. Bedrock may be exposed in outcrops and roadcuts within the boundary of the project area (Slucher et al, 2006).

Soils

According to the USDA Web Soil Survey, the project area consists primarily of soils derived from loess over Illinoian till. Fox, Omulga, and Princeton are the most common soil series found within the boundaries of the project area. These soils have a silt and sand loam texture and together cover over 81% of the project area. The Princeton Soil which makes up approximately 42% of the project area is a non-hydric soil and is not ponded. (USDA Web Soil Survey). There is a low risk of shrink-swell potential in these soils. Slopes vary, with some exceeding 30% grade. Slopes are steepest in the center of the project area (Hendershot, 1990 and USDA Web Soil Survey).

Water Resources: The Division of Water Resources has not conducted a project specific review and/or comments, however, the guidance provided below should be reviewed by the Environmental Review applicant for applicability on this project and subsequent compliance.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer [website](#) can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

Ohio Revised Code (ORC) Section 1521.16 mandates that any owner of a property or a facility that has the capacity of withdrawing 100,000 gallons per day (gpd) of water from groundwater, surface water, or both must register with the Division of Water Resources' [Water Withdrawal Facilities Registration \(WWFR\) Program](#) and report their withdrawals annually.

Additional coordination may be required depending on the location of the withdrawal and consumptive use. Permitting may be required for:

- New or increased consumptive use of water averaging 2 million gallons per day (mgd) within 30 days within the Ohio River basin.
- New or increased withdrawal and consumptive water use in the Lake Erie watershed averaging 1 million gallons per day (mgd) or more in 90 days.
- New or increased water withdrawal directly from Lake Erie averaging 2.5 million gallons per day (mgd) or more in 90 days.
- Diversion or movement of water across the Ohio River and Lake Erie basin divide.

If the project does not involve activities that are subject to water withdrawal regulatory requirements as described above, then no further action is required. For more information, visit the [Water Inventory & Planning website](#).

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

Expiration: ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.

Appendix D Environmental Survey Reports

BAKU STATION PROJECT

ENVIRONMENTAL SURVEY REPORT



DATE: AUGUST 2026

PREPARED FOR:
AEP TRANSMISSION
8600 SMITH'S MILL ROAD
NEW ALBANY, OH 43054



WSP USA
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202



WSP.COM



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1 BACKGROUND INFORMATION

1.1 INTRODUCTION

On behalf of American Electric Power (AEP) Ohio Transmission Company, Inc. (AEP Ohio Transco), WSP USA (WSP) conducted environmental surveys for the proposed Baku Station Project (Project). The environmental survey included a wetland and water resource delineation and characterization of potential habitat for state and federally listed species.

This report provides the methods and results of a field survey conducted on April 14–15, 2026, including a delineation of wetlands and other potential Waters of the United States (WOTUS), general habitat characterization, and an assessment of threatened and endangered species habitat within an approximately 407.2-acre environmental survey area (ESA) encompassing the footprint of the proposed station and adjacent structures, as well as corresponding work pads and access roads. Proposed access roads and off-ROW work areas which extend beyond the ESA will be addressed as-needed in future addenda to this document.

As shown in Figure 1 (Appendix A), the Project is located within Scioto Township in Pike County, Ohio. Additionally, the Project is within the Wakefield, Ohio U.S. Geological Survey (USGS) 7.5-minute topographic map quadrangle boundary. The Environmental Survey Area (ESA) encompasses an area around the proposed Baku Station Project (centrally located at 38.9843°, -83.0128°). The ESA is located directly east of Wakefield Mound Road and north of Big Run Road. Table 1-1 provides an overview of the project location.

TABLE 1-1: GENERAL PROJECT INFORMATION

COUNTY:	Pike
TOWNSHIP(S):	Scioto
COORDINATES:	38.9843°, -83.0128°
USGS QUADRANGLE(S):	Wakefield
ENVIRONMENTAL SURVEY AREASIZE (AC.):	407.2
ELEVATION RANGE (FT. ABOVE SEA LEVEL):	580-720
8-DIGIT HYDROLOGIC UNIT CODE:	05060002
12-DIGIT HYDROLOGIC UNIT CODE(S):	05060002-16-02
DATE(S) OF SURVEY:	April 14–15, 2026

1.2 DRAINAGE BASINS

All streams in the vicinity of the ESA drain to Big Run, which flows into the Scioto River, a traditionally navigable waterway (TNW). The ESA is located within the Lower Scioto drainage basin (HUC [hydrologic unit code] 05060002). The ESA lies within the Big Run–Scioto River sub-watershed, as outlined in Table 1-2 (USDA, 2019).



TABLE 1-2: HUCs MAPPED WITHIN THE ESA

8-DIGIT HUC CODE ¹	8-DIGIT HUC CODE NAME ¹	12-DIGIT HUC CODE ¹	12-DIGIT HUC NAME
05060002	Lower Scioto	05060002-16-02	Big Run-Scioto River

2 METHODOLOGY

WSP ecologists traversed the ESA to conduct a wetland and waters delineation on April 14–15, 2026. The physical boundaries of aquatic resources were recorded using a Global Positioning System (GPS) unit rated for sub-meter accuracy.

Prior to conducting field surveys, WSP ecologists completed a desktop review by analyzing several federal and state documents for the presence of wetland and streams. This review included Natural Resources Conservation Service (NRCS) soil survey data, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps of Ohio, USGS 7.5-minute topographic maps, and USGS National Hydrography Dataset (NHD) stream and river data as an exercise to identify the occurrence and location of potential wetlands and streams.

2.1 WETLAND DELINEATION AND ASSESSMENT

The USACE and the U.S. Environmental Protection Agency (USEPA) define wetlands as areas inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR, Part 328.3).

Wetlands were delineated according to Section 404 of the Clean Water Act, Technical Report Y-87-1 *Corps of Engineers Wetlands Delineation Manual (87 Manual)* (Environmental Laboratory, 1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, (Version 2.0) (Regional Supplement)* (USACE, 2012). Representative data points were collected for wetlands and corresponding, adjacent upland areas. Wetland data was recorded on the USACE *Regional Supplement Wetland Determination Data Forms*.

Wetland vegetation communities were classified according to the *Classification of Wetlands and Deepwater Habitats of the United States*, commonly referred to as the Cowardin Classification System (Cowardin et al., 1979). Wetlands within the ESA were assessed using the OEPA *Ohio Rapid Assessment Method for Wetlands v. 5.0 (ORAM)* to determine the ecological quality and level of disturbance (Mack, 2001).

2.2 STREAM DELINEATION AND ASSESSMENT

To determine the presence or absence of streams within the ESA, flowlines and surface water conveyances were evaluated for the presence of a defined bed and bank and evidence of an ordinary high-water mark (OHWM). The OHWM is defined in the USACE National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (USACE, 2025). Generally, the OHWM is identified by a line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. (USACE, 2025).



Stream assessments were conducted using the methods described in the OEPA's Methods for Assessing Habitat in Flowing Waters: Using OEPA's *Qualitative Habitat Evaluation Index* (Rankin, 2006) and *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams, Version 3* (Davic, 2012).

2.3 THREATENED AND ENDANGERED SPECIES ASSESSMENT

Prior to field surveys, WSP submitted requests for review to the USFWS and requests for Environmental Review to the Ohio Department of Natural Resources (ODNR) on April 15, 2026. Comments and recommendations were received from USFWS on June 1, 2026. An Environmental Review was received from ODNR on May 15, 2026.

Characterization of habitat types within the ESA were made based on observations collected during field work and a review of publicly available aerial imagery. Habitat within the ESA was characterized by broad types (i.e. successional hardwood woodland, cultivated cropland, old field, etc.) based on dominant canopy, plant types (forbs, sedges, grasses, trees, shrubs, etc.), presence of impervious surfaces, and the extent and type of historical/current disturbance. Assessment of potentially suitable habitat for, and subsequently potential impacts to, threatened and endangered species were based on comments from USFWS, and ODNR, the characterization of general habitat types in relation to broad habitat requirements for the individual species, and the anticipated Project footprint and standard operating procedures employed by AEP for construction of comparable projects.

Per ODNR comments and based on the protocols identified in the *Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines* and the *Ohio Division of Wildlife and U.S. Fish and Wildlife Service (OH-Field Office) Joint Guidance for Bat Surveys*, WSP performed a desktop review for potential hibernacula within a 5-mile radius of the ESA. This included a review of publicly available aerial imagery, USGS 7.5-minute topographic maps for the Greenup, Ohio quadrangle, as well as the ODNR *Mines of Ohio Viewer*, and the ODNR *Karst Interactive Map*. Field observations within the ESA and its immediate vicinity through all stages of the Project were also taken into account in this review.



3 RESULTS

WSP ecologists surveyed the approximately 407.2-acre ESA on April 14–15, 2026 by walking the ESA and evaluating for wetlands and other WOTUS. The WSP ecologists delineated 10 wetlands, 22 streams, and 3 open water features within the ESA. The results of the desktop review are provided in Figure 2 (Appendix A). The location and extents of delineated features are provided in Figure 3 (Appendix A).

No potential bat hibernacula were identified within the vicinity of the ESA. Potentially suitable summer roost habitat for state and federal listed bat species may be provided by forested areas within the ESA including 157.3 acres of successional hardwood woodland. No potentially suitable habitat for state-listed fish and freshwater mussel species was identified within the ESA.

3.1 DESKTOP REVIEW

3.1.1 Soils Evaluation

According to the NRCS Soil Data for Pike County, Ohio, there are 13 soil map units shown within the ESA, as presented in Table 3-1 as well as Figure 2 (Appendix A). The soils observed by the WSP ecologists during the reconnaissance of the ESA were consistent with the NRCS soil survey mapping. Approximately 95% of ESA is underlain by mapped soil units rated as non-hydric, according to the soil survey data.

TABLE 3-1: SOIL UNITS MAPPED WITHIN THE ESA

SOIL UNIT SYMBOL	SOIL UNIT NAME	PERCENT HYDRIC	HYDRIC RATING ¹	AREA WITHIN ESA (ac.)
FoA	Fox loam, 0 to 2 percent slopes	0	Non-Hydric	28.4
FoB	Fox loam, 2 to 6 percent slopes	0	Non-Hydric	25.1
Ge	Genesee silt loam, occasionally flooded	0	Non-Hydric	2.0
GpC	Gilpin silt loam, 8 to 15 percent slopes	0	Non-Hydric	0.8
Hu	Huntington silt loam, occasionally flooded	0	Non-Hydric	6.1
Omu1B1	Omulga silt loam, 2 to 6 percent slopes	0	Non-Hydric	54.6
Omu1C1	Omulga silt loam, 6 to 12 percent slopes	0	Non-Hydric	51.6
PrB	Princeton fine sandy loam, 3 to 8 percent slopes	0	Non-Hydric	65.8
PrC	Princeton fine sandy loam, 8 to 15 percent slopes	0	Non-Hydric	32.1
PrD	Princeton fine sandy loam, 15 to 30 percent slopes	0	Non-Hydric	75.3
RdC	Rarden silt loam, 8 to 15 percent slopes	0	Non-Hydric	23.9
SpF	Shelocta-Latham association, steep	0	Non-Hydric	22.4
Wm	Wilbur silt loam, occasionally flooded	3	Predominately Non-Hydric	19.2

Total Area of Non-Hydric Soils 388.1

Total Area of Predominantly Non-Hydric Soils 19.2

¹Non-Hydric = 0% hydric soil component; Predominantly Non-Hydric = 1-32%; Partially Hydric = 33-65%; Predominantly Hydric = 66-99%; and All Hydric = 100%.

Source: Soil Survey Staff, NRCS. Web Soil Survey.



3.1.2 National Wetlands Inventory Review

According to the NWI maps of the Wakefield, Ohio quadrangle, there are seven mapped NWI features within the ESA. The location of mapped NWI features in the vicinity of the ESA is shown on Figure 2 (Appendix A).

TABLE 3-2: NWI FEATURES MAPPED WITHIN THE ESA

NWI CODE	NWI DESCRIPTION	MAP PAGE	ASSOCIATED DELINEATED RESOURCE
PEM1A	Palustrine Emergent, Persistent, Temporarily Flooded	Page 1	W-BS-1-2
R4SBC	Riverine, Intermittent Stream Bed, Seasonally Flooded	Page 1	S-BS-1-1
R4SBC	Riverine, Intermittent Stream Bed, Seasonally Flooded	Pages 3-4	S-BS-1-4
R4SBC	Riverine, Intermittent Stream Bed, Seasonally Flooded	Pages 3, 6, and 8	S-BS-5-2
PUBGx	Palustrine Unconsolidated Bottom, Intermittently Exposed, Excavated	Pages 1	P-BS-1-2
PUBGx	Palustrine Unconsolidated Bottom, Intermittently Exposed, Excavated	Page 5	P-BS-1-3
PUBGh	Palustrine Unconsolidated Bottom, Permanently Flooded, Excavated	Page 1	P-BS-1-1

Source: USFWS National Wetlands Inventory Mapper

3.1.3 FEMA Floodplain Review

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panels 39131C0325C effective November 4, 2010, approximately 33.2 acres of the ESA are within mapped 100-year floodplain areas. No mapped floodways were identified which overlap the ESA, as indicated in Figure 2 (Appendix A).

3.2 DELINEATION RESULTS

3.2.1 Delineated Wetlands

The WSP ecologists identified 10 wetlands totaling 2.77 acres within the ESA. This included nine palustrine emergent (PEM) wetlands totaling 2.66 acres and one palustrine forested (PFO) wetland totaling 0.11 acres.

Seven of the delineated wetlands, totaling 2.54 acres, were identified as Category One (low quality) wetlands. Three wetlands, 0.23 acres, were identified as Category Two (moderate quality) wetlands. Wetlands W-BS-1-1, W-BS-5-4, and W-BS-5-5 are directly abutting intermittent streams, likely to be considered relatively permanent waterways (RPWs), and which appear to drain to tributaries to Big Run, a tributary to the Scioto River, a TNW. Therefore, these delineated wetlands are likely to be considered jurisdictional by the USACE. It should be noted that final determination of wetland jurisdiction will be made by the USACE.

The location and extent of delineated wetlands within the ESA are displayed in Figure 3 (Appendix A). Table 3-3 provides specific wetland habitat types, acreages corresponding to each route and the entire ESA, ORAM category, as well as information regarding jurisdictional status. Wetland Determination Data Forms, ORAM data forms, and representative photographs of each wetland are provided in Appendix B.



TABLE 3-3: WETLANDS DELINEATED WITHIN THE ESA

WETLAND ID	LOCATION		COWARDIN CLASS. ¹	DELINEATED AREA ² (ACRES)	ORAM		HYDROLOGIC CONNECTION
	LAT.	LON.			SCORE	CATEGORY	
W-BS-1-1	38.9893	-83.0210	PEM	0.91	19.5	Category 1	Stream S-BS-1-4 (Intermittent)
W-BS-1-2	38.9909	-83.0202	PEM	1.14	21.5	Category 1	N/A
W-BS-1-3	38.9849	-83.0216	PEM	0.31	26	Category 1	N/A
W-BS-1-4	38.9884	-83.0188	PEM	0.09	10.5	Category 1	N/A
W-BS-5-1	38.9844	-83.0111	PEM	0.02	26	Category 1	Stream S-BS-5-3 (Ephemeral)
W-BS-5-2	39.9847	-83.0136	PEM	0.05	26	Category 1	N/A
W-BS-5-3	38.9842	-83.0143	PEM	0.03	42	Category 2	Stream S-BS-5-7a (Ephemeral)
W-BS-5-4	38.9835	-83.0172	PEM	0.09	44	Category 2	Stream S-BS-5-7b (Intermittent)
W-BS-5-5	38.9801	-83.0177	PEM	0.02	22	Category 1	Stream S-BS-5-11 (Intermittent)
W-BS-5-6	38.9805	-83.0206	PFO	0.11	33	Category 2	N/A

PEM Wetland Areas (9) 2.66

PFO Wetland Areas (1) 0.11

Total Wetland Area in ESA 2.77

¹PEM = palustrine emergent, PSS = palustrine scrub/shrub, PFO = palustrine forested;

²Acres reflect the area delineated within the ESA and are approximate based on GPS data and are rounded to the nearest 0.01-acre.

3.2.2 Delineated Streams

The WSP ecologists identified 22 streams totaling 19,561 linear feet (lf) within the ESA. This included 16 ephemeral streams totaling 10,061 lf, and six intermittent streams totaling 9,500 lf. No perennial streams were identified within the ESA.

All streams within the ESA were evaluated with the HHEI methodology. Streams S-BS-1-1, S-BS-1-4a, S-BS-5-2, S-BS-5-7b, S-BS-5-9, and S-BS-5-11 were identified as intermittent streams which flow to the Scioto River or its tributaries and are likely to be considered RPWs. Therefore, the identified intermittent streams will likely be considered jurisdictional. It should be noted that the USACE will make the final determination of jurisdictional status.

Locations of the identified streams within the ESA are shown in Figure 3 (Appendix A). Table 3-4 provides waterbody name, flow regime, stream length, field evaluation data, and jurisdictional status. Completed OEPA HHEI forms as well as representative photographs of each delineated stream are provided in Appendix C.



TABLE 3-4: STREAMS DELINEATED WITHIN THE ESA

STREAM ID	LOCATION		STREAM NAME	STREAM TYPE	DELINEATED LENGTH ¹ (FEET)	BANKFULL WIDTH (FEET)	OHWM WIDTH (FEET)	FIELD EVALUATION	
	LAT	LONG						METHOD (SCORE)	CLASS
S-BS-1-1	38.9921	-83.0181	UNT to Scioto River	Intermittent	259	5	3	HHEI (71)	Modified Small Drainage Warmwater Stream
S-BS-1-2	38.9917	-83.0136	UNT to Scioto River	Ephemeral	448	3	1	HHEI (24)	Modified Ephemeral Stream
S-BS-1-3	38.9912	-83.0081	UNT to Scioto River	Ephemeral	872	2	0.5	HHEI (18)	Modified Ephemeral Stream
S-BS-1-4b	38.9889	-83.0122	UNT to Scioto River	Ephemeral	568	5	1	HHEI (49)	Modified Small Drainage Warmwater Stream
S-BS-1-4a	38.9882	-83.0148	UNT to Scioto River	Intermittent	2,933	6	3	HHEI (49)	Modified Small Drainage Warmwater Stream
S-BS-1-5	38.9873	-83.0183	UNT to Scioto River	Ephemeral	710	1	1	HHEI (24)	Modified Ephemeral Stream
S-BS-1-6	38.9861	-83.0217	UNT to Scioto River	Ephemeral	1,771	4	2	HHEI (34)	Modified Small Drainage Warmwater Stream
S-BS-1-7	38.9909	-83.0175	UNT to Scioto River	Ephemeral	1,024	2	1	HHEI (50)	Modified Small Drainage Warmwater Stream
S-BS-1-8	38.9838	-83.0201	UNT to Scioto River	Ephemeral	709	6	3	HHEI (50)	Modified Small Drainage Warmwater Stream
S-BS-5-1	38.9836	-83.0094	UNT to Scioto River	Ephemeral	1,378	4	1.5	HHEI (33)	Modified Small Drainage Warmwater Stream
S-BS-5-2	38.9841	-83.0108	UNT to Scioto River	Intermittent	3,355	7	2.5	HHEI (39)	Modified Small Drainage Warmwater Stream
S-BS-5-3	38.9842	-83.0111	UNT to Scioto River	Ephemeral	366	6	3	HHEI (38)	Modified Small Drainage Warmwater Stream
S-BS-5-4	38.9839	-83.0115	UNT to Scioto River	Ephemeral	101	3	1	HHEI (22)	Modified Ephemeral Stream
S-BS-5-5	38.9821	-83.0118	UNT to Scioto River	Ephemeral	429	4	1	HHEI (32)	Modified Small Drainage Warmwater Stream



TABLE 3-4: STREAMS DELINEATED WITHIN THE ESA

STREAM ID	LOCATION		STREAM NAME	STREAM TYPE	DELINEATED LENGTH ¹ (FEET)	BANKFULL WIDTH (FEET)	OHWM WIDTH (FEET)	FIELD EVALUATION	
	LAT	LONG						METHOD (SCORE)	CLASS
S-BS-5-6	38.9819	-83.0118	UNT to Scioto River	Ephemeral	153	4	1.5	HHEI (32)	Modified Small Drainage Warmwater Stream
S-BS-5-7a	38.9841	-83.0145	UNT to Scioto River	Ephemeral	413	6	3	HHEI (22)	Modified Ephemeral Stream
S-BS-5-7b	38.9834	-83.0174	UNT to Scioto River	Intermittent	977	3	1	HHEI (54)	Modified Small Drainage Warmwater Stream
S-BS-5-8	38.9831	-83.0174	UNT to Scioto River	Ephemeral	348	6	2.5	HHEI (34)	Modified Small Drainage Warmwater Stream
S-BS-5-9	38.9829	-83.0178	UNT to Scioto River	Intermittent	869	7	3	HHEI (35)	Modified Small Drainage Warmwater Stream
S-BS-5-10	38.9836	-83.0180	UNT to Scioto River	Ephemeral	446	4	1.5	HHEI (29)	Modified Ephemeral Stream
S-BS-5-11	38.9802	-83.0179	UNT to Scioto River	Intermittent	1,107	6	3	HHEI (44)	Modified Small Drainage Warmwater Stream
S-BS-5-12	38.9808	-83.0185	UNT to Scioto River	Ephemeral	325	3	1	HHEI (26)	Modified Ephemeral Stream

Total Ephemeral Stream Length (16) 10,061
 Total Intermittent Stream Length (6) 9,500
Total Stream Length in ESA (22) 19,561

Notes: UNT = unnamed tributary

¹Lengths are approximate based on GPS data and are rounded to the nearest foot.



3.2.3 Delineated Open Water Habitat

During the environmental surveys, the WSP ecologists identified three open water features totaling 1.36 acres within the ESA. All three open water features were identified as man-made artificial impoundments excavated in upland soils and not constructed from the impoundment of an historical stream or wetland and therefore will likely be considered non-jurisdictional by the USACE.

Locations of the identified open water features within the ESA are shown in Figure 3 (Appendix A). Table 3-5 provides an overview of the delineated open water features. Representative photographs were taken of each open water feature during the field survey and are provided in Appendix D.

TABLE 3-5: OPEN WATER FEATURES DELINEATED WITHIN THE ESA

BASIN ID	LOCATION		DELINEATED AREA ¹ (acres)	JURISDICTIONAL?
	LAT	LON		
P-BS-1-1	39.2247	-82.1946	0.09	No
P-BS-1-2	39.2253	-82.1950	0.51	No
P-BS-1-3	38.9834	-83.0195	0.76	No

Total Open Water Acreage 1.36

¹ Acreages reflect the area delineated within the ESA and are approximate based on GPS data and are rounded to the nearest 0.01-acre.

3.2.4 Vegetative Communities

The WSP ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys. Land uses within the ESA are generally composed of hardwood woodlands, agricultural land uses, developed land uses, and previously developed areas in varying stages of reversion to native habitat types, as described below in Table 3-6. A breakdown of vegetated land cover is provided, overlain on aerial photography in Figure 4 (Appendix A).

TABLE 3-6: VEGETATIVE COMMUNITIES WITHIN THE ESA

VEGETATIVE COMMUNITY	DESCRIPTION	ACREAGE WITHIN THE ESA	PERCENTAGE OF ESA
Developed, Open Space	Developed areas, including residential and commercial properties, were observed within the ESA. These landscaped areas are frequently mowed or maintained grasses and forbs.	25.6	6.3%
Old Field	Old Field habitats represent the successional stage between Developed, Open Space and Scrub/Shrub habitat. Often times these areas are previously developed areas that have been left fallow, which area maintained (mowed) once or twice a year.	10.6	2.6%
Pasture	Areas of grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20% of total vegetation.	175.8	43.2%
Scrub Shrub	Areas dominated primarily by shrubs less than 5 meters tall with shrub canopy typically greater than 20% of total vegetation. This class includes true shrubs, and young trees in an early successional stage.	33.7	8.3%



TABLE 3-6: VEGETATIVE COMMUNITIES WITHIN THE ESA

VEGETATIVE COMMUNITY	DESCRIPTION	ACREAGE WITHIN THE ESA	PERCENTAGE OF ESA
Successional Hardwood Forest	Uplands dominated by trees. This can also include areas dominated primarily by disturbance tolerant non-native and/or invasive trees or non-native planted species	157.3	38.6%
Wetlands and Waterbodies	Wetlands and waterbodies delineated within the ESA boundaries.	4.1	1.0%
Total		407.2	100%

3.3 Threatened and Endangered Species Coordination

3.3.1 USFWS Coordination

A request for review was submitted to the USFWS on April 15, 2026. In an email dated June 1, 2026, the USFWS provided comments on the Project with regards to federally-listed threatened and endangered species within the Project vicinity. The USFWS indicated that there are no federal wildlife refuges, wilderness areas, or critical habitat within the vicinity of the Project. Comments from USFWS regarding protected species are provided in Table 3-7. The USFWS review comments have been included in Appendix E.

- USFWS noted that the ESA is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and is within the vicinity of at least one confirmed record of northern long-eared bat. This record is 1.5 miles or more from the project and thus, a presence/absence survey may be conducted to determine bat species presence/absence with the Project footprint. USFWS has recommended that removal of any trees greater or equal to three inches diameter at breast height (dbh) be conducted between October 1 and March 31. Summer presence/absence surveys may be conducted between June 1 and August 15 by an USFWS-approved surveyor and must be designed and conducted in coordination with the USFWS Ohio Field Office and ODNR. Based on guidance in the 2025 *Ohio Division of Wildlife and U.S. Fish and Wildlife Service (OH-Field Office) Joint Guidance for Bat Surveys* (ODNR/USFWS 2025), an AEP contractor conducted mist net surveys July 3rd – July 6th, 2026. The survey captured and tagged one tri-colored bat and tracked its roost location west of the Project area. Additional discussion of agency comments and habitat suitability for state and federally listed bat species may be found below in Section 3.3.2.
- USFWS noted that the ESC is in the range of the Bald Eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Protection Act, and recommended that an on-site examination be performed. WSP did not identify any bald eagle nests when on-site. The closest recorded bald eagle nest based on the guidance of ODNR's eagle nest interactive mapping website (<https://ohiodnr.gov/discover-and-learn/animals/birds/bald-eagle>), is approximately 2.6 miles northwest of the ESA. Therefore, based on USFWS guidance, a bald eagle permit is not required.
- USFWS noted that the ESA is within the range of the monarch butterfly (*Danaus plexippus plexippus*). USFWS has recommended revegetation of disturbed areas with native plant species and limitations on



mowing in monarch habitat from March 15 to October 31. Potentially suitable habitat may be provided by 189 acres of vegetation zones which may support milkweeds, including open areas such as old fields, pastures, emergent wetlands, as well as forest edges. It is anticipated that a regionally appropriate native seed mix will be used as appropriate for post-construction restoration.

3.3.2 ODNR Coordination

A request for Environmental Review was submitted to the ODNR on April 15, 2026. The ODNR Environmental Review was received on May 15, 2026. A review of Natural Heritage Database identified no records of state- and/or federally-listed species within a one-mile radius of the Project. Three mussel beds were identified within a one-mile radius of the ESA. However, since no in water work is anticipated in a perennial stream, no impacts to freshwater mussels is anticipated to occur because of Project activities. No high-quality natural communities were identified within the vicinity of the Project. Using this as guidance, WSP has provided observations of threatened and endangered species habitat within the vicinity of the ESA in Table 3-7. The ODNR Environmental Review has been included in Appendix F.

- Based on the protocols identified in the *Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines* (USFWS 2024) and the *Ohio Division of Wildlife and U.S. Fish and Wildlife Service (OH-Field Office) Joint Guidance for Bat Surveys* (ODNR/USFWS 2025) WSP performed a desktop review for potential hibernacula within the vicinity of the Project, as displayed on Figure 5 (Appendix A). Topographic maps for the Wakefield, Ohio quadrangle did not depict caves, cliffs/ledges, or karst topography within a 0.25-mile radius of the ESA. A review of aerial imagery also did not provide evidence of these habitat types. According to the ODNR *Mines of Ohio Viewer*, no documented mine openings are located within a 0.25-mile radius of the ESA. The closest documented mine opening is associated with the Swartz Mine and occurs at the approximate coordinate 38.9786°, -82.8777°, approximately 6.9 miles east of the ESA. According to the ODNR *Karst Interactive Map*, the ESA does overlap an area of mapped karst geology, but no individual karst exposures were identified. No potential hibernacula were identified within the ESA during the environmental survey.
- Based on observations collected during the environmental surveys and a review of aerial imagery, suitable summer habitat was identified within the ESA, provided by 157.3 acres of successional hardwood woodland. However, any tree trimming/clearing will occur within the recommended clearing window (October 1st – March 31st) to avoid any unforeseen impacts to these species or their habitat. Therefore, no impacts to state- and/or federally-listed bat species are anticipated. If any tree clearing will occur outside the recommended clearing window, appropriate coordination with USFWS and ODNR will occur to seek permission for out of season tree clearing. Additional information pertaining to the state- and federally-listed bat species is provided in Table 3-7.
- ODNR indicated the project is within the vicinity of records of protected bat species. Summer tree clearing is not recommended and presence/absence surveys may not be conducted during the same time period. It is planned that all tree clearing will be conducted during the October 1 through March 31.
- ODNR has recommended that no in-water work occur in perennial stream from March 15 through June 30 to avoid impacts to state-listed fish species. WSP anticipates that no in-water work will be proposed in perennial streams and therefore, impacts to state-listed fish species are not expected as a result of the Project.



- ODNR comments stated that the Project is to have no impact on native freshwater mussels. The ODNR Environmental Review included Natural Heritage Database records of three mussel beds within a one-mile radius of the ESA. Based on ODNR comments and guidance provided in the April 2025 *Ohio Mussel Survey Protocol*, potentially suitable mussel habitat may be provided by perennial streams with a drainage area greater than five square miles at the location of impact. There were no perennial streams delineated within the ESA. Therefore, no impacts to these mussel species are anticipated to occur, and surveys for freshwater mussels will not be required for completion of the Project.
- ODNR comments stated that there is potential for impacts on the state listed eastern harvest mouse due to potential habitat on-site. The pasture and old field community within the ESA could be in the early successional phase which the mouse inhabits. ODNR recommends that early successional habitat should be preserved where possible. If no work is to be done in early successional habitat, the project is then not likely to impact the species.
- The Project is within the range of the timber rattlesnake (*Crotalus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species. In addition to using wooded areas, the timber rattlesnake also utilizes sunlit gaps in the canopy for basking and deep rock crevices known as den sites for overwintering. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this snake species.
- The Project is within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this toad species.
- The Project is within the range of the midland mud salamander (*Pseudotriton montanus diastictus*), a state threatened species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this salamander species.



TABLE 3-7: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESA	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Mammals						
Indiana bat (<i>Myotis sodalis</i>)	Endangered	Endangered	Winter hibernacula are provided by caves and mines. Summer roost habitat typically includes live or dead trees with exfoliating bark, crevices, or cavities that can be used for roosting. Open sub-canopy areas and flight corridors are important to allow maneuvering during foraging. Proximity to water sources provides a greater density of insect prey.	Yes (Summer)	USFWS and ODNR comments recommended seasonal tree clearing dates (October 1 through March 31) to avoid impacts protected bat species.	Suitable summer habitat was identified within the ESA. However, any tree clearing is expected to occur during the October 1 to March 31 clearing window.
northern long-eared bat (<i>Myotis septentrionalis</i>)	Endangered	Endangered			USFWS indicated the ESA is in the vicinity of records of Indiana bat. ODNR indicated that summer surveys may not be conducted between June 1 and August 15 to determine presence/absence.	A mist net survey was conducted July 3 rd – July 6 th 2026. One tricolored bat was captured, tagged, and tracked to roost habitat west of the Project.
Tricolored bat (<i>Perimyotis subflavus</i>)	Endangered	Proposed Endangered			ODNR and USWFS recommended a desktop habitat assessment for potential hibernacula within a 0.25-mile radius of the ESA.	No potential hibernacula were identified within 0.25-miles of the ESA. Therefore, adverse effects to the listed bat species or their habitat is not anticipated.
little brown bat (<i>Myotis lucifugus</i>)	Endangered	Not Listed				
eastern harvest mouse (<i>Reithrodontomys humulis</i>)	Threatened	Not Listed	This species relies on early successional habitats dominated by herbaceous vegetation with less than 30% woody material	Yes	ODNR recommends that early successional habitats be preserved where possible. If early successional habitats won't be impacted, this project is not likely to impact this species.	Potentially suitable habitat was found in portions of the ESA that are pasture and old field habitat.



TABLE 3-7: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESA	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Insects						
Monarch Butterfly (<i>Danaus plexippus</i>)	N/A	Proposed Threatened	This species is mainly found in prairies, meadows, grasslands and along roadsides, across most of North America.	Yes	If the habitat of this species will be impacted, construction should be avoided in this habitat during the species' migration and breeding March 15 to October 31. If this habitat will not be impacted, this project is not likely to adversely effect the monarch butterfly species.	Suitable habitat was identified within the ESA. If the habitat of this species is impacted, it is anticipated that a regionally appropriate native seed mix will be used as appropriate for post-construction restoration.
Reptiles						
Timber rattlesnake (<i>Crotalus horridus</i>)	Endangered	Not Listed	The timber rattlesnake is a woodland species. In addition to using wooded areas, the timber rattlesnake also utilizes sunlit gaps in the canopy for basking and deep rock crevices known as den sites for overwintering.	Yes	ODNR indicated that due to the location of the project, the project is not likely to impact this snake species.	Suitable habitat was identified within the ESA. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.
Amphibians						
Midland mud salamander (<i>Pseudotriton montanus diastictus</i>)	Threatened	Not Listed	This species is found in muddy floodplain woodlands, muddy springs, slow-moving creeks or streams, and other muddy habitats.	No	ODNR indicated that due to the location of the project, the project is not likely to impact this salamander species.	Suitable habitat was not identified within the ESA. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this salamander species.



TABLE 3-7: LISTED SPECIES COMMENTED ON BY ODNR AND USFWS

COMMON NAME (SCIENTIFIC NAME)	STATE STATUS	FEDERAL STATUS	HABITAT DESCRIPTION	POTENTIAL HABITAT OBSERVED IN ESA	AGENCY COMMENT	WSP IMPACT ASSESSMENT
Eastern spadefoot toad (<i>Scaphiopus holbrookii</i>)	Endangered	Not Listed	This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions.	No	ODNR indicated that due to the location of the project, the type of habitat within the project area, and the type of work proposed, the project is not likely to impact this toad species.	Suitable habitat was not identified within the ESA. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this toad species.
Mussels						
clubshell (<i>Pleurobema clava</i>), Northern riffleshell (<i>Epioblasma torulosa rangiana</i>), rayed bean (<i>Villosa fabalis</i>)	Not listed	Endangered	Perennial streams of sufficient size.	No	Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, the project is not likely to impact these mussel species.	The project will not impact listed mussel species.
Ohio pigtoe (<i>Pleurobema cordatum</i>), washboard (<i>Megalonaias nervosa</i>), yellow sandshell (<i>Lampsilis teres</i>)	Endangered	Not listed				

Fish						
bigeye shiner (<i>Notropis boops</i>), goldeye (<i>Hiodon alosoides</i>), popeye shiner (<i>Notropis ariommus</i>), shoal chub (<i>Macrhybopsis hyostoma</i>), shortnose gar (<i>Lepisosteus platostomus</i>), shovelnose sturgeon (<i>Scaphirhynchus platyrhynchus</i>)	Endangered	Not listed	Perennial streams.	No	The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.	The project will not impact listed fish species.
blue sucker (<i>Cycleptus elongatus</i>), channel darter (<i>Percina copelandi</i>), paddlefish (<i>Polyodon spathula</i>) river darter (<i>Percina shumardi</i>)	Threatened	Not listed				



4 Summary

WSP conducted environmental surveys of the approximately 407.2-acre ESA on April 14–15, 2026. Land uses within the ESA are generally composed of hardwood woodlands, agricultural land uses, developed land uses, and previously developed areas in varying stages of reversion to native habitat types. The environmental surveys resulted in the delineation of 10 wetlands, 22 streams, and 3 open water features within the ESA.

The WSP ecologists identified 10 wetlands totaling 2.77 acres within the ESA. The ten delineated wetlands include nine PEM wetlands totaling 2.66 acres and one PFO wetland totaling 0.11 acres. Seven (7) wetlands were identified as Category 1, and three (3) wetlands were identified as Category 2. Wetlands W-BS-1-1, W-BS-5-4, and W-BS-5-5 are directly abutting RPWs that appear to drain to tributaries of the Scioto River, a TNW. Therefore, these delineated wetlands are likely to be considered jurisdictional by the USACE.

The WSP ecologists identified 22 streams totaling 19,561 linear feet (lf) within the ESA. This included 16 ephemeral streams totaling 10,061 lf, and 6 intermittent streams totaling 9,500 lf. No perennial streams were identified within the ESA. Intermittent streams S-BS-1-1, S-BS-1-4a, S-BS-5-2, S-BS-5-7b, S-BS-5-9, and S-BS-5-11 were identified as RPWs with a continuous surface water connection to the Scioto River, a TNW. Therefore, the identified streams will likely be considered jurisdictional.

Ecologists also identified three open water features totaling 1.36 acres within the ESA. All three open water features were identified as man-made ponds excavated in upland soils and not constructed from the impoundment of an historical stream or wetland and therefore, will likely be considered non-jurisdictional by the USACE.

ODNR and USFWS have indicated that the ESA is within the range of multiple state and federally protected bat species. USFWS further indicated that records of Northern long-eared bat have been identified in the vicinity of the ESA. Both agencies recommended a seasonal clearing window from October 1 through March 31. ODNR indicated that summer presence/absence surveys may not constitute presence/absence. Based on guidance from the 2025 *Ohio Division of Wildlife and U.S. Fish and Wildlife Service (OH-Field Office) Joint Guidance for Bat Surveys*, an AEP contractor conducted mist net surveys July 3rd – July 6th, 2026. The survey captured, tagged, and tracked one tri-colored bat to its roost location west of the Project area. Final agency coordination is underway with ODNR and USFWS.

No potential hibernacula were identified within 0.25-miles of the ESA and no potential hibernacula were identified within the ESA during the field survey. Potentially suitable summer roost habitat may be provided by approximately 157.3 acres of forested areas. However, impacts to state and federally protected bat species are not anticipated as a result of the Project.

USFWS noted that the ESA is within the range of the monarch butterfly (*Danaus plexippus plexippus*). USFWS has recommended revegetation of disturbed areas with native plant species and limitations on mowing in monarch habitat from March 15 to October 31. It is anticipated that a regionally appropriate native seed mix will be used as appropriate for post-construction restoration.

ODNR indicated that the ESA is within the range of federally protected freshwater mussel species and state protected fish species. ODNR has recommended that no in-water work occur in perennial streams between March 15 and June 30. No potentially suitable habitat was identified within the ESA. Therefore, impacts to mussel and fish species are not anticipated.



ODNR indicated that the ESA is within the range of eastern spadefoot toad, timber rattlesnake, midland mud salamander, and eastern harvest mouse. However, ODNR also indicated that due to the type and location of the Project, adverse effects to listed species are not anticipated.

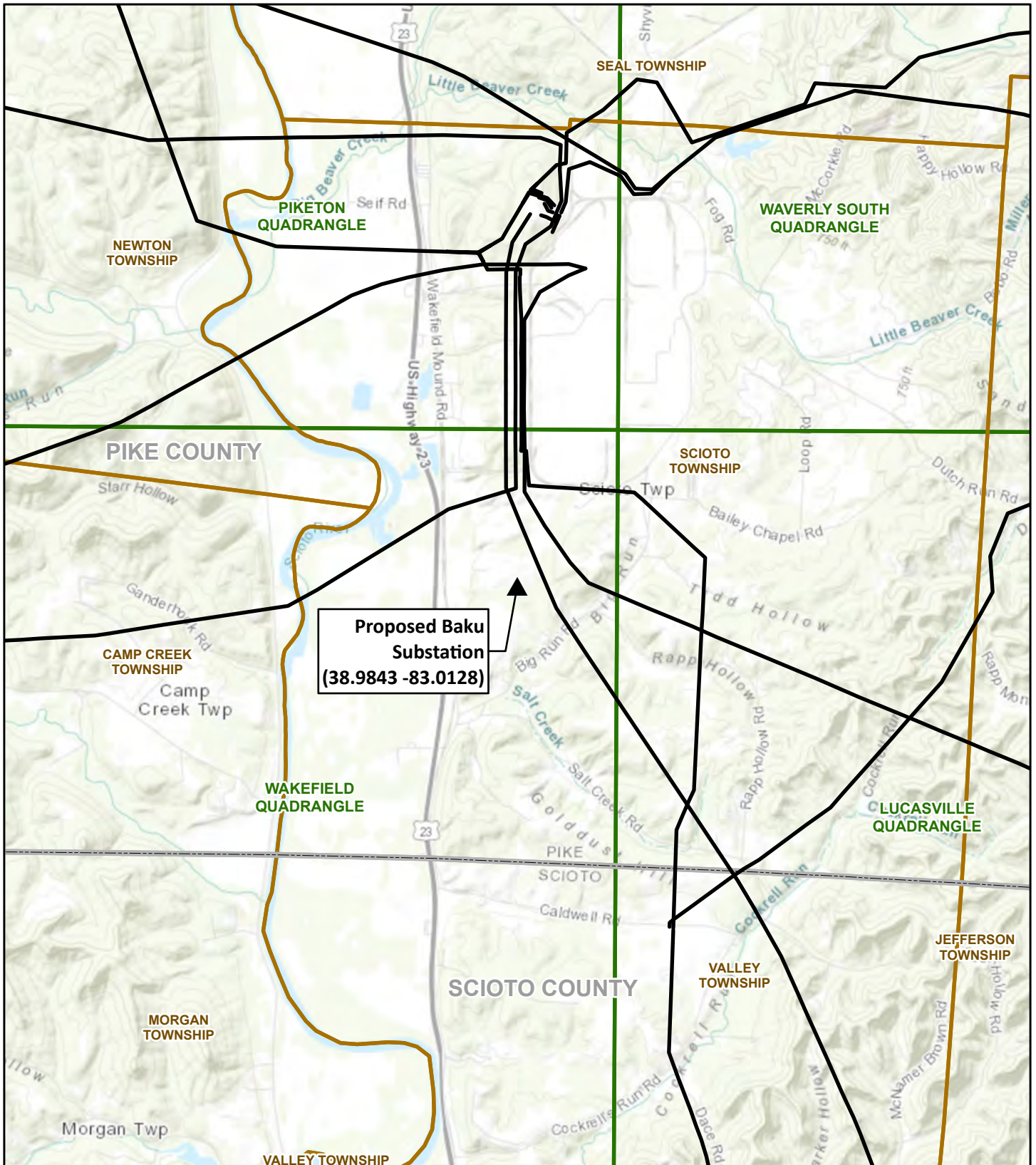


5 References

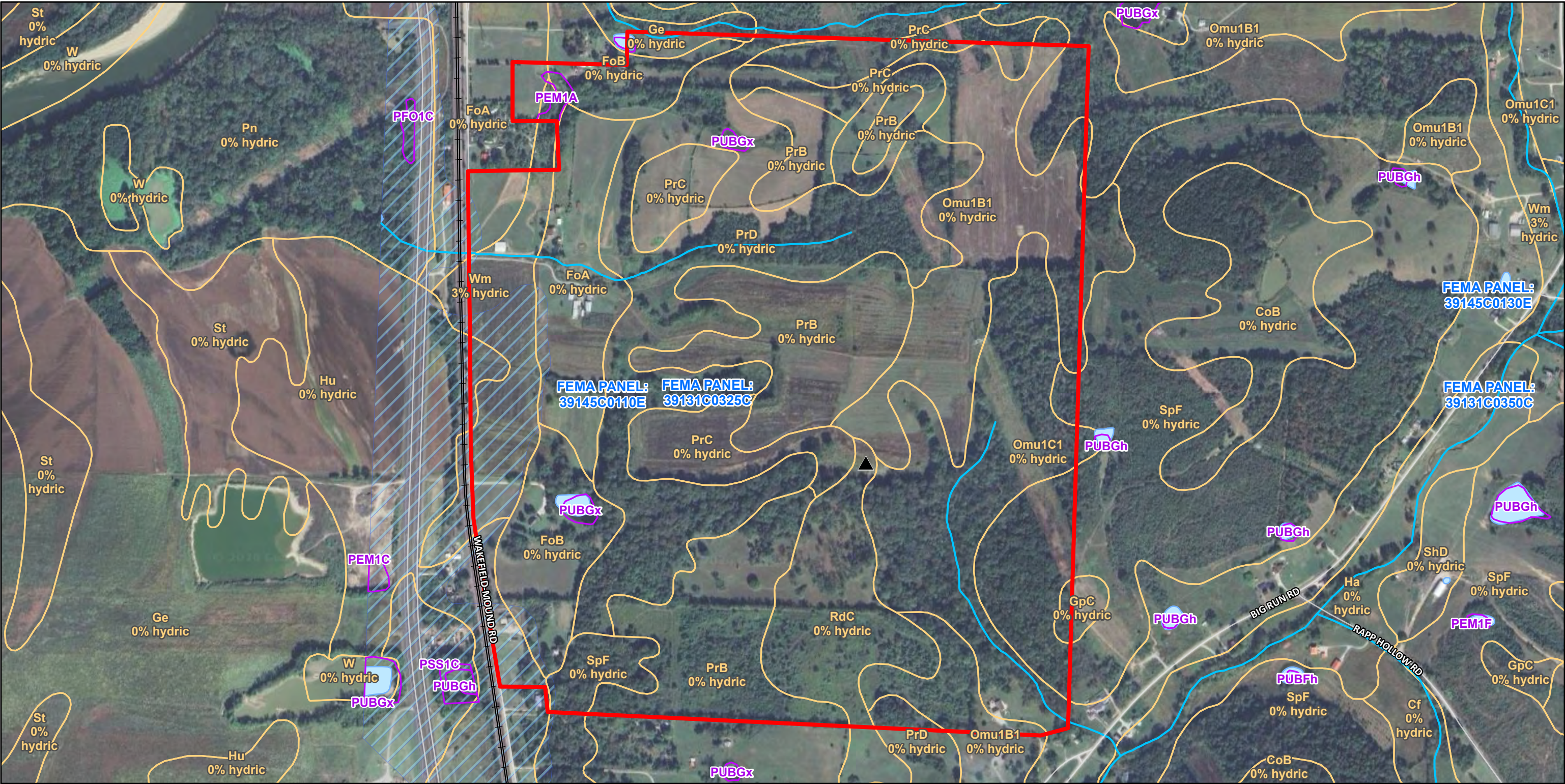
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APPENDIX

A FIGURES

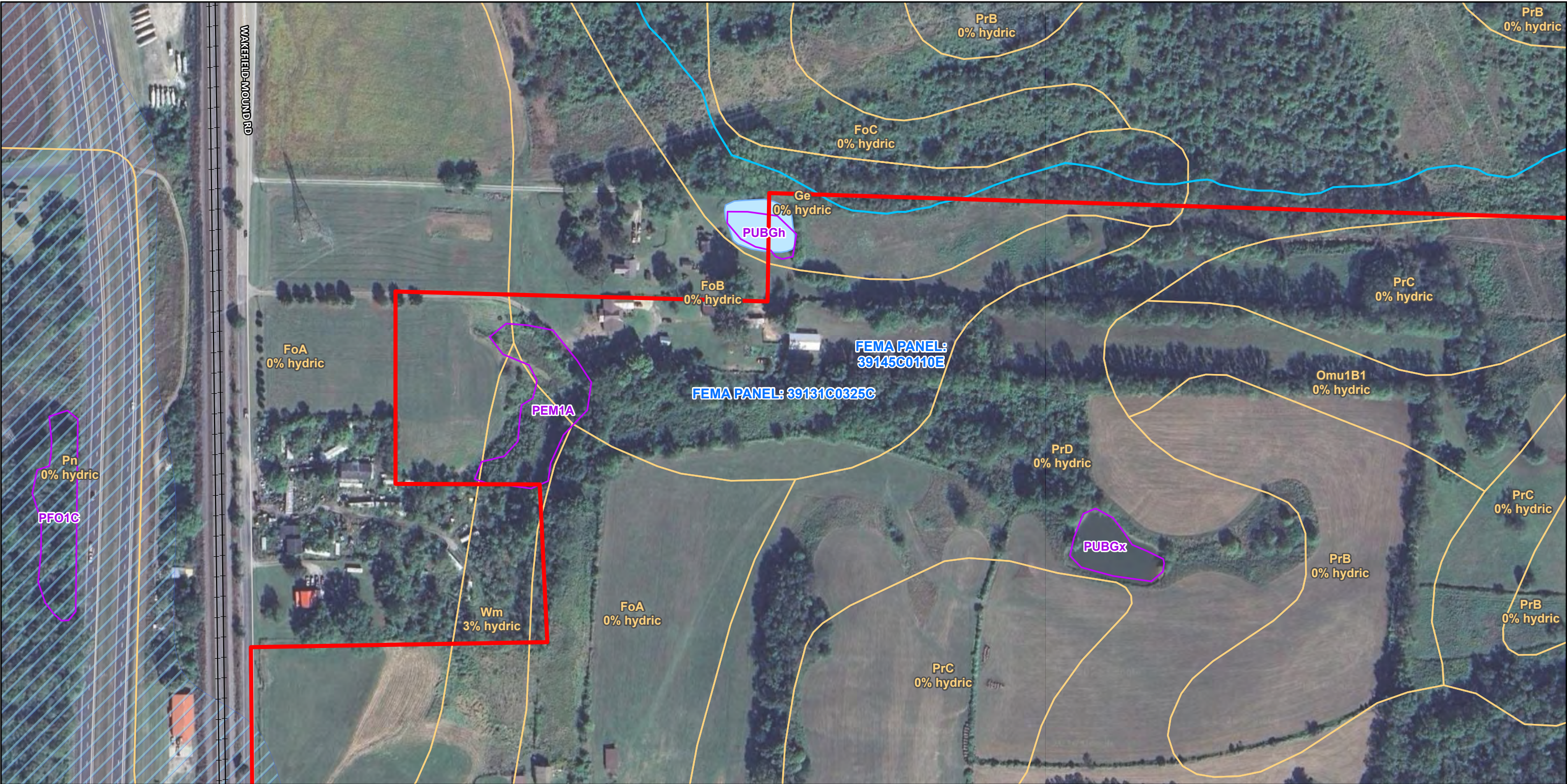


▲ Proposed AEP Station — Existing AEP Transmission Line	▭ Township Boundary ▭ USGS 24k Topo Quad Boundary ▭ County Boundary	Sources: Topo (USGS) Quad Boundaries (USGS)		BAKU STATION PROJECT Figure 1. Project Location Map	
Coordinate System: State Plane Ohio South NAD 1983					AEP OHIO TRANSMISSION COMPANY wsp BOUNDARY AVERAGE
July 31, 2026					

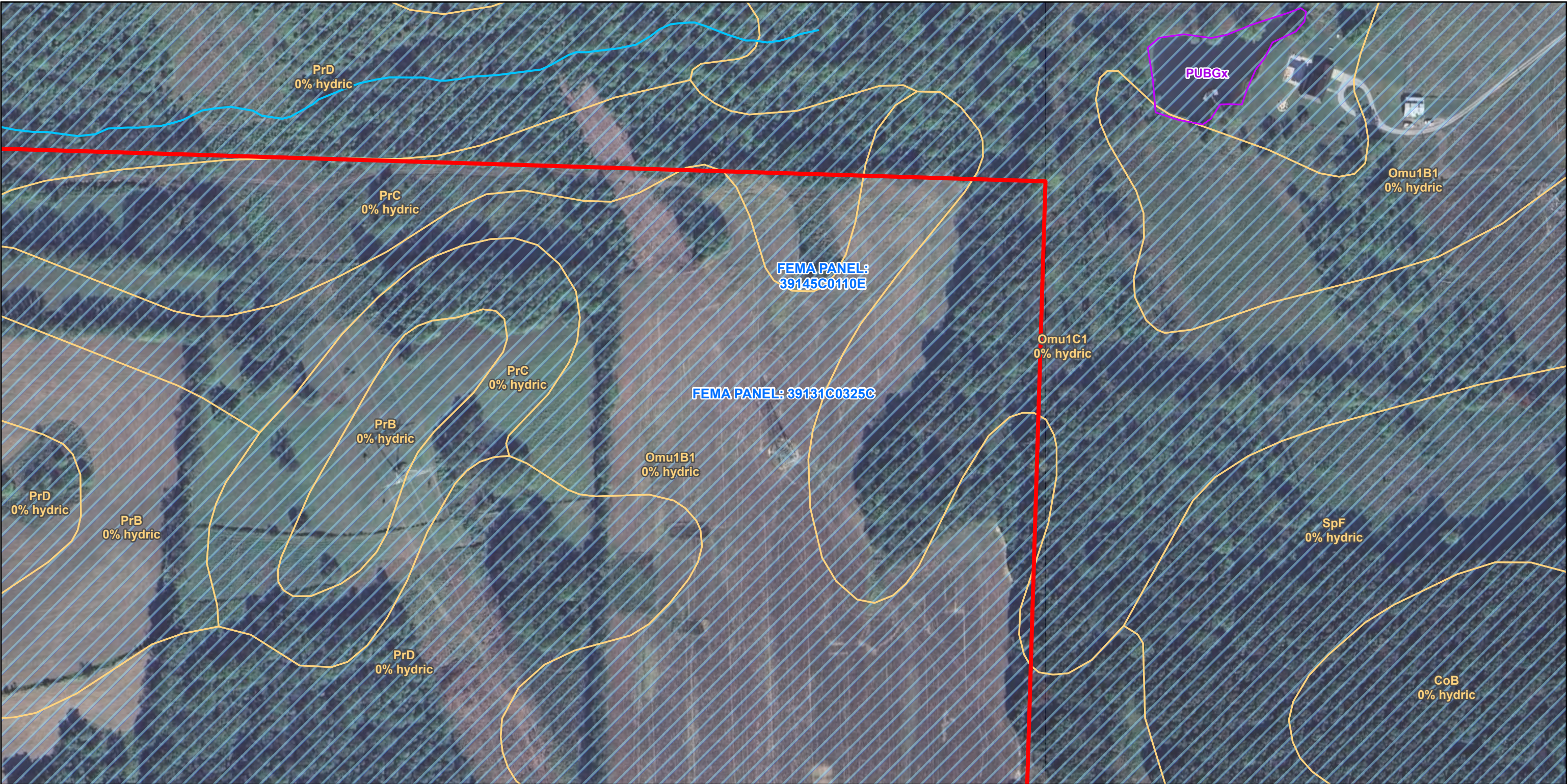


▲ Proposed AEP Station Environmental Survey Area — Railroad	— NHD Stream NWI Wetland NHD Waterbody Soil Map Unit FEMA 100-Yr Floodplain	Sources: Floodplains (FEMA 2020) Hydrography (USGS 2022) Imagery (Google Earth) Soil Units (USDA 2019) Wetlands (USFWS 2022) Coordinate System: State Plane Ohio South NAD 1983 August 7, 2026	PIKE COUNTY	BAKU STATION PROJECT Figure 2. Environmental Basemap    0 1,300 Feet
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Note: No FEMA designated Floodway in the current map extent.



Environmental Survey Area Railroad NHD Stream NWI Wetland NHD Waterbody Soil Map Unit FEMA 100-Yr Floodplain Note: No FEMA designated Floodway in the current map extent.	Sources: Floodplains (FEMA 2020) Hydrography (USGS 2022) Imagery (Google Earth) Soil Units (USDA 2019) Wetlands (USFWS 2022)	PIKE COUNTY Wakefield M... Pike Run Rd	BAKU STATION PROJECT Figure 2. Environmental Basemap
	Coordinate System: State Plane Ohio South NAD 1983		N 0 400 Feet
	August 7, 2026		



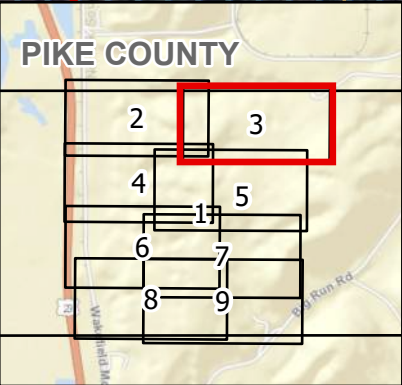
- Environmental Survey Area
- NHD Stream
- NWI Wetland
- Soil Map Unit

Note: No FEMA designated Floodplain or Floodway in the current map extent.

Sources:
Floodplains (FEMA 2020)
Hydrography (USGS 2022)
Imagery (Google Earth)
Soil Units (USDA 2019)
Wetlands (USFWS 2022)

Coordinate System:
State Plane Ohio South
NAD 1983

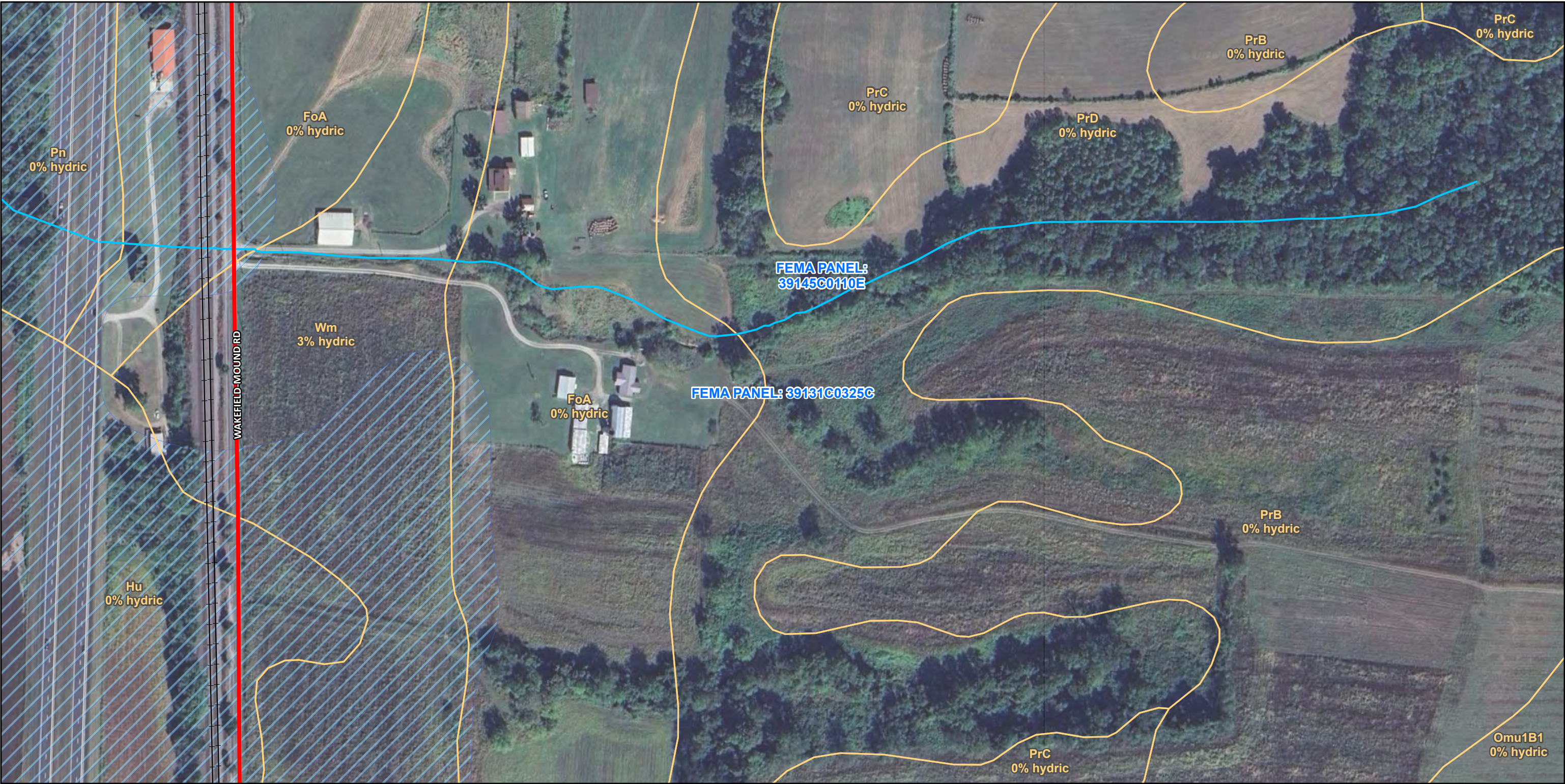
August 7, 2026



BAKU STATION PROJECT

Figure 2. Environmental Basemap

0 400 Feet



Environmental Survey Area Railroad NHD Stream Soil Map Unit FEMA 100-Yr Floodplain	Sources: Floodplains (FEMA 2020) Hydrography (USGS 2022) Imagery (Google Earth) Soil Units (USDA 2019) Wetlands (USFWS 2022)	PIKE COUNTY Wakefield Mound Rd	BAKU STATION PROJECT Figure 2. Environmental Basemap	
	Coordinate System: State Plane Ohio South NAD 1983		AEP OHIO TRANSMISSION COMPANY WSP	
	August 7, 2026		N 0 400 Feet	
	Note: No FEMA designated Floodway in the current map extent.			

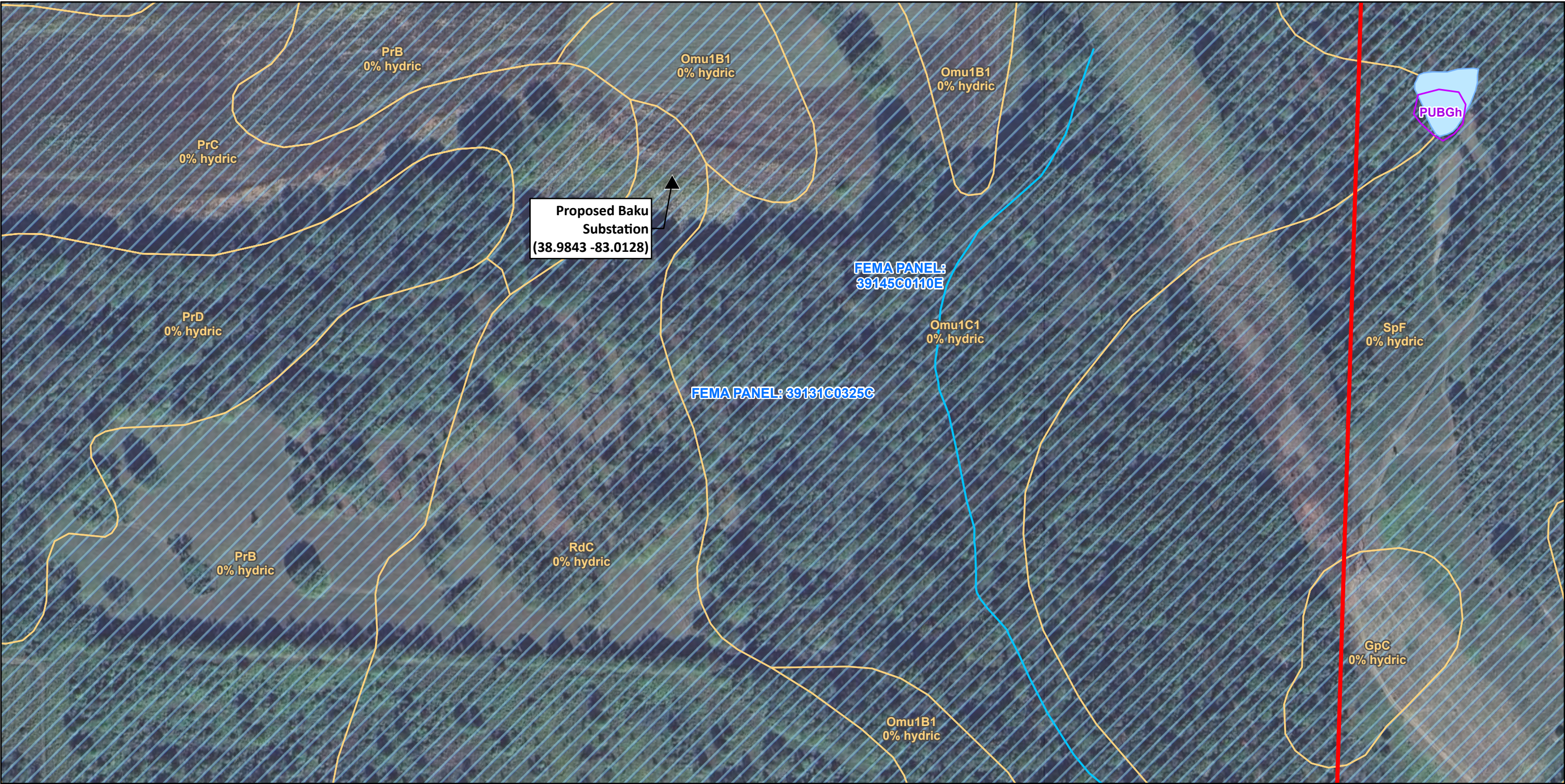


Environmental Survey Area NHD Stream NWI Wetland NHD Waterbody Soil Map Unit Note: No FEMA designated Floodplain or Floodway in the current map extent.	Sources: Floodplains (FEMA 2020) Hydrography (USGS 2022) Imagery (Google Earth) Soil Units (USDA 2019) Wetlands (USFWS 2022)	PIKE COUNTY	BAKU STATION PROJECT Figure 2. Environmental Basemap	
	Coordinate System: State Plane Ohio South NAD 1983		 	
	August 7, 2026		N 0400 Feet	



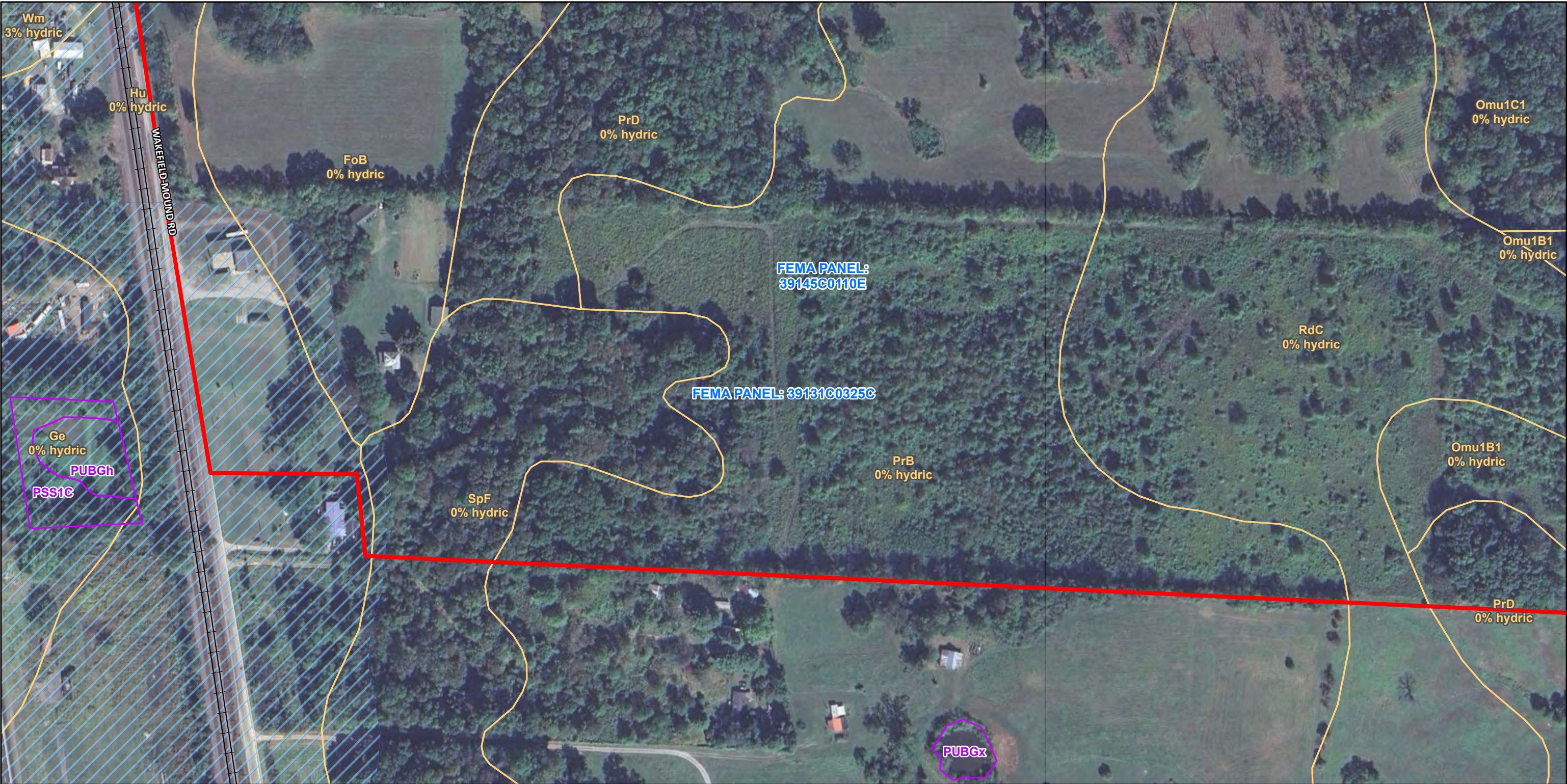
▲ Proposed AEP Station Environmental Survey Area — Railroad	NWI Wetland NHD Waterbody Soil Map Unit FEMA 100-Yr Floodplain	Sources: Floodplains (FEMA 2020) Hydrography (USGS 2022) Imagery (Google Earth) Soil Units (USDA 2019) Wetlands (USFWS 2022)	PIKE COUNTY	BAKU STATION PROJECT Figure 2. Environmental Basemap	
		Coordinate System: State Plane Ohio South NAD 1983			
		August 7, 2026		0 400 Feet	

Note: No FEMA designated Floodway in the current map extent.



▲ Proposed AEP Station Environmental Survey Area NHD Stream NWI Wetland NHD Waterbody Soil Map Unit	Sources: Floodplains (FEMA 2020) Hydrography (USGS 2022) Imagery (Google Earth) Soil Units (USDA 2019) Wetlands (USFWS 2022)	PIKE COUNTY	BAKU STATION PROJECT Figure 2. Environmental Basemap	
	Coordinate System: State Plane Ohio South NAD 1983		 	
	August 7, 2026		N 0 400 Feet	

Note: No FEMA designated Floodplain or Floodway in the current map extent.

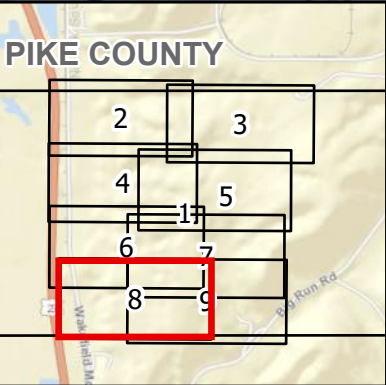


- Environmental Survey Area
- NWI Wetland
- Railroad
- Soil Map Unit
- FEMA 100-Yr Floodplain

Sources:
Floodplains (FEMA 2020)
Hydrography (USGS 2022)
Imagery (Google Earth)
Soil Units (USDA 2019)
Wetlands (USFWS 2022)

Coordinate System:
State Plane Ohio South
NAD 1983

August 7, 2026



BAKU STATION PROJECT

Figure 2. Environmental Basemap

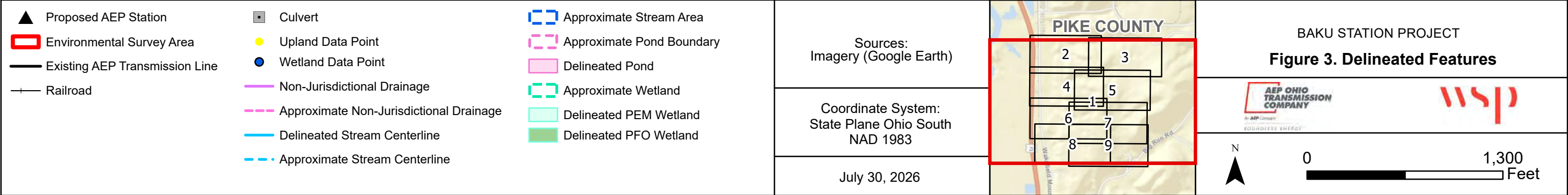


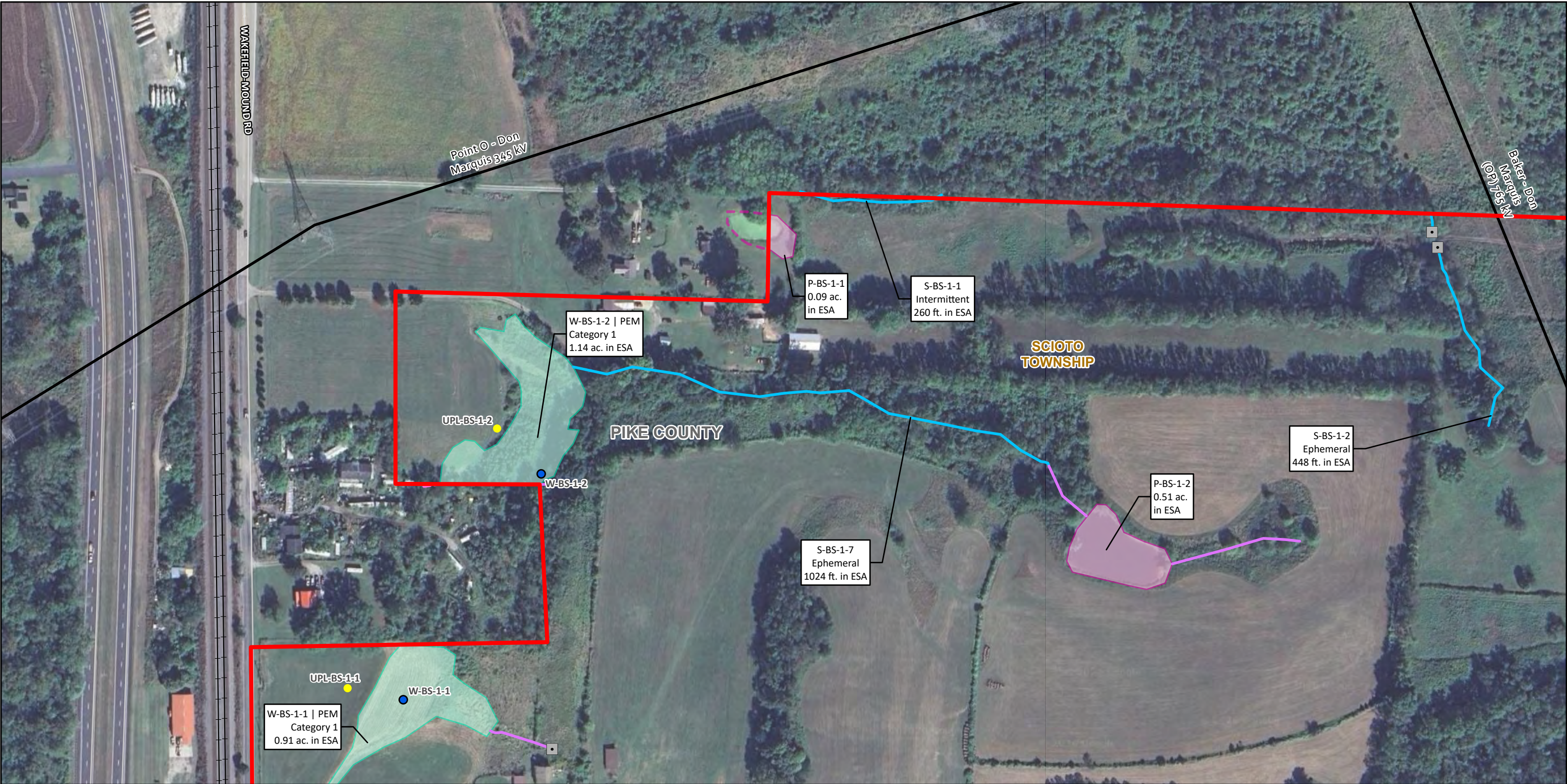
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Note: No FEMA designated Floodway in the current map extent.

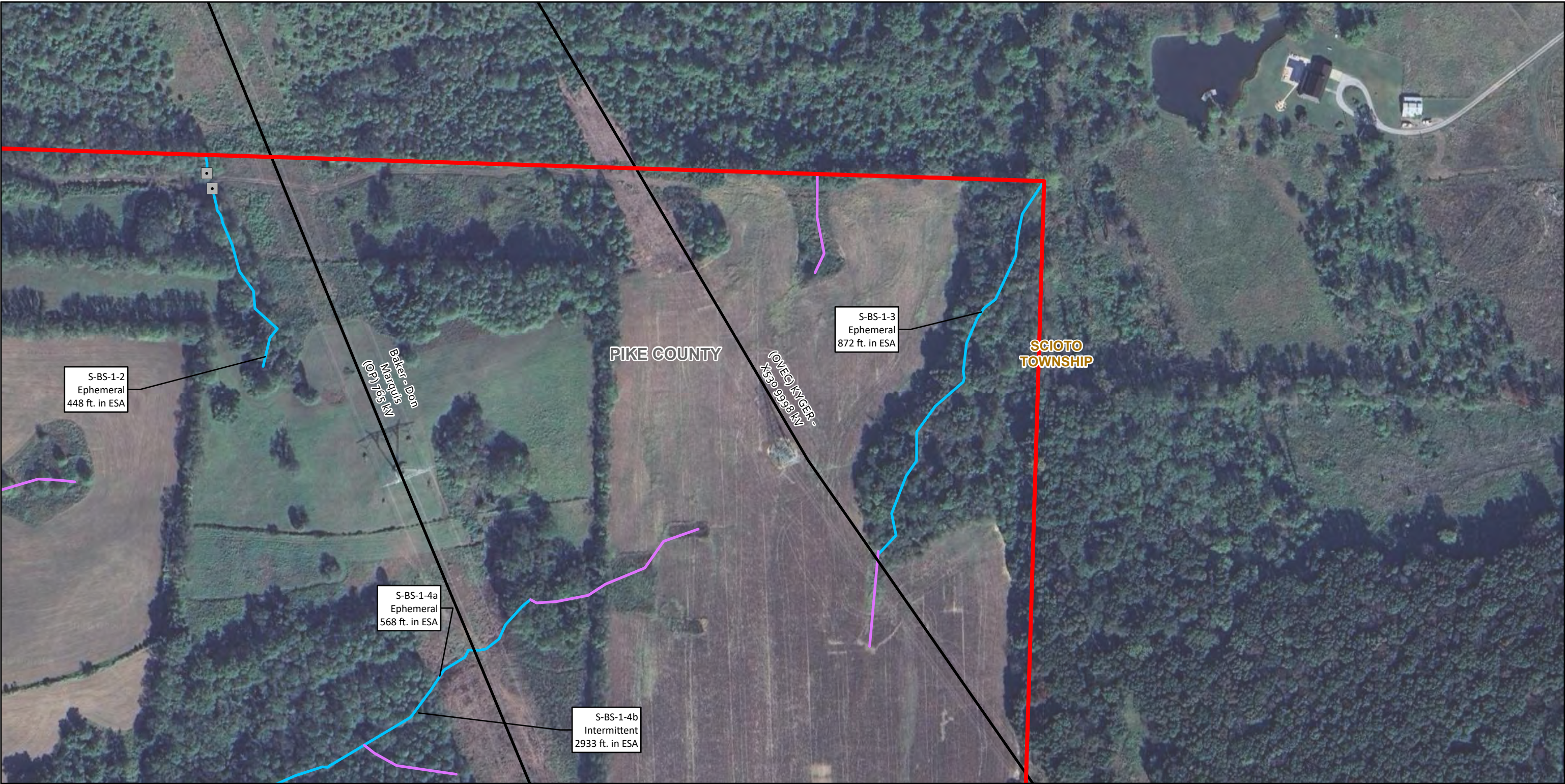


Environmental Survey Area NWD Stream NWI Wetland Soil Map Unit Note: No FEMA designated Floodplain or Floodway in the current map extent.	Sources: Floodplains (FEMA 2020) Hydrography (USGS 2022) Imagery (Google Earth) Soil Units (USDA 2019) Wetlands (USFWS 2022)	PIKE COUNTY Wetland M... g Run Rd	BAKU STATION PROJECT Figure 2. Environmental Basemap	
	Coordinate System: State Plane Ohio South NAD 1983			
	August 7, 2026		N 0400 Feet	





Environmental Survey Area Existing AEP Transmission Line Railroad	Culvert Upland Data Point Wetland Data Point Non-Jurisdictional Drainage Approximate Non-Jurisdictional Drainage Delineated Stream Centerline Approximate Stream Centerline	Approximate Pond Boundary Delineated Pond Delineated PEM Wetland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY 2 3 4 5 6 7 8 9	BAKU STATION PROJECT Figure 3. Delineated Features AEP OHIO TRANSMISSION COMPANY BOOTHILL SURVEY WSP N 0 400 Feet
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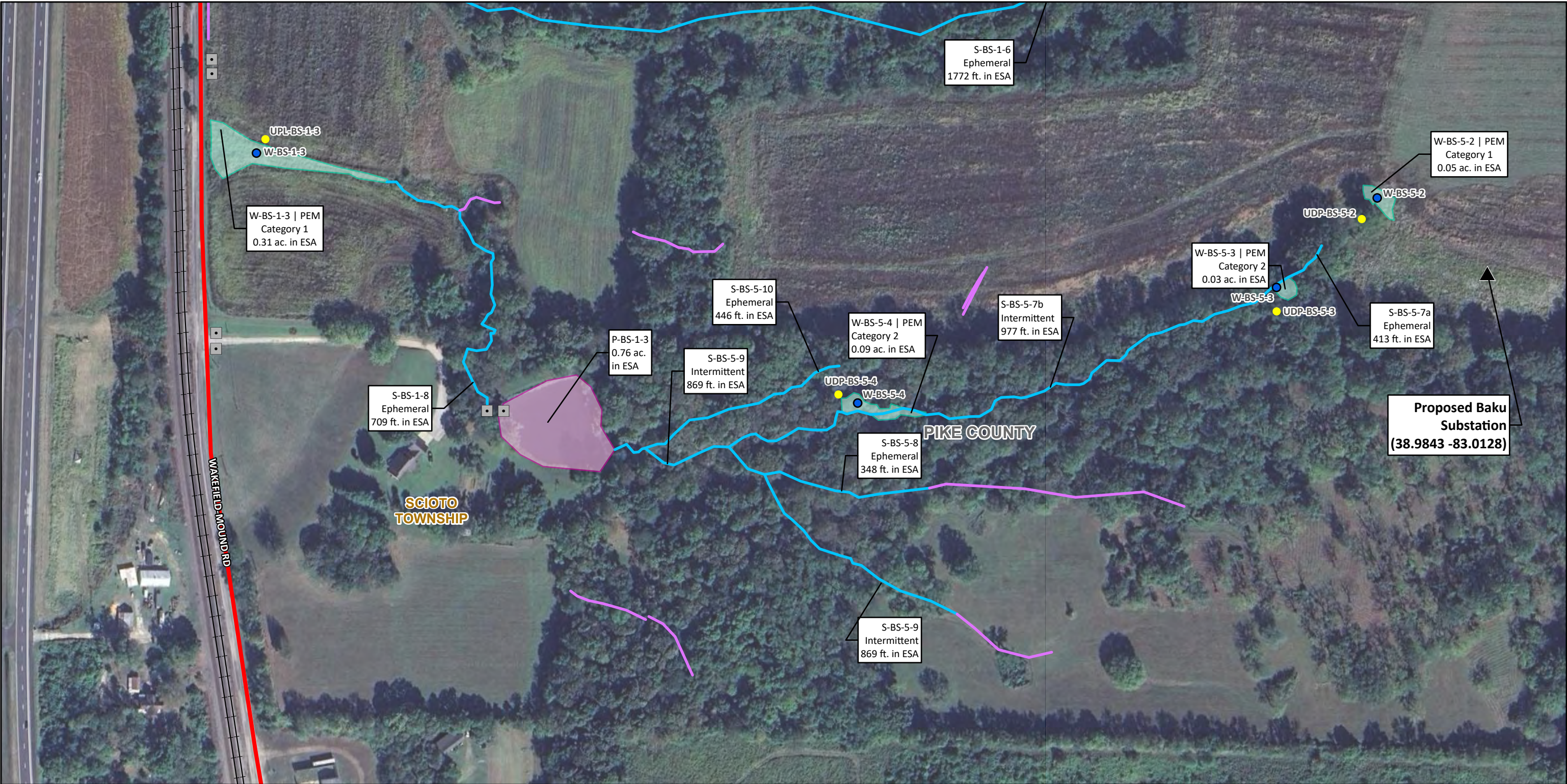
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	Coordinate System: State Plane Ohio South NAD 1983		 	
	July 30, 2026		N 0400 Feet	



Environmental Survey Area Railroad Culvert Upland Data Point Wetland Data Point Non-Jurisdictional Drainage Delineated Stream Centerline Delineated PEM Wetland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY 2 3 4 5 6 7 8 9	BAKU STATION PROJECT Figure 3. Delineated Features AEP OHIO TRANSMISSION COMPANY AEP Company BOUNDLESS ENERGY WSP N 0 400 Feet
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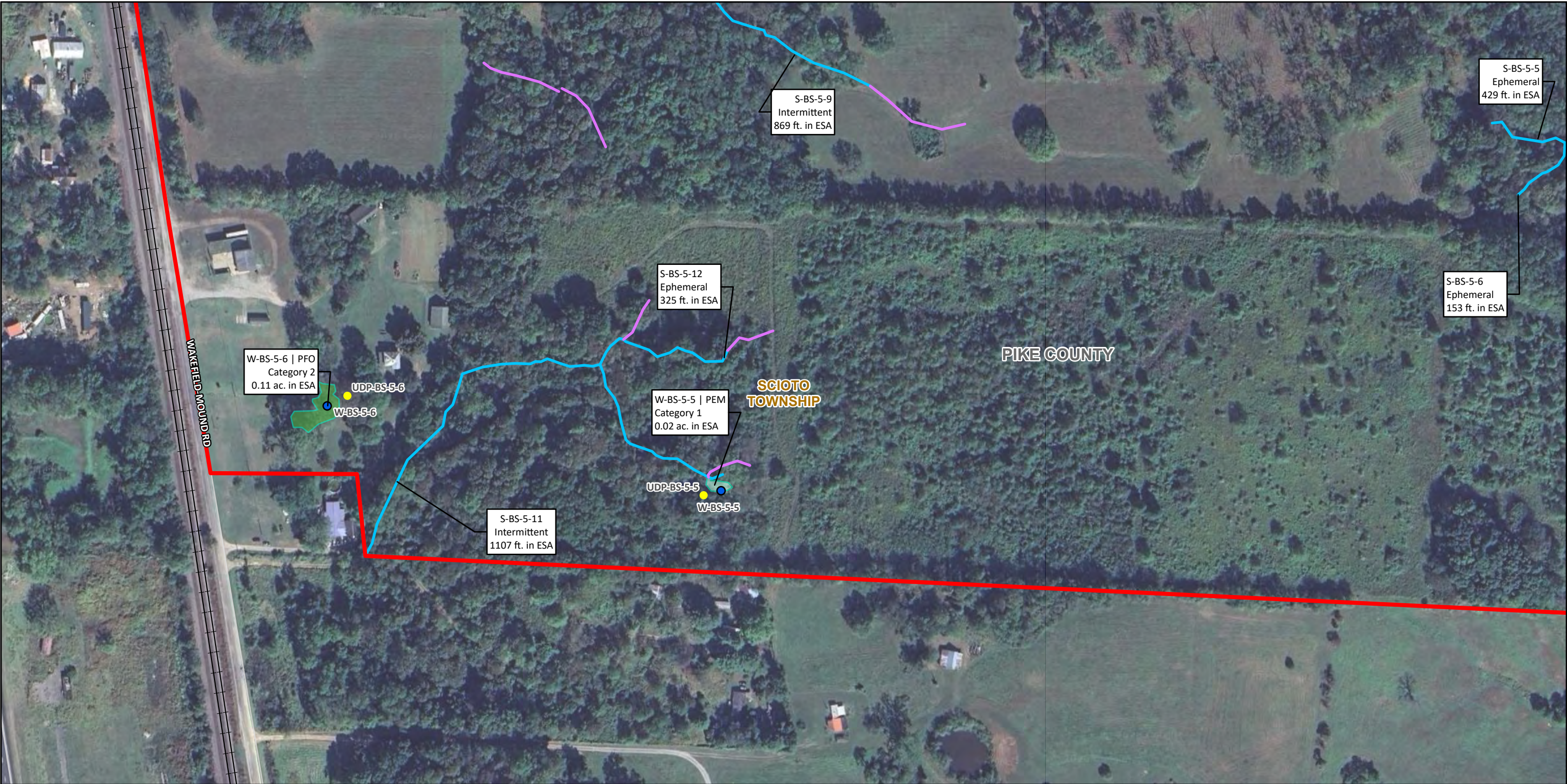
Environmental Survey Area Existing AEP Transmission Line	Wetland Data Point Non-Jurisdictional Drainage Delineated Stream Centerline	Delineated PEM Wetland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY 2 3 4 5 6 7 8 9	BAKU STATION PROJECT Figure 3. Delineated Features AEP OHIO TRANSMISSION COMPANY WSP N 0 400 Feet
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▲ Proposed AEP Station Environmental Survey Area — Railroad	■ Culvert ● Upland Data Point ● Wetland Data Point — Non-Jurisdictional Drainage — Delineated Stream Centerline	■ Delineated Pond ■ Delineated PEM Wetland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY	BAKU STATION PROJECT Figure 3. Delineated Features    0 400 Feet
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▲ Proposed AEP Station Environmental Survey Area Existing AEP Transmission Line ● Upland Data Point ● Wetland Data Point Non-Jurisdictional Drainage Delineated Stream Centerline Approximate Stream Centerline Delineated PEM Wetland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY	BAKU STATION PROJECT Figure 3. Delineated Features  N 0400 Feet
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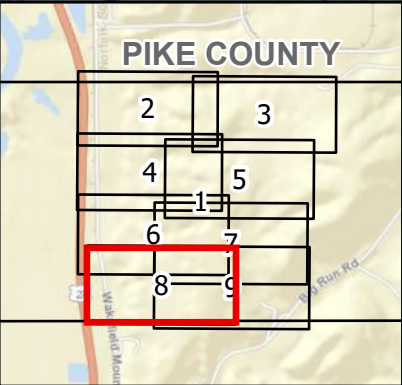


- | | | |
|---------------------------|------------------------------|------------------------|
| Environmental Survey Area | Upland Data Point | Delineated PEM Wetland |
| Railroad | Wetland Data Point | Delineated PFO Wetland |
| | Non-Jurisdictional Drainage | |
| | Delineated Stream Centerline | |

Sources:
Imagery (Google Earth)

Coordinate System:
State Plane Ohio South
NAD 1983

July 30, 2026



BAKU STATION PROJECT
Figure 3. Delineated Features

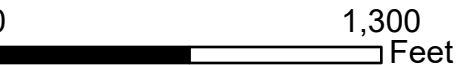


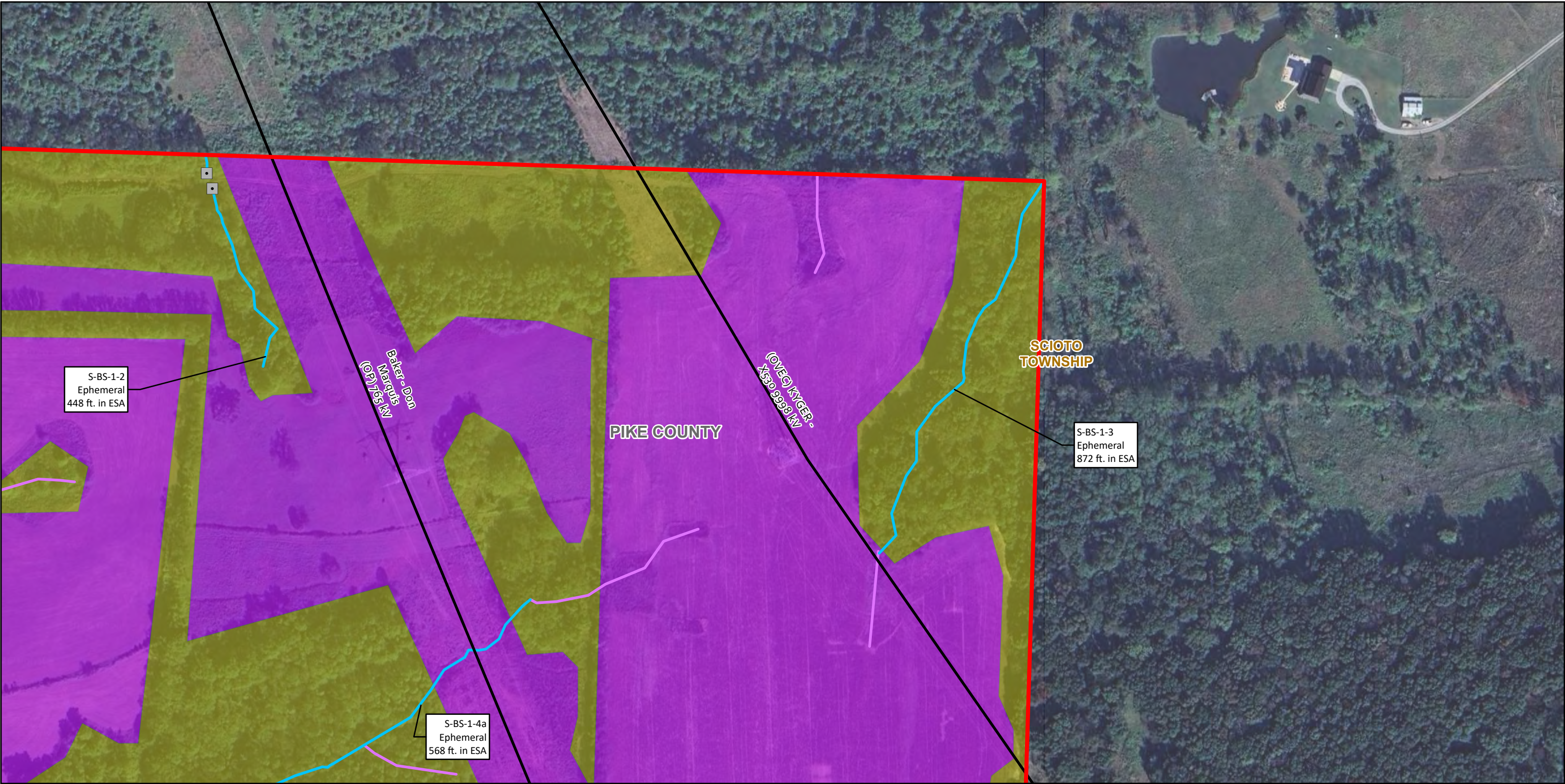
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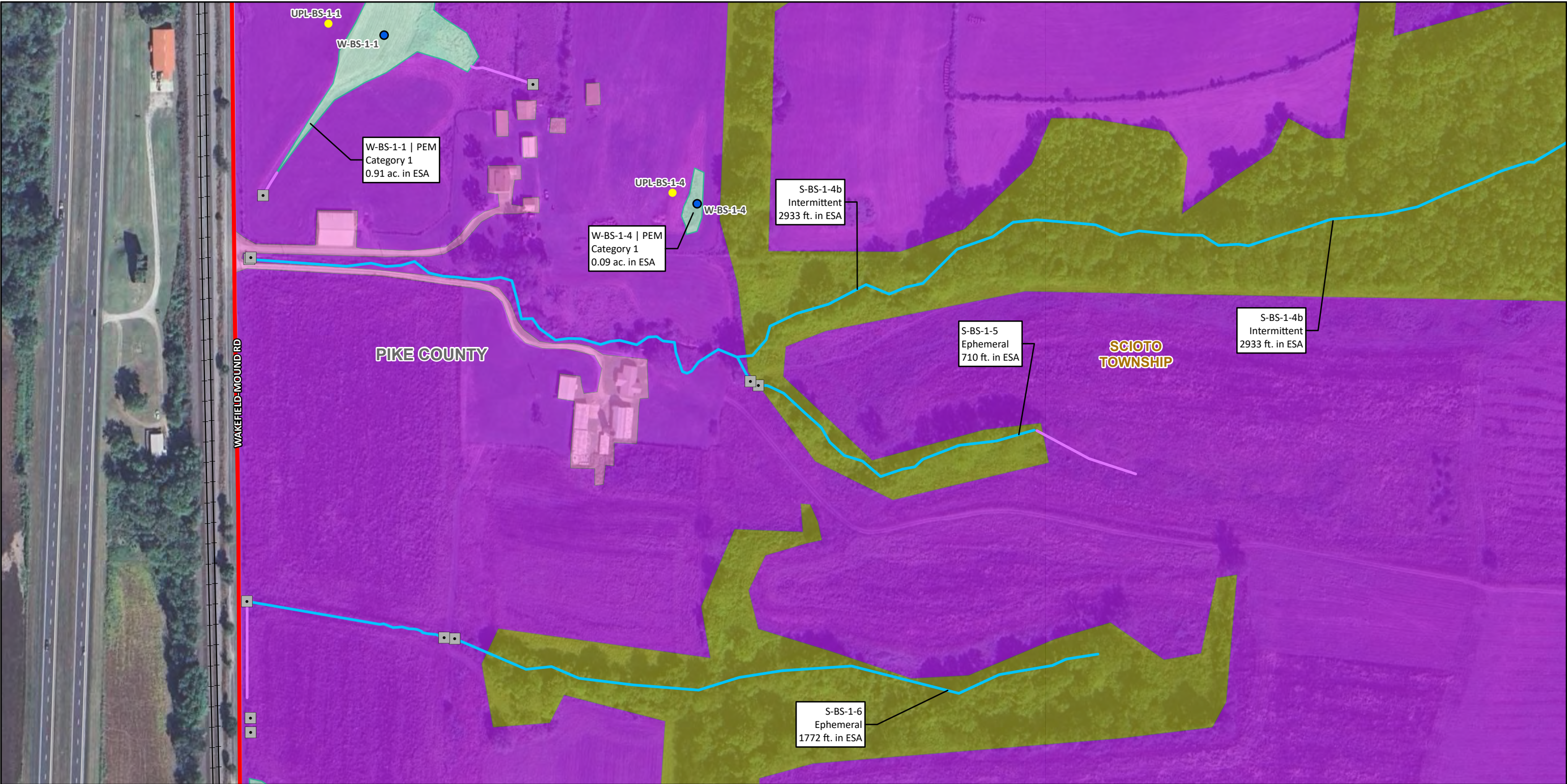
Environmental Survey Area Existing AEP Transmission Line Non-Jurisdictional Drainage Approximate Non-Jurisdictional Drainage Delineated Stream Centerline Approximate Stream Centerline	Sources: Imagery (Google Earth)		BAKU STATION PROJECT Figure 3. Delineated Features	
	Coordinate System: State Plane Ohio South NAD 1983		 	
	July 30, 2026		N 0400 Feet	



▲ Proposed AEP Station Environmental Survey Area Existing AEP Transmission Line Railroad	■ Culvert ● Upland Data Point ● Wetland Data Point Non-Jurisdictional Drainage Approximate Non-Jurisdictional Drainage Delineated Stream Centerline Approximate Stream Centerline	Approximate Stream Area Approximate Pond Boundary Delineated Pond Delineated PEM Wetland Delineated PFO Wetland Vegetation Coverage Developed, Open Space Old Field Pasture/Hayfield Scrub/Shrub Successional Hardwood Woodland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY Wakefield Mound Rd Big Run Rd	BAKU STATION PROJECT Figure 4. Vegetation Coverage    
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Environmental Survey Area Existing AEP Transmission Line	Culvert Non-Jurisdictional Drainage Delineated Stream Centerline	Vegetation Coverage Developed, Open Space Old Field Pasture/Hayfield Scrub/Shrub Successional Hardwood Woodland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY 2 3 4 5 6 7 8 9	BAKU STATION PROJECT Figure 4. Vegetation Coverage AEP OHIO TRANSMISSION COMPANY N 0 400 Feet
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Environmental Survey Area Railroad	Culvert Upland Data Point Wetland Data Point Non-Jurisdictional Drainage Delineated Stream Centerline	Delineated PEM Wetland Vegetation Coverage Developed, Open Space Old Field Pasture/Hayfield Scrub/Shrub Successional Hardwood Woodland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY Map showing a grid of numbered areas (1-9) with a red box highlighting area 4.	BAKU STATION PROJECT Figure 4. Vegetation Coverage AEP OHIO TRANSMISSION COMPANY WSP N 0 400 Feet
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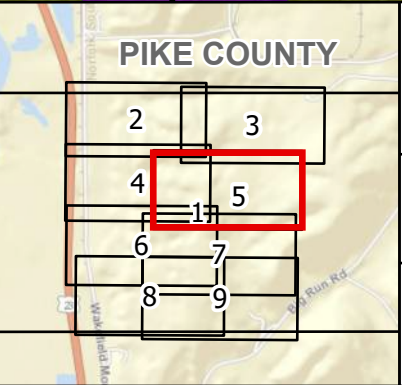


- | | | |
|--|---|---|
|  Environmental Survey Area |  Wetland Data Point |  Delineated PEM Wetland |
|  Existing AEP Transmission Line |  Non-Jurisdictional Drainage |  Vegetation Coverage |
|  Delineated Stream Centerline |  Developed, Open Space |  Old Field |
| |  Pasture/Hayfield |  Scrub/Shrub |
| |  Successional Hardwood Woodland | |

Sources:
Imagery (Google Earth)

Coordinate System:
State Plane Ohio South
NAD 1983

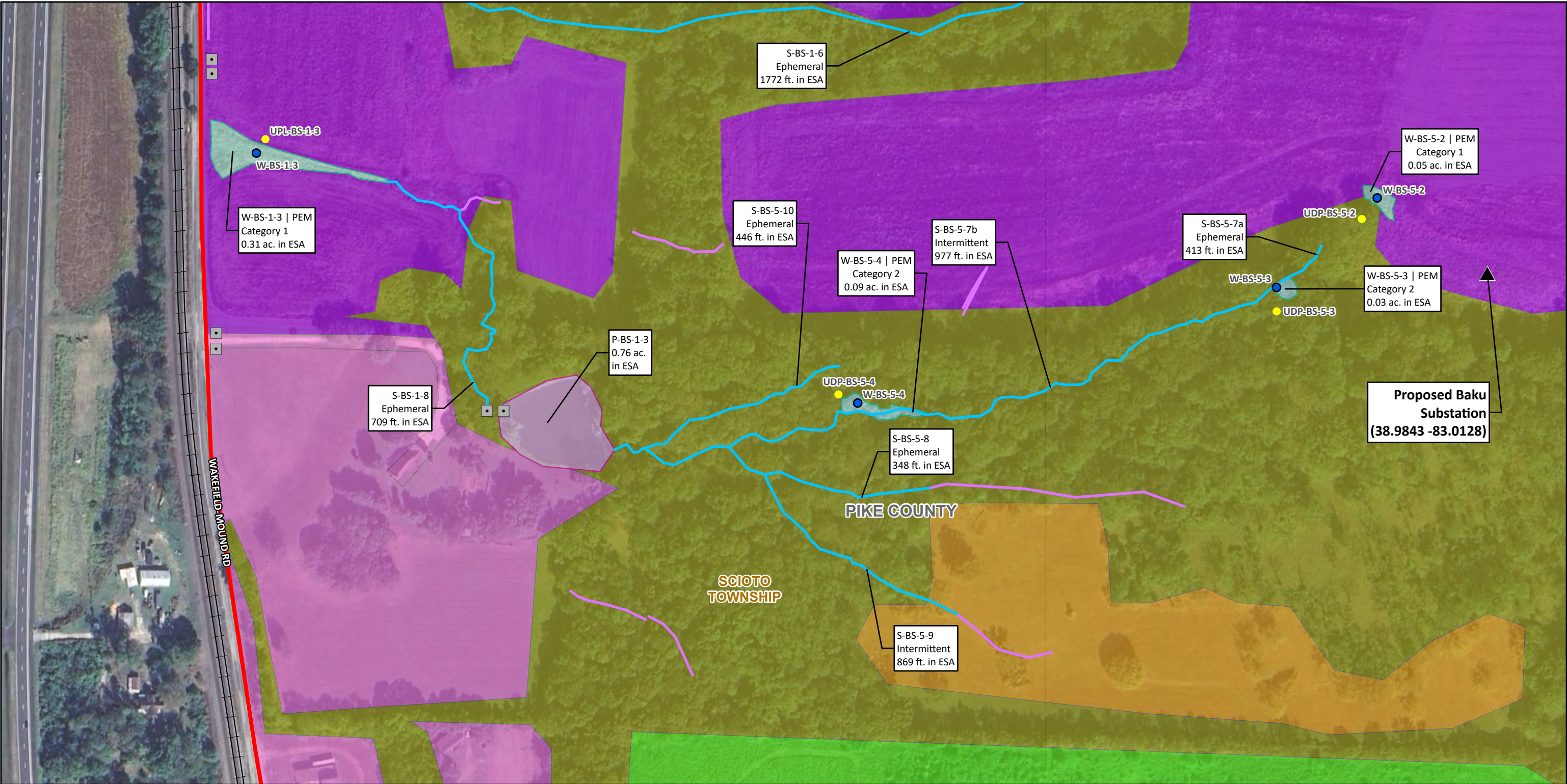
July 30, 2026

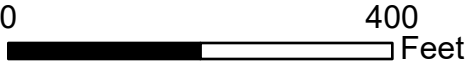


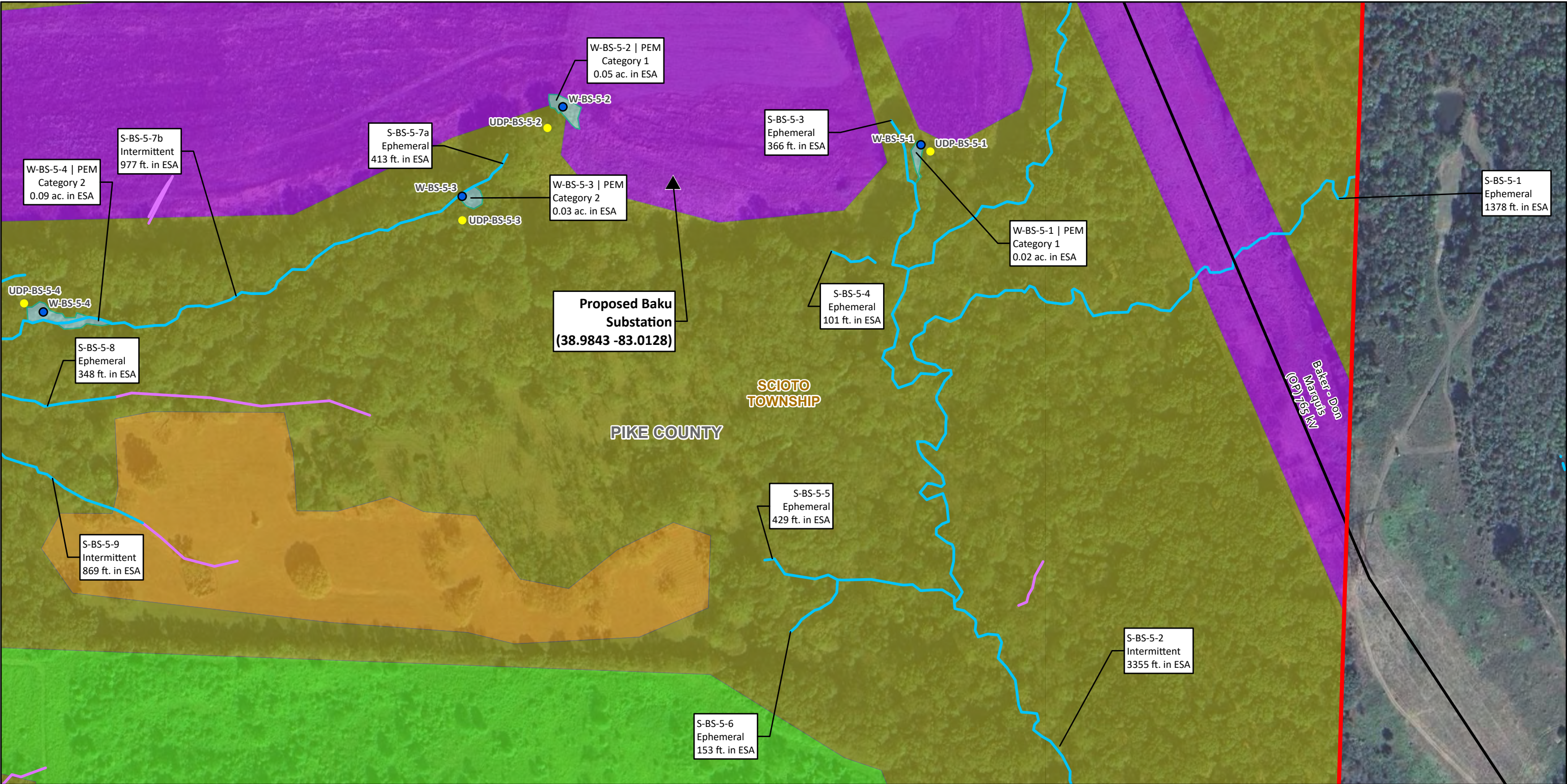
BAKU STATION PROJECT
Figure 4. Vegetation Coverage



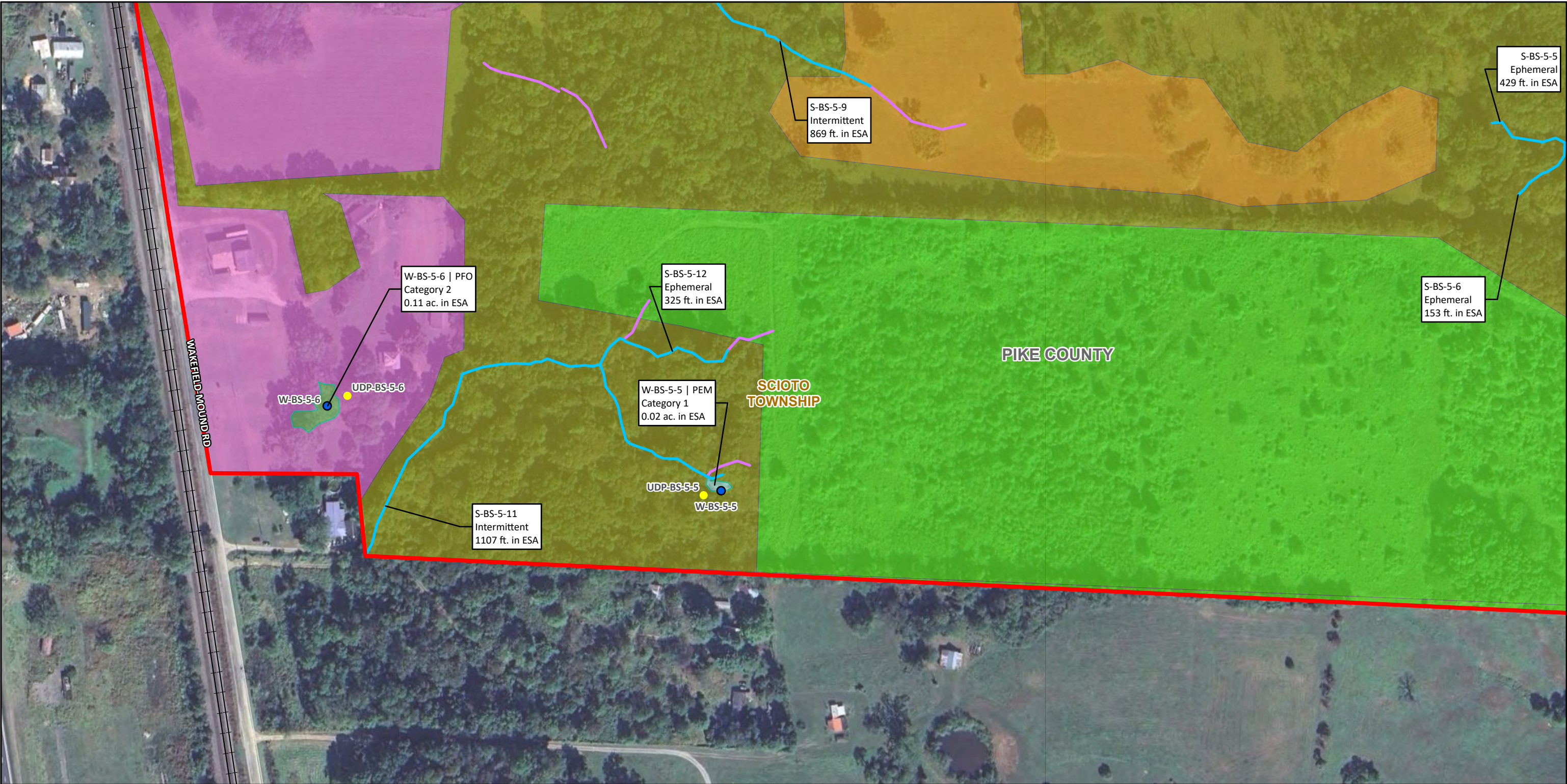
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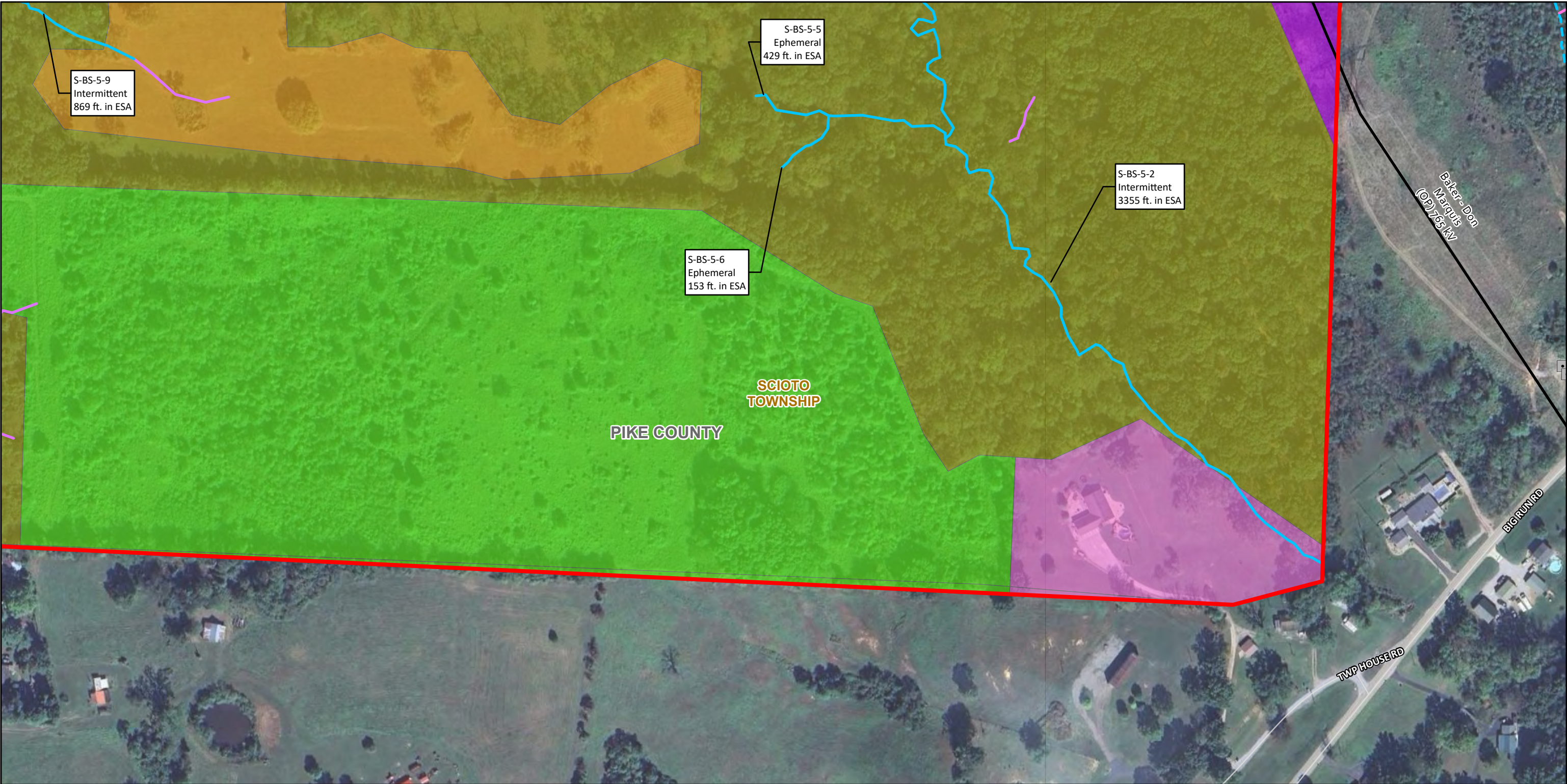
▲ Proposed AEP Station Environmental Survey Area — Railroad	■ Culvert ● Upland Data Point ● Wetland Data Point — Non-Jurisdictional Drainage — Delineated Stream Centerline	■ Delineated Pond ■ Delineated PEM Wetland Vegetation Coverage ■ Developed, Open Space ■ Old Field ■ Pasture/Hayfield ■ Scrub/Shrub ■ Successional Hardwood Woodland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY	BAKU STATION PROJECT Figure 4. Vegetation Coverage    
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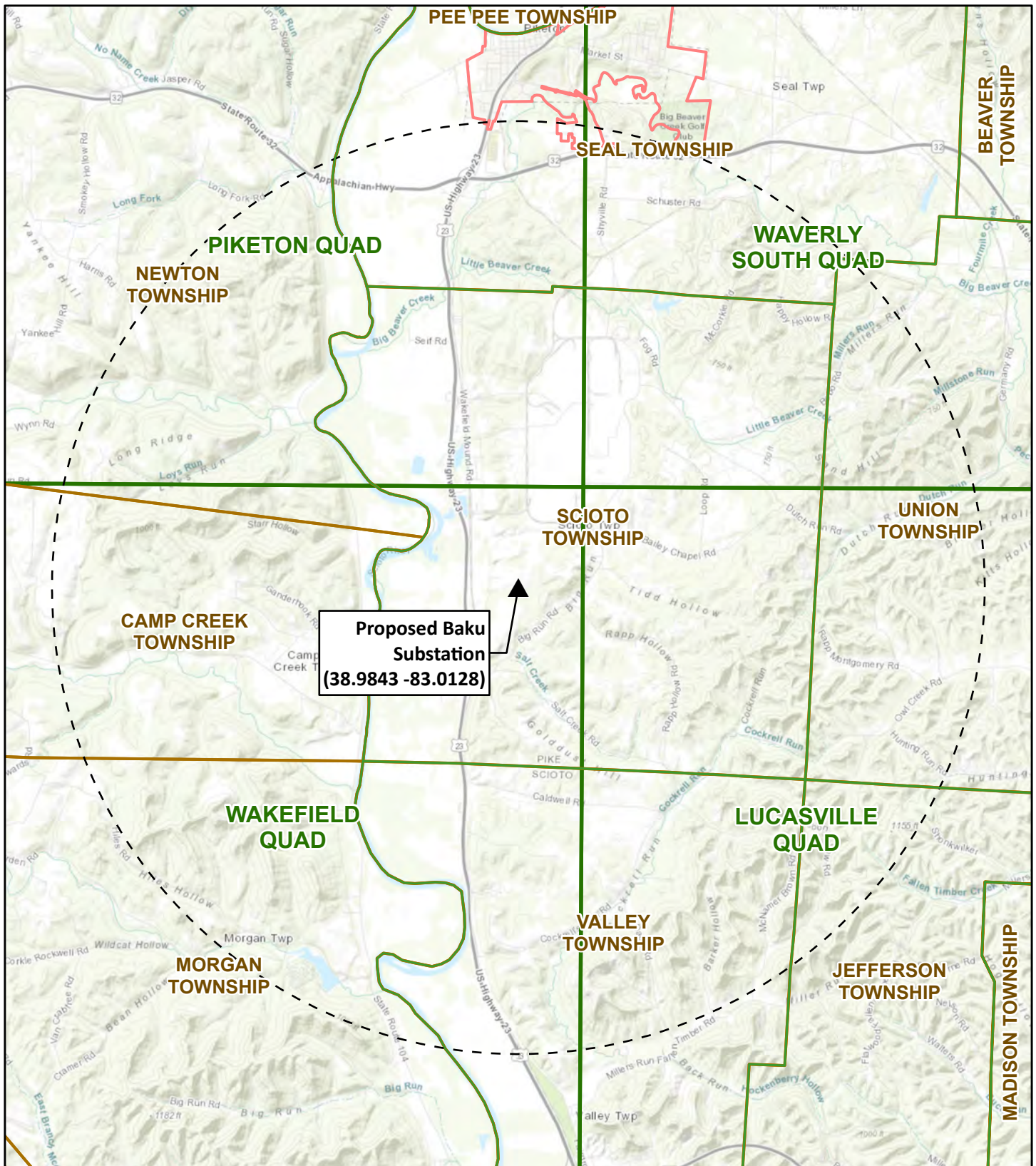
▲ Proposed AEP Station Environmental Survey Area Existing AEP Transmission Line	● Upland Data Point ● Wetland Data Point Non-Jurisdictional Drainage Delineated Stream Centerline Approximate Stream Centerline	Delineated PEM Wetland Vegetation Coverage - Developed, Open Space - Old Field - Pasture/Hayfield - Scrub/Shrub - Successional Hardwood Woodland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY	BAKU STATION PROJECT Figure 4. Vegetation Coverage N 0 400 Feet
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Environmental Survey Area Railroad	Upland Data Point Wetland Data Point Non-Jurisdictional Drainage Delineated Stream Centerline	Delineated PEM Wetland Delineated PFO Wetland Vegetation Coverage Developed, Open Space Old Field Pasture/Hayfield Scrub/Shrub Successional Hardwood Woodland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY 2 3 4 5 6 7 8 9	BAKU STATION PROJECT Figure 4. Vegetation Coverage AEP OHIO TRANSMISSION COMPANY BOOTHILLER SURVEY WSP N 0400 Feet
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Environmental Survey Area Existing AEP Transmission Line	Culvert Non-Jurisdictional Drainage Approximate Non-Jurisdictional Drainage Delineated Stream Centerline Approximate Stream Centerline	Vegetation Coverage Developed, Open Space Old Field Pasture/Hayfield Scrub/Shrub Successional Hardwood Woodland	Sources: Imagery (Google Earth) Coordinate System: State Plane Ohio South NAD 1983 July 30, 2026	PIKE COUNTY	BAKU STATION PROJECT Figure 4. Vegetation Coverage AEP OHIO TRANSMISSION COMPANY AEP Company BOUNDLESS ENERGY N 0400 Feet
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▲ Proposed AEP Station □ Mine Opening 0.25-Mile Buffer --- Project 5-Mile Buffer ▭ Municipal Boundary ▭ Township Boundary ▭ USGS 24k Topo Quad Boundary No karst points or mine openings are within the map extent.	Sources: Census Boundaries (ESRI 2021) Topo Quads (USGS 2019) Mine and Karst Data (ODNR 2022) Coordinate System: State Plane Ohio South NAD 1983 July 31, 2026		BAKU STATION PROJECT Figure 5. Hibernaculum Desktop Review   0 1 2 Miles N
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APPENDIX

B WETLAND DATA FORMS AND PHOTOGRAPHS

*Wetland photographs were collected at the locations of the wetland data points as shown in Figure 3, Appendix A.

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Baku Station</u>	City/County: <u>/ Pike</u>	Sampling Date: <u>04/14/2026</u>
Applicant/Owner: <u>AEP</u>	State: <u>OH</u>	Sampling Point: <u>W-BS-1-1</u>
Investigator(s): <u>A. Glenn</u> Section, Township, Range: <u>OH380040N0220WA</u>		
Landform (hillside, terrace, etc.): <u>Terrace (River or Stream)</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): <u>LRR N, MLRA 124</u>	Lat: <u>38.989292</u>	Long: <u>-83.021078</u> Datum: <u>WGS 1984</u>
Soil Map Unit Name: <u>Fox loam, 0 to 2 percent slopes</u>	NWI classification: <u>N/A</u>	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: PEM wetland in maintained old field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☒ Surface Water (A1) ☐ True Aquatic Plants (B14) ☒ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☒ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): <u>2</u> Water Table Present? Yes ☒ No ☐ Depth (inches): <u>12</u> Saturation Present? Yes ☒ No ☐ Depth (inches): <u>12</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-1-1

Tree Stratum (Plot size: <u>30 ft. rad.</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. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <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>85</u></td> <td>x 2 = <u>170</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>195</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.95</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>85</u>	x 2 = <u>170</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: <u>100</u> (A)	<u>195</u> (B)	Prevalence Index = B/A = <u>1.95</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>85</u>	x 2 = <u>170</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: <u>100</u> (A)	<u>195</u> (B)																			
Prevalence Index = B/A = <u>1.95</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____	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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Phalaris arundinacea</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Juncus effusus</u>	<u>15</u>	<u>N</u>	<u>FACW</u>																	
3. <u>Schoenoplectus tabernaemontani</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																	
4. <u>Microstegium vimineum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: W-BS-1-1**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		
0-16	10YR 4/1	80	10YR 3/4	20	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☒ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Baku Station</u>	City/County: <u>/ Pike</u>	Sampling Date: <u>04/14/2026</u>
Applicant/Owner: <u>AEP</u>	State: <u>OH</u>	Sampling Point: <u>U-BS-1-1</u>
Investigator(s): <u>Anthony Glenn</u> Section, Township, Range: <u>OH380040N0220WA</u>		
Landform (hillside, terrace, etc.): <u>Terrace</u>	Local relief (concave, convex, none): <u>Flat</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): <u>LRR N, MLRA 124</u> Lat: <u>38.989355</u> Long: <u>-83.021479</u> Datum: <u>WGS 1984</u>		
Soil Map Unit Name: <u>Fox loam, 0 to 2 percent slopes</u> NWI classification: <u>N/A</u>		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

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

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: Upland data point in maintained old field.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ 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): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-1-1

Tree Stratum (Plot size: <u>30 ft. rad.</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. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>35</u></td> <td>x 5 = <u>175</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>375</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.95</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>35</u>	x 5 = <u>175</u>	Column Totals: <u>95</u> (A)	<u>375</u> (B)	Prevalence Index = B/A = <u>3.95</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species <u>40</u>	x 3 = <u>120</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>35</u>	x 5 = <u>175</u>																			
Column Totals: <u>95</u> (A)	<u>375</u> (B)																			
Prevalence Index = B/A = <u>3.95</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____	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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Poa arida</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Bromus inermis</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>																	
3. <u>Taraxacum officinale</u>	<u>15</u>	<u>N</u>	<u>FACU</u>																	
4. <u>Plantago lanceolata</u>	<u>10</u>	<u>N</u>	<u>UPL</u>																	
5. <u>Trifolium repens</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
95 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No ☒																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-1-1**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		
0-16	10YR 4/4	100		0			LC	

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

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16)
☐ (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19)
☐ (MLRA 136, 147)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/14/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-1-2
Investigator(s): Anthony Glenn Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.990564 Long: -83.020095 Datum: WGS 1984
Soil Map Unit Name: Wilbur silt loam, occasionally flooded 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	

Remarks:
PEM wetland in NWI mapped feature (PEM1A).

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☒ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): <u>2</u> Water Table Present? Yes ☐ No ☒ Depth (inches): <u> </u> Saturation Present? Yes ☒ No ☐ Depth (inches): <u>12</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-1-2

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																			
1. <u>Salix nigra</u>	<u>15</u>	<u>Y</u>	<u>OBL</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)																		
2. <u>Acer saccharinum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
<u>25</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>110</u></td> <td>x 1 = <u>110</u></td> </tr> <tr> <td>FACW species <u>15</u></td> <td>x 2 = <u>30</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>140</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.12</u></td> <td colspan="2"></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>110</u>	x 1 = <u>110</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: <u>125</u> (A)	<u>140</u> (B)	Prevalence Index = B/A = <u>1.12</u>			
Total % Cover of:	Multiply by:																					
OBL species <u>110</u>	x 1 = <u>110</u>																					
FACW species <u>15</u>	x 2 = <u>30</u>																					
FAC species _____	x 3 = _____																					
FACU species _____	x 4 = _____																					
UPL species _____	x 5 = _____																					
Column Totals: <u>125</u> (A)	<u>140</u> (B)																					
Prevalence Index = B/A = <u>1.12</u>																						
50% of total cover: _____ 20% of total cover: _____																						
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
<u>0</u> = Total Cover																						
50% of total cover: _____ 20% of total cover: _____																						
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																						
1. <u>Typha angustifolia</u>	<u>70</u>	<u>Y</u>	<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)																		
2. <u>Acorus calamus</u>	<u>15</u>	<u>N</u>	<u>OBL</u>																			
3. <u>Schoenoplectus tabernaemontani</u>	<u>10</u>	<u>N</u>	<u>OBL</u>																			
4. <u>Phalaris arundinacea</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
10. _____	_____	_____	_____																			
11. _____	_____	_____	_____																			
<u>100</u> = Total Cover																						
50% of total cover: _____ 20% of total cover: _____																						
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
<u>0</u> = Total Cover																						
50% of total cover: _____ 20% of total cover: _____																						
Remarks: (Include photo numbers here or on a separate sheet.) 																						

Definitions of Four Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

SOIL

Sampling Point: W-BS-1-2**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		
0-16	10YR 4/2	80	10YR 4/4	20	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☒ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/14/2026
Applicant/Owner: AEP State: OH Sampling Point: U-BS-1-2
Investigator(s): Anthony Glenn Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Flat Slope (%): _____
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.990817 Long: -83.020415 Datum: WGS 1984
Soil Map Unit Name: Wilbur silt loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No ☒	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present? Yes _____ No ☒	
Wetland Hydrology Present? Yes _____ No ☒	

Remarks:

Upland data point in maintained old field.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ____ Surface Water (A1) ____ True Aquatic Plants (B14) ____ High Water Table (A2) ____ Hydrogen Sulfide Odor (C1) ____ Saturation (A3) ____ Oxidized Rhizospheres on Living Roots (C3) ____ Water Marks (B1) ____ Presence of Reduced Iron (C4) ____ Sediment Deposits (B2) ____ Recent Iron Reduction in Tilled Soils (C6) ____ Drift Deposits (B3) ____ Thin Muck Surface (C7) ____ Algal Mat or Crust (B4) ____ Other (Explain in Remarks) ____ Iron Deposits (B5) ____ Inundation Visible on Aerial Imagery (B7) ____ Water-Stained Leaves (B9) ____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ____ Surface Soil Cracks (B6) ____ Sparsely Vegetated Concave Surface (B8) ____ Drainage Patterns (B10) ____ Moss Trim Lines (B16) ____ Dry-Season Water Table (C2) ____ Crayfish Burrows (C8) ____ Saturation Visible on Aerial Imagery (C9) ____ Stunted or Stressed Plants (D1) ____ Geomorphic Position (D2) ____ Shallow Aquitard (D3) ____ Microtopographic Relief (D4) ____ FAC-Neutral Test (D5)
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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 ☒
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-1-2

Tree Stratum (Plot size: <u>30 ft. rad.</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. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>95</u></td> <td>x 4 = <u>380</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>405</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.05</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species <u>95</u>	x 4 = <u>380</u>	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>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species <u>95</u>	x 4 = <u>380</u>																			
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>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____	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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Poa annua</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Taraxacum officinale</u>	<u>15</u>	<u>N</u>	<u>FACU</u>																	
3. <u>Trifolium repens</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
4. <u>Plantago lanceolata</u>	<u>5</u>	<u>N</u>	<u>UPL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No ☒																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-1-2**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		
0-16	10YR 4/4	100		0			LC	

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

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16)
☐ (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19)
☐ (MLRA 136, 147)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/15/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-1-3
Investigator(s): Anthony Glenn Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Terrace (River or Stream) Local relief (concave, convex, none): Concave Slope (%): 1
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.984929 Long: -83.021685 Datum: WGS 1984
Soil Map Unit Name: Wilbur silt loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
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Remarks:

PEM wetland in a localized depression between old fields.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☒ Surface Water (A1) ☐ True Aquatic Plants (B14) ☒ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☒ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): <u>2</u> Water Table Present? Yes ☒ No ☐ Depth (inches): <u>1</u> Saturation Present? Yes ☒ No ☐ Depth (inches): <u>16</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-1-3

Tree Stratum (Plot size: <u>30 ft. rad.</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. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <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>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>190</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.9</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: <u>100</u> (A)	<u>190</u> (B)	Prevalence Index = B/A = <u>1.9</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>90</u>	x 2 = <u>180</u>																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: <u>100</u> (A)	<u>190</u> (B)																			
Prevalence Index = B/A = <u>1.9</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Salix nigra</u>	<u>5</u>	<u>Y</u>	<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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
5 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Impatiens capensis</u>	<u>15</u>	<u>N</u>	<u>FACW</u>																	
3. <u>Juncus effusus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																	
4. <u>Typha angustifolia</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
5. <u>Cyperus eragrostis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
95 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: W-BS-1-3**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		
0-16	10YR 4/2	70	10YR 4/4	30	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☒ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

ENG FORM 6116-4, SEP 2024 Eastern Mountains and Piedmont – Version 2.0

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-1-3

Tree Stratum (Plot size: <u>30 ft. rad.</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. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>305</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.07</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>75</u> (A)	<u>305</u> (B)	Prevalence Index = B/A = <u>4.07</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species <u>70</u>	x 4 = <u>280</u>																			
UPL species <u>5</u>	x 5 = <u>25</u>																			
Column Totals: <u>75</u> (A)	<u>305</u> (B)																			
Prevalence Index = B/A = <u>4.07</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = 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.																
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Sorghum halepense</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Glechoma hederacea</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Lepidium virginicum</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>																	
4. <u>Plantago lanceolata</u>	<u>5</u>	<u>N</u>	<u>UPL</u>																	
5. <u>Cardamine hirsuta</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
75 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover				Hydrophytic Vegetation Present? Yes _____ No ☒																
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-1-3

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		
0-16	10YR 4/4	100		0			LC	

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

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16)
☐ (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19)
☐ (MLRA 136, 147)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/15/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-1-4
Investigator(s): A. Glenn Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.988355 Long: -83.01882 Datum: WGS 1984
Soil Map Unit Name: Princeton fine sandy loam, 15 to 30 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
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Remarks:

PEM wetland in localized depression near toe of slope in maintained old field.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☒ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? Yes ☒ No ☐ Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
---	---

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-1-4

Tree Stratum (Plot size: <u>30 ft. rad.</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. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>245</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.33</u>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: <u>105</u> (A)	<u>245</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>5</u>	x 1 = <u>5</u>																	
FACW species <u>60</u>	x 2 = <u>120</u>																	
FAC species <u>40</u>	x 3 = <u>120</u>																	
FACU species _____	x 4 = _____																	
UPL species _____	x 5 = _____																	
Column Totals: <u>105</u> (A)	<u>245</u> (B)																	
50% of total cover: _____ 20% of total cover: _____																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
0 = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																		
1. <u>Juncus effusus</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% ☒ <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Lysimachia nummularia</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
3. <u>Cyperus eragrostis</u>	<u>20</u>	<u>N</u>	<u>FACW</u>															
4. <u>Microstegium vimineum</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>															
5. <u>Scirpus atrovirens</u>	<u>5</u>	<u>N</u>	<u>OBL</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
105 = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
0 = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: W-BS-1-4**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		
0-16	10YR 4/2	60	10YR 4/4	40	C	M	LC	

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)
☐ 2 cm Muck (A10) (**LRR N**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Iron Monosulfide (A18)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☒ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7)
- ☐ Polyvalue Below Surface (S8) (**MLRA 147, 148**)
☐ Thin Dark Surface (S9) (**MLRA 147, 148**)
☐ Loamy Mucky Mineral (F1) (**MLRA 136**)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☒ Redox Depressions (F8)
☐ Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
☐ Umbric Surface (F13) (**MLRA 122, 136**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 148**)
☐ Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- ☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
☐ Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
☐ Very Shallow Dark Surface (F22)
☐ 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:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-1-4

Tree Stratum (Plot size: <u>30 ft. rad.</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. _____	_____	_____	_____																	
0 = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</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>100</u> (A)</td> <td><u>420</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.2</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>100</u> (A)	<u>420</u> (B)	Prevalence Index = B/A = <u>4.2</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>20</u>	x 5 = <u>100</u>																			
Column Totals: <u>100</u> (A)	<u>420</u> (B)																			
Prevalence Index = B/A = <u>4.2</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____	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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
0 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Poa annua</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Plantago lanceolata</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>																	
3. <u>Allium canadense</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
4. <u>Trifolium repens</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
100 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No ☒																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
0 = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-1-4**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		
0-16	10YR 5/4	100		0			LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/14/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-5-1
Investigator(s): Philip Renner, Mark Behnke Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): Convex Slope (%): 2-5
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.984512 Long: -83.011047 Datum: WGS 1984
Soil Map Unit Name: Omulga silt loam, 6 to 12 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
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Remarks:

PEM wetland abutting ephemeral stream in old field.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☒ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): <u> </u> Water Table Present? Yes ☒ No ☐ Depth (inches): <u>8</u> Saturation Present? Yes ☒ No ☐ Depth (inches): <u>4</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-5-1

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Platanus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>FACW</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)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
50% of total cover: _____		20% of total cover: _____		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>145</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.93</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>75</u> (A)	<u>145</u> (B)	Prevalence Index = B/A = <u>1.93</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>20</u>	x 1 = <u>20</u>																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species <u>5</u>	x 5 = <u>25</u>																			
Column Totals: <u>75</u> (A)	<u>145</u> (B)																			
Prevalence Index = B/A = <u>1.93</u>																				
<u>5</u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
50% of total cover: _____		20% of total cover: _____																		
<u>0</u> = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Lysimachia nummularia</u>	<u>40</u>	<u>Y</u>	<u>FACW</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)																
2. <u>Juncus effusus</u>	<u>5</u>	<u>N</u>	<u>FACW</u>																	
3. <u>Carex pellita</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>																	
4. <u>Digitaria ischaemum</u>	<u>5</u>	<u>N</u>	<u>UPL</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% of total cover: _____		20% of total cover: _____																		
<u>70</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% of total cover: _____		20% of total cover: _____																		
<u>0</u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

Definitions of Four Vegetation Strata:
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

SOIL

Sampling Point: W-BS-5-1**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		
0-15	7.5YR 3/2	90	7.5YR 4/6	10	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-5-1

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Liriodendron tulipifera</u>	<u>15</u>	<u>Y</u>	<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>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>15</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td>x 4 = <u>440</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>135</u> (A)</td> <td><u>535</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.96</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>110</u>	x 4 = <u>440</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>135</u> (A)	<u>535</u> (B)	Prevalence Index = B/A = <u>3.96</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>110</u>	x 4 = <u>440</u>																			
UPL species <u>10</u>	x 5 = <u>50</u>																			
Column Totals: <u>135</u> (A)	<u>535</u> (B)																			
Prevalence Index = B/A = <u>3.96</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Rosa multiflora</u>	<u>20</u>	<u>Y</u>	<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. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>20</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Vernonia gigantea</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Solanum carolinense</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Viola sororia</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																	
4. <u>Cardamine hirsuta</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
5. <u>Lonicera japonica</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
6. <u>Stellaria media</u>	<u>10</u>	<u>N</u>	<u>UPL</u>																	
7. <u>Rubus argutus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>100</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No ☒																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-5-1**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					LC	
4-15	10YR 4/4	100					LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/14/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-5-2
Investigator(s): Philip Renner, Mark Behnke Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): Concave Slope (%): 2-3
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.984692 Long: -83.013622 Datum: WGS 1984
Soil Map Unit Name: Princeton fine sandy loam, 8 to 15 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
---	---

Remarks:

PEM wetland in localized depression within old field.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☐ Saturation (A3) ☒ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ 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): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-5-2

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Platanus occidentalis</u>	<u>10</u>	<u>Y</u>	<u>FACW</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. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>10</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>180</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.4</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species _____	x 5 = _____	Column Totals: <u>75</u> (A)	<u>180</u> (B)	Prevalence Index = B/A = <u>2.4</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species <u>50</u>	x 2 = <u>100</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species _____	x 5 = _____																			
Column Totals: <u>75</u> (A)	<u>180</u> (B)																			
Prevalence Index = B/A = <u>2.4</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Juncus effusus</u>	<u>25</u>	<u>Y</u>	<u>FACW</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>Vernonia gigantea</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
3. <u>Elymus virginicus</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>																	
4. <u>Rubus argutus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>65</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – 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.)																				

SOIL

Sampling Point: W-BS-5-2**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		
0-15	10YR 4/2	85	10R 4/6	15	C	M		

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/14/2026
Applicant/Owner: AEP State: OH Sampling Point: U-BS-5-2
Investigator(s): Philip Renner, Mark Behnke Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): Convex Slope (%): 1-3
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.984595 Long: -83.013734 Datum: WGS 1984
Soil Map Unit Name: Princeton fine sandy loam, 8 to 15 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:
Upland data point in hillside.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☐ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ 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): (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-5-2

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Juglans nigra</u>	<u>10</u>	<u>Y</u>	<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>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (A/B)																
2. <u>Platanus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>15</u> =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>85</u></td> <td>x 4 = <u>340</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>365</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.84</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>85</u>	x 4 = <u>340</u>	UPL species _____	x 5 = _____	Column Totals: <u>95</u> (A)	<u>365</u> (B)	Prevalence Index = B/A = <u>3.84</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>85</u>	x 4 = <u>340</u>																			
UPL species _____	x 5 = _____																			
Column Totals: <u>95</u> (A)	<u>365</u> (B)																			
Prevalence Index = B/A = <u>3.84</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Rosa multiflora</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>30</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Dichanthelium clandestinum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Rubus argutus</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Solanum carolinense</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																	
4. <u>Allium cernuum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>50</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No ☒																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-5-2

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		
0-8	10YR 4/4	100					LC	
8-15	7.5YR 4/2	90	7.5YR 3/3	10	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☒ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/14/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-5-3
Investigator(s): Philip Renner, Mark Behnke Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Low Hill Local relief (concave, convex, none): Concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.984208 Long: -83.014344 Datum: WGS 1984
Soil Map Unit Name: Princeton fine sandy loam, 15 to 30 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
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Remarks:
PEM wetland alongside stream, surrounded by hardwood woodland forest

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☒ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☒ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ 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): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-5-3

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Platanus occidentalis</u>	<u>20</u>	<u>Y</u>	<u>FACW</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>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)																
2. <u>Acer negundo</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>40</u>	=Total Cover		Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</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>300</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.73</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species _____	x 4 = _____	UPL species <u>20</u>	x 5 = <u>100</u>	Column Totals: <u>110</u> (A)	<u>300</u> (B)	Prevalence Index = B/A = <u>2.73</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species _____	x 4 = _____																			
UPL species <u>20</u>	x 5 = <u>100</u>																			
Column Totals: <u>110</u> (A)	<u>300</u> (B)																			
Prevalence Index = B/A = <u>2.73</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Elymus virginicus</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% ☒ <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Impatiens pallida</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Stellaria media</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	<u>70</u>	=Total Cover																		
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
50% of total cover: _____ 20% of total cover: _____																				
Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – 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.)																				

SOIL

Sampling Point: W-BS-5-3**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	10R 2/1	95	10YR 3/4	5	C	M	LC	
10-16	10YR 4/1	95	10YR 4/6		C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☒ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/14/2026
Applicant/Owner: AEP State: OH Sampling Point: U-BS-5-3
Investigator(s): Mark Behnke, Philip Renner Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): Convex Slope (%): 5-10
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.984073 Long: -83.014342 Datum: WGS 1984
Soil Map Unit Name: Princeton fine sandy loam, 15 to 30 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:

Non-wetland data point corresponding to W-BS-5-3.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☐ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ 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): (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-5-3

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Liriodendron tulipifera</u>	<u>20</u>	<u>Y</u>	<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>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)																
2. <u>Acer negundo</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>30</u> =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>340</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.78</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species _____	x 5 = _____	Column Totals: <u>90</u> (A)	<u>340</u> (B)	Prevalence Index = B/A = <u>3.78</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>70</u>	x 4 = <u>280</u>																			
UPL species _____	x 5 = _____																			
Column Totals: <u>90</u> (A)	<u>340</u> (B)																			
Prevalence Index = B/A = <u>3.78</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Acer rubrum</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Lindera benzoin</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
3. <u>Rosa multiflora</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>30</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Podophyllum peltatum</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>30</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>0</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-5-3**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		
0-12	10YR 4/4	100					LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Baku Station</u>	City/County: <u>/ Pike</u>	Sampling Date: <u>04/14/2026</u>
Applicant/Owner: <u>AEP</u>	State: <u>OH</u>	Sampling Point: <u>W-BS-5-4</u>
Investigator(s): <u>Mark Behnke, Philip Renner</u> Section, Township, Range: <u>OH380040N0220WA</u>		
Landform (hillside, terrace, etc.): <u>Hill</u>	Local relief (concave, convex, none): <u>Convex</u>	Slope (%): <u>0-2</u>
Subregion (LRR or MLRA): <u>LRR N, MLRA 124</u> Lat: <u>38.983545</u> Long: <u>-83.017351</u> Datum: <u>WGS 1984</u>		
Soil Map Unit Name: <u>Princeton fine sandy loam, 15 to 30 percent slopes</u> NWI classification: <u>N/A</u>		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)		

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	<table style="width:100%;"> <tr> <td style="width:60%;">Is the Sampled Area within a Wetland?</td> <td style="width:40%;">Yes ☒ No ☐</td> </tr> </table>	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Is the Sampled Area within a Wetland?	Yes ☒ No ☐		
Remarks: PEM wetland abutting an intermittent stream.			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
---	--

Field Observations: Surface Water Present? Yes ☐ No ☒ Water Table Present? Yes ☒ No ☐ Saturation Present? Yes ☒ No ☐ (includes capillary fringe) Depth (inches): _____ Depth (inches): <u>10</u> Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-5-4

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer negundo</u>	<u>10</u>	<u>Y</u>	<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>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>10</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>2</u></td> <td>x 5 = <u>10</u></td> </tr> <tr> <td>Column Totals: <u>67</u> (A)</td> <td><u>170</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.54</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>2</u>	x 5 = <u>10</u>	Column Totals: <u>67</u> (A)	<u>170</u> (B)	Prevalence Index = B/A = <u>2.54</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>2</u>	x 5 = <u>10</u>																			
Column Totals: <u>67</u> (A)	<u>170</u> (B)																			
Prevalence Index = B/A = <u>2.54</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Luzula multiflora</u>	<u>5</u>	<u>Y</u>	<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)																
2. <u>Lindera benzoin</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>15</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Elymus virginicus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Impatiens pallida</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Stellaria media</u>	<u>2</u>	<u>N</u>	<u>UPL</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>42</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: W-BS-5-4**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		
0-12	10YR 3/2	90	10YR 4/6	10	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

ENG FORM 6116-4, SEP 2024 Eastern Mountains and Piedmont – Version 2.0

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-5-4

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																			
1. <u>Liriodendron tulipifera</u>	<u>20</u>	<u>Y</u>	<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>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																		
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
<u>20</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>130</u></td> <td>x 4 = <u>520</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>520</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4</u></td> <td colspan="2"></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species <u>130</u>	x 4 = <u>520</u>	UPL species _____	x 5 = _____	Column Totals: <u>130</u> (A)	<u>520</u> (B)	Prevalence Index = B/A = <u>4</u>			
Total % Cover of:	Multiply by:																					
OBL species _____	x 1 = _____																					
FACW species _____	x 2 = _____																					
FAC species _____	x 3 = _____																					
FACU species <u>130</u>	x 4 = <u>520</u>																					
UPL species _____	x 5 = _____																					
Column Totals: <u>130</u> (A)	<u>520</u> (B)																					
Prevalence Index = B/A = <u>4</u>																						
50% of total cover: _____ 20% of total cover: _____																						
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																						
1. <u>Liriodendron tulipifera</u>	<u>5</u>	<u>Y</u>	<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)																		
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
<u>5</u> = Total Cover																						
50% of total cover: _____ 20% of total cover: _____																						
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																						
1. <u>Podophyllum peltatum</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																		
2. <u>Polystichum acrostichoides</u>	<u>15</u>	<u>N</u>	<u>FACU</u>																			
3. <u>Cardamine concatenata</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
10. _____	_____	_____	_____																			
11. _____	_____	_____	_____																			
<u>80</u> = Total Cover																						
50% of total cover: _____ 20% of total cover: _____																						
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																						
1. <u>Lonicera japonica</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Present? Yes _____ No ☒																		
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
<u>25</u> = Total Cover																						
50% of total cover: _____ 20% of total cover: _____																						
Remarks: (Include photo numbers here or on a separate sheet.)																						

SOIL

Sampling Point: U-BS-5-4**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		
0-12	7.5YR 4/3	100					LC	

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

☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (MLRA 147, 148)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (MLRA 147, 148)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (MLRA 136)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)
☐ 2 cm Muck (A10) (LRR N)	☐ Redox Dark Surface (F6)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)
☐ Iron Monosulfide (A18)	☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136)
☐ Sandy Mucky Mineral (S1)	☐ Umbric Surface (F13) (MLRA 122, 136)
☐ Sandy Gleyed Matrix (S4)	☐ Piedmont Floodplain Soils (F19) (MLRA 148)
☐ Sandy Redox (S5)	☐ Red Parent Material (F21) (MLRA 127, 147, 148)
☐ Stripped Matrix (S6)	
☐ Dark Surface (S7)	

Indicators for Problematic Hydric Soils³:

☐ 2 cm Muck (A10) (MLRA 147)
☐ Coast Prairie Redox (A16)
☐ (MLRA 147, 148)
☐ Piedmont Floodplain Soils (F19)
☐ (MLRA 136, 147)
☐ Red Parent Material (F21)
☐ (outside MLRA 127, 147, 148)
☐ Very Shallow Dark Surface (F22)
☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/15/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-5-5
Investigator(s): Philip Renner, Mark Behnke Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): Concave Slope (%): 2-3
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.980087 Long: -83.017684 Datum: WGS 1984
Soil Map Unit Name: Princeton fine sandy loam, 3 to 8 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
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Remarks:

PEM wetland abutting an intermittent stream.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☒ Hydrogen Sulfide Odor (C1) ☒ Saturation (A3) ☒ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ 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): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
---	--

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-5-5

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Platanus occidentalis</u>	<u>10</u>	<u>Y</u>	<u>FACW</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>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>10</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>50</u></td> <td>x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>7</u></td> <td>x 4 = <u>28</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>102</u> (A)</td> <td><u>263</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.58</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>50</u>	x 3 = <u>150</u>	FACU species <u>7</u>	x 4 = <u>28</u>	UPL species _____	x 5 = _____	Column Totals: <u>102</u> (A)	<u>263</u> (B)	Prevalence Index = B/A = <u>2.58</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>50</u>	x 3 = <u>150</u>																			
FACU species <u>7</u>	x 4 = <u>28</u>																			
UPL species _____	x 5 = _____																			
Column Totals: <u>102</u> (A)	<u>263</u> (B)																			
Prevalence Index = B/A = <u>2.58</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Lindera benzoin</u>	<u>10</u>	<u>Y</u>	<u>FAC</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>Acer negundo</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>25</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Impatiens pallida</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. <u>Carex pellita</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																	
3. <u>Cardamine hirsuta</u>	<u>2</u>	<u>N</u>	<u>FACU</u>																	
4. <u>Zizia aurea</u>	<u>5</u>	<u>N</u>	<u>FAC</u>																	
5. <u>Veronica serpyllifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
6. <u>Phalaris arundinacea</u>	<u>10</u>	<u>N</u>	<u>FACW</u>																	
7. <u>Digitaria sanguinalis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>67</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No _____																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: W-BS-5-5**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	10R 2/1	100					LC	
6-15	10YR 3/2	98	10YR 3/4	2	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/15/2026
Applicant/Owner: AEP State: OH Sampling Point: U-BS-5-5
Investigator(s): Philip Renner, Mark Behnke Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Hill Local relief (concave, convex, none): CONVEX Slope (%): 3-5
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.980061 Long: -83.01781 Datum: WGS 1984
Soil Map Unit Name: Princeton fine sandy loam, 3 to 8 percent slopes 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks:
Upland data point in hillside.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☐ Saturation (A3) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ 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): (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-5-5

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer rubrum</u>	<u>20</u>	<u>Y</u>	<u>FAC</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>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)																
2. <u>Carya glabra</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>30</u> =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>85</u></td> <td>x 4 = <u>340</u></td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>120</u> (A)</td> <td><u>445</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.71</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>85</u>	x 4 = <u>340</u>	UPL species _____	x 5 = _____	Column Totals: <u>120</u> (A)	<u>445</u> (B)	Prevalence Index = B/A = <u>3.71</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species <u>35</u>	x 3 = <u>105</u>																			
FACU species <u>85</u>	x 4 = <u>340</u>																			
UPL species _____	x 5 = _____																			
Column Totals: <u>120</u> (A)	<u>445</u> (B)																			
Prevalence Index = B/A = <u>3.71</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Acer rubrum</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Prunus serotina</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Carya glabra</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>15</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Polystichum acrostichoides</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>																
2. <u>Claytonia virginica</u>	<u>10</u>	<u>N</u>	<u>FAC</u>																	
3. <u>Cardamine concatenata</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
4. <u>Lonicera morrowii</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>55</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. <u>Lonicera japonica</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>20</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-5-5**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		
O-3	10YR 4/3	100					LC	
3-15	10R 4/4	100					LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Baku Station City/County: / Pike Sampling Date: 04/15/2026
Applicant/Owner: AEP State: OH Sampling Point: W-BS-5-6
Investigator(s): Philip Renner, Mark Behnke Section, Township, Range: OH380040N0220WA
Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR N, MLRA 124 Lat: 38.98055 Long: -83.02052 Datum: WGS 1984
Soil Map Unit Name: Huntington silt loam, 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
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Remarks:

PFO wetland depression near toe of slope.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ☐ Surface Water (A1) ☐ True Aquatic Plants (B14) ☐ High Water Table (A2) ☐ Hydrogen Sulfide Odor (C1) ☐ Saturation (A3) ☒ Oxidized Rhizospheres on Living Roots (C3) ☐ Water Marks (B1) ☐ Presence of Reduced Iron (C4) ☐ Sediment Deposits (B2) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Drift Deposits (B3) ☐ Thin Muck Surface (C7) ☐ Algal Mat or Crust (B4) ☐ Other (Explain in Remarks) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-Neutral Test (D5)
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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 ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: W-BS-5-6

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Populus deltoides</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. <u>Acer negundo</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
3. <u>Platanus occidentalis</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>																	
4. <u>Acer saccharinum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>90</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. <u>Acer saccharinum</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>80</u></td> <td>x 3 = <u>240</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: <u>150</u> (A)</td> <td><u>380</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.53</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>80</u>	x 3 = <u>240</u>	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: <u>150</u> (A)	<u>380</u> (B)	Prevalence Index = B/A = <u>2.53</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>80</u>	x 3 = <u>240</u>																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: <u>150</u> (A)	<u>380</u> (B)																			
Prevalence Index = B/A = <u>2.53</u>																				
2. <u>Acer negundo</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>40</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation ☒ <u>2</u> - Dominance Test is >50% ☒ <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u>_____</u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>0</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. <u>Vitis rotundifolia</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
<u>20</u> = Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes ☒ No _____																

SOIL

Sampling Point: W-BS-5-6**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		
0-12	10YR 4/2	95	10YR 4/6	5	C	M	LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☒ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
--	--

Project/Site:	Baku Station	City/County:	/ Pike	Sampling Date:	04/15/2026
Applicant/Owner:	AEP	State:	OH	Sampling Point:	U-BS-5-6
Investigator(s):	Philip Renner, Mark Behnke	Section, Township, Range:	OH380040N0220WA		
Landform (hillside, terrace, etc.):	Hill	Local relief (concave, convex, none):	Convex	Slope (%):	5-10
Subregion (LRR or MLRA):	LRR N, MLRA 124	Lat:	38.980608	Long:	-83.020375
Datum:	WGS 1984				
Soil Map Unit Name:	Fox loam, 2 to 6 percent slopes		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 <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐					
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic? (If needed, explain any answers in Remarks.)					

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

Hydrophytic Vegetation Present?	Yes ☐ No ☒	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☒		
Remarks: Upland data point in maintained lawn.			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ True Aquatic Plants (B14) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)
--

VEGETATION (Four Strata) – Use scientific names of plants.

 Sampling Point: U-BS-5-6

Tree Stratum (Plot size: <u>30 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer saccharinum</u>	<u>10</u>	<u>Y</u>	<u>FACW</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>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>10</u> =Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species <u>88</u></td> <td>x 4 = <u>352</u></td> </tr> <tr> <td>UPL species <u>30</u></td> <td>x 5 = <u>150</u></td> </tr> <tr> <td>Column Totals: <u>128</u> (A)</td> <td><u>522</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>4.08</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species _____	x 3 = _____	FACU species <u>88</u>	x 4 = <u>352</u>	UPL species <u>30</u>	x 5 = <u>150</u>	Column Totals: <u>128</u> (A)	<u>522</u> (B)	Prevalence Index = B/A = <u>4.08</u>	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species <u>10</u>	x 2 = <u>20</u>																			
FAC species _____	x 3 = _____																			
FACU species <u>88</u>	x 4 = <u>352</u>																			
UPL species <u>30</u>	x 5 = <u>150</u>																			
Column Totals: <u>128</u> (A)	<u>522</u> (B)																			
Prevalence Index = B/A = <u>4.08</u>																				
50% of total cover: _____ 20% of total cover: _____																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. rad.</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
<u>0</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Herb Stratum (Plot size: <u>5 ft. rad.</u>)																				
1. <u>Solanum carolinense</u>	<u>25</u>	<u>Y</u>	<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>Alliaria petiolata</u>	<u>20</u>	<u>N</u>	<u>FACU</u>																	
3. <u>Digitaria sanguinalis</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
4. <u>Rumex obtusifolius</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
5. <u>Allium cernuum</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
6. <u>Stellaria media</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>																	
7. <u>Taraxacum officinale</u>	<u>8</u>	<u>N</u>	<u>FACU</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
<u>108</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Woody Vine Stratum (Plot size: <u>30 ft. rad.</u>)																				
1. <u>Lonicera japonica</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, 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 Vine – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
<u>10</u> =Total Cover																				
50% of total cover: _____ 20% of total cover: _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: U-BS-5-6

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		
0-12	10YR 4/4	100					LC	

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

- | | |
|--|--|
| ☐ Histosol (A1) | ☐ Polyvalue Below Surface (S8) (MLRA 147, 148) |
| ☐ Histic Epipedon (A2) | ☐ Thin Dark Surface (S9) (MLRA 147, 148) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) (MLRA 136) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) | ☐ Depleted Matrix (F3) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Iron Monosulfide (A18) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Umbric Surface (F13) (MLRA 122, 136) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| ☐ Sandy Redox (S5) | ☐ Red Parent Material (F21) (MLRA 127, 147, 148) |
| ☐ Stripped Matrix (S6) | |
| ☐ Dark Surface (S7) | |

Indicators for Problematic Hydric Soils³:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) |
| ☐ (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Red Parent Material (F21) |
| ☐ (outside MLRA 127, 147, 148) |
| ☐ Very Shallow Dark Surface (F22) |
| ☐ 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:

Site: W-BS-1-1**Rater(s):** Alice Burney, Anthony Glenn**Date:** 04/14/26

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).
Field Id:
Wetland BS-1-1

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)

 acres

3	5
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	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

- ☒ ditch
☐ tile
☐ dike
☐ weir
☐ stormwater input

- ☒ point source (nonstormwater)
☐ filling/grading
☐ road bed/RR track
☐ dredging
☐ other _____

4.5	19.5
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

19.5

subtotal this page

Site: W-BS-1-1	Rater(s): Alice Burney, Anthony Glenn	Date: 04/14/26
-----------------------	--	-----------------------

19.5

subtotal first page

0	19.5
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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)

0	19.5
---	------

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/tussocks
- ☒ 1 Coarse woody debris >15cm (6in)
- ☒ 1 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

19.5

End of Quantitative Rating. Complete Categorization Worksheets.

Site: W-BS-1-2

Rater(s): Alice Burney, Anthony Glenn

Date: 04/14/26

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).Field Id:
Wetland BS-1-2

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)

1.14 acres

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)

10	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)

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

- ☒ ditch
☐ tile
☐ dike
☐ weir
☒ stormwater input

- ☐ point source (nonstormwater)
☐ filling/grading
☐ road bed/RR track
☐ dredging
☐ other

7.5	26.5
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

26.5

subtotal this page

Site: W-BS-1-2	Rater(s): Alice Burney, Anthony Glenn	Date: 04/14/26
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26.5

subtotal first page

0	26.5
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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	25.5
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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
- ☐ 1 Emergent
- ☐ 1 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
- ☐ 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

25.5

End of Quantitative Rating. Complete Categorization Worksheets.

Site: W-BS-1-3

Rater(s): Alice Burney, Anthony Glenn

Date: 04/15/26

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Field Id:
Wetland BS-1-3

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)

acres

5	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)

10	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)

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	
☐ ditch	☐ point source (nonstormwater)
☐ tile	☐ filling/grading
☐ dike	☒ road bed/RR track
☐ weir	☐ dredging
☐ stormwater input	☐ other _____

7	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	
☒ mowing	☐ shrub/sapling removal
☐ grazing	☐ herbaceous/aquatic bed removal
☐ clearcutting	☐ sedimentation
☐ selective cutting	☐ dredging
☐ woody debris removal	☐ farming
☐ toxic pollutants	☐ nutrient enrichment

24
subtotal this page

Site: W-BS-1-3	Rater(s): Alice Burney, Anthony Glenn	Date: 04/15/26
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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	26
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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.

- 2

 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/tussocks
- ☐ Coarse woody debris >15cm (6in)
- ☐ 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

26

End of Quantitative Rating. Complete Categorization Worksheets.

Site: W-BS-1-4

Rater(s): Alice Burney, Anthony Glenn

Date: 04/15/26

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Field Id:
Wetland BS-1-4

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)

acres

3	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)

4	7
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	
☐ ditch	☐ point source (nonstormwater)
☐ tile	☐ filling/grading
☐ dike	☐ road bed/RR track
☐ weir	☐ dredging
☐ stormwater input	☐ other _____

5.5	12.5
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	☐ shrub/sapling removal
☐ grazing	☐ herbaceous/aquatic bed removal
☐ clearcutting	☐ sedimentation
☐ selective cutting	☐ dredging
☐ woody debris removal	☐ farming
☐ toxic pollutants	☐ nutrient enrichment

12.5
subtotal this page

Site: W-BS-1-4	Rater(s): Alice Burney, Anthony Glenn	Date: 04/15/26
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12.5

subtotal first page

0	12.5
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	10.5
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.

- ☐ 0 Vegetated hummocks/tussocks
- ☐ 0 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
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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

10.5

End of Quantitative Rating. Complete Categorization Worksheets.

Wetland BS-5-1

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/14/2026

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)

Field ID:

Wetland BS-5-1

0.02 acres

5

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), shrubland, 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)

11.0

17.0

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 one.

- ☐ >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

- | | |
|---|---|
| ☐ ditch | ☐ point source (nonstormwater) |
| ☐ tile | ☐ filling/grading |
| ☐ dike | ☐ road bed/RR track |
| ☐ weir | ☐ dredging |
| ☐ stormwater input | ☐ Other: |

7

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

- | | |
|---|---|
| ☒ mowing | ☐ shrub/sapling removal |
| ☐ grazing | ☐ herbaceous/aquatic bed removal |
| ☐ clearcutting | ☐ sedimentation |
| ☐ selective cutting | ☐ dredging |
| ☐ woody debris removal | ☐ farming |
| ☐ toxic pollutants | ☐ nutrient enrichment |

24

subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating

Wetland BS-5-1

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/14/2026

Field Id:

Wetland BS-5-1

24

subtotal this 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 5 Qualitative Rating (-10)

2

26

max 20pts.

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)
☒ x Low (1)
☐ None (0)

6c. Coverage of invasive plants. Refer

Table 1 ORAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
☐ Moderate 25-75% cover (-3)
☒ x Sparse 5-25% cover (-1)
☐ Nearly absent <5% cover (0)
☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ 1 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 1 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 2 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 3 vegetation and is of high quality

Narrative Description of Vegetation Quality

Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species

Native spp are dominant component of the vegetation, mod 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 to

A predominance of native species, with nonnative spp high 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

Category 1

26 GRAND TOTAL(max 100 pts)

Wetland BS-5-2

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/14/2026

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)

0.05 acres

5

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), shrubland, 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)

11.0

17.0

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 one.

- ☐ >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

- | | |
|---|---|
| ☐ ditch | ☐ point source (nonstormwater) |
| ☐ tile | ☐ filling/grading |
| ☐ dike | ☐ road bed/RR track |
| ☐ weir | ☐ dredging |
| ☐ stormwater input | ☐ Other: |

7

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

- | | |
|---|---|
| ☒ mowing | ☐ shrub/sapling removal |
| ☐ grazing | ☐ herbaceous/aquatic bed removal |
| ☐ clearcutting | ☐ sedimentation |
| ☐ selective cutting | ☐ dredging |
| ☐ woody debris removal | ☐ farming |
| ☐ toxic pollutants | ☐ nutrient enrichment |

24

subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating

Wetland BS-5-2

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/14/2026

Field Id:

Wetland BS-5-2

24

subtotal this 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 5 Qualitative Rating (-10)

2

26

max 20pts.

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)
- ☒ x Low (1)
- ☐ None (0)

6c. Coverage of invasive plants. Refer

Table 1 ORAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☒ x Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ 1 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 1 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 2 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 3 vegetation and is of high quality

Narrative Description of Vegetation Quality

Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species

Native spp are dominant component of the vegetation, mod 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 to

A predominance of native species, with nonnative spp high 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

Category 1

26 GRAND TOTAL(max 100 pts)

Wetland BS-5-3

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/14/2026

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)

Field ID:

Wetland BS-5-3

0.03 acres

9

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), shrubland, 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)

16.0

26.0

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 one.

- ☐ >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

- | | |
|---|---|
| ☐ ditch | ☐ point source (nonstormwater) |
| ☐ tile | ☐ filling/grading |
| ☐ dike | ☐ road bed/RR track |
| ☐ weir | ☐ dredging |
| ☐ stormwater input | ☐ Other: |

13

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.

- ☐ None or none apparent (9)
☒ Recovered (6)
☐ Recovering (3)
☐ Recent or no recovery (1)

Check all disturbances observed

- | | |
|---|---|
| ☐ mowing | ☐ shrub/sapling removal |
| ☐ grazing | ☐ herbaceous/aquatic bed removal |
| ☐ clearcutting | ☐ sedimentation |
| ☐ selective cutting | ☐ dredging |
| ☐ woody debris removal | ☐ farming |
| ☐ toxic pollutants | ☐ nutrient enrichment |

39

subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating

Wetland BS-5-3

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/14/2026

Field Id:

Wetland BS-5-3

39

subtotal this page

0

39

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 5 Qualitative Rating (-10)

3

42

max 20pts.

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)
- ☒ x Moderately low (2)
- ☐ Low (1)
- ☐ None (0)

6c. Coverage of invasive plants. Refer

Table 1 ORAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☒ x Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ 1 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 1 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 2 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 3 vegetation and is of high quality

Narrative Description of Vegetation Quality

Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species

Native spp are dominant component of the vegetation, mod 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 to

A predominance of native species, with nonnative spp high 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

42 GRAND TOTAL(max 100 pts)

Wetland BS-5-4

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/14/2026

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)

Field ID:

Wetland BS-5-4

0.09 acres

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), shrubland, 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)

18.0 30.0

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 one.

- ☐ >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

- | | |
|---|---|
| ☐ ditch | ☐ point source (nonstormwater) |
| ☐ tile | ☒ filling/grading |
| ☐ dike | ☐ road bed/RR track |
| ☐ weir | ☐ dredging |
| ☐ stormwater input | ☐ Other: |

13 43

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 | ☐ shrub/sapling removal |
| ☐ grazing | ☐ herbaceous/aquatic bed removal |
| ☒ clearcutting | ☒ sedimentation |
| ☒ selective cutting | ☐ dredging |
| ☐ woody debris removal | ☒ farming |
| ☐ toxic pollutants | ☐ nutrient enrichment |

43

subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating

Wetland BS-5-4

Site: Baku Station	Rater(s): P. Renner; M. Behnke	Date: 4/14/2026
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Field Id:

Wetland BS-5-4

43

subtotal this page

0

43

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 5 Qualitative Rating (-10)

1

44

max 20pts.

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)
- ☒ x None (0)

6c. Coverage of invasive plants. Refer

Table 1 ORAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☒ x Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☒ 1 Vegetated hummocks/tussocks
- ☐ 0 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 1 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 2 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 3 vegetation and is of high quality

Narrative Description of Vegetation Quality

Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species

Native spp are dominant component of the vegetation, mod 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 to

A predominance of native species, with nonnative spp high 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

Category 2

44 GRAND TOTAL(max 100 pts)

Wetland BS-5-5

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/15/2026

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)

Field ID:

Wetland BS-5-5

0.02 acres

2 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), shrubland, 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)

10.0 12.0

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 one.

- ☐ >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

- | | |
|---|---|
| ☐ ditch | ☐ point source (nonstormwater) |
| ☐ tile | ☐ filling/grading |
| ☐ dike | ☐ road bed/RR track |
| ☐ weir | ☐ dredging |
| ☐ stormwater input | ☒ Other: |

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

- | | |
|--|---|
| ☐ mowing | ☐ shrub/sapling removal |
| ☐ grazing | ☐ herbaceous/aquatic bed removal |
| ☒ clearcutting | ☐ sedimentation |
| ☐ selective cutting | ☐ dredging |
| ☐ woody debris removal | ☐ farming |
| ☐ toxic pollutants | ☐ nutrient enrichment |

20

subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating

Wetland BS-5-5

Site: Baku Station	Rater(s): P. Renner; M. Behnke	Date: 4/15/2026
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Field Id:

Wetland BS-5-5

20

subtotal this 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 5 Qualitative Rating (-10)

2

22

max 20pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ 1 Emergent
- ☐ Shrub
- ☐ 0 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

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
- ☐ 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 1 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 2 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 3 vegetation and is of high quality

Narrative Description of Vegetation Quality

Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species

Native spp are dominant component of the vegetation, mod 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 to

A predominance of native species, with nonnative spp high 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

Category 1

22

GRAND TOTAL(max 100 pts)

Wetland BS-5-6

Site: Baku Station Rater(s): P. Renner; M. Behnke Date: 4/15/2026

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)

Field ID:

Wetland BS-5-6

0.11 acres

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), shrubland, 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)

13.0 17.0

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 one.

- ☐ >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

- ☐ ditch
☐ tile
☐ dike
☐ weir
☐ stormwater input
☐ point source (nonstormwater)
☐ filling/grading
☐ road bed/RR track
☐ dredging
☐ Other:

13 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

- ☐ mowing
☐ grazing
☐ clearcutting
☐ selective cutting
☐ woody debris removal
☐ toxic pollutants
☐ shrub/sapling removal
☐ herbaceous/aquatic bed removal
☐ sedimentation
☐ dredging
☐ farming
☐ nutrient enrichment

30

subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating

Wetland BS-5-6

Site: Baku Station

Rater(s): P. Renner; M. Behnke

Date:

4/15/2026

Field Id:

Wetland BS-5-6

30

subtotal this 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 5 Qualitative Rating (-10)

3

33

max 20pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☐ Emergent
- ☐ Shrub
- ☒ 1 Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high(4)
- ☐ Moderate (3)
- ☒ x Moderately low (2)
- ☐ Low (1)
- ☐ None (0)

6c. Coverage of invasive plants. Refer

Table 1 ORAM long form for list. Add or deduct points for coverage

- ☐ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☒ x 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
- ☒ 1 Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

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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

Category 2

33 GRAND TOTAL(max 100 pts)



ID: W-BS-1-1 Date: 4/14/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-1-1 Date: 4/14/2026 Direction: E Class: PEM Position: Wetland Overview



ID: W-BS-1-1 Date: 4/14/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-1-1 Date: 4/14/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-1-1 Date: 4/14/2026 Direction: S Class: PEM Position: Wetland Pit



ID: W-BS-1-2 Date: 4/14/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-1-2 Date: 4/14/2026 Direction: E Class: PEM Position: Wetland Overview



ID: W-BS-1-2 Date: 4/14/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-1-2 Date: 4/14/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-1-2 Date: 4/14/2026 Direction: W Class: PEM Position: Wetland Pit



ID: W-BS-1-3 Date: 4/15/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-1-3 Date: 4/15/2026 Direction: E Class: PEM Position: Wetland Overview

W - Photo Log



ID: W-BS-1-3 Date: 4/15/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-1-3 Date: 4/15/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-1-3 Date: 4/15/2026 Direction: S Class: PEM Position: Wetland Pit



ID: W-BS-1-4 Date: 4/15/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-1-4 Date: 4/15/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-1-4 Date: 4/15/2026 Direction: E Class: PEM Position: Wetland Overview



ID: W-BS-1-4 Date: 4/15/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-1-4 Date: 4/15/2026 Direction: S Class: PEM Position: Wetland Pit



ID: W-BS-5-1 Date: 4/14/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-5-1 Date: 4/14/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-5-1 Date: 4/14/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-5-1 Date: 4/14/2026 Direction: N/A Class: PEM Position: Wetland Pit



ID: W-BS-5-1 Date: 4/14/2026 Direction: E Class: PEM Position: Upland Overview



ID: W-BS-5-2 Date: 4/14/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-5-2 Date: 4/14/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-5-2 Date: 4/14/2026 Direction: E Class: PEM Position: Wetland Overview



ID: W-BS-5-2 Date: 4/14/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-5-2 Date: 4/14/2026 Direction: N/A Class: PEM Position: Wetland Pit



ID: W-BS-5-3 Date: 4/14/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-5-3 Date: 4/14/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-5-3 Date: 4/14/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-5-3 Date: 4/14/2026 Direction: E Class: PEM Position: Wetland Overview



ID: W-BS-5-3 Date: 4/14/2026 Direction: N/A Class: PEM Position: Wetland Pit



ID: W-BS-5-4 Date: 4/14/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-5-4 Date: 4/14/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-5-4 Date: 4/14/2026 Direction: E Class: PEM Position: Wetland Overview



ID: W-BS-5-4 Date: 4/14/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-5-4 Date: 4/14/2026 Direction: N/A Class: PEM Position: Wetland Pit



ID: W-BS-5-5 Date: 4/15/2026 Direction: S Class: PEM Position: Wetland Overview



ID: W-BS-5-5 Date: 4/15/2026 Direction: E Class: PEM Position: Wetland Overview



ID: W-BS-5-5 Date: 4/15/2026 Direction: N Class: PEM Position: Wetland Overview



ID: W-BS-5-5 Date: 4/15/2026 Direction: W Class: PEM Position: Wetland Overview



ID: W-BS-5-5 Date: 4/15/2026 Direction: N/A Class: PEM Position: Wetland Pit



ID: W-BS-5-6 Date: 4/15/2026 Direction: N Class: PFO Position: Wetland Overview



ID: W-BS-5-6 Date: 4/15/2026 Direction: W Class: PFO Position: Wetland Overview



ID: W-BS-5-6 Date: 4/15/2026 Direction: E Class: PFO Position: Wetland Overview



ID: W-BS-5-6 Date: 4/15/2026 Direction: S Class: PFO Position: Wetland Overview



ID: W-BS-5-6 Date: 4/15/2026 Direction: E Class: PFO Position: Wetland Pit

APPENDIX

C OHIO EPA STREAM FORMS AND PHOTOGRAPHS

*Stream photographs were collected at the locations of the stream data points as shown in Figure 3, Appendix A.



Primary Headwater Habitat Evaluation Form

71**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-1**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.25**LENGTH OF STREAM REACH (ft) **100** LAT. **38.992172** LONG. **-83.018199** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **A glenn** COMMENTS **Intermittent Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	20%
☐ BOULDER (>256 mm) [16 pts]	5%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	0%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☒ COBBLE (65-256 mm) [12 pts]	30%	☐ CLAY or HARDPAN [0 pt]	0%
☒ GRAVEL (2-64 mm) [9 pts]	25%	☐ MUCK [0 pts]	0%
☐ SAND (<2 mm) [6 pts]	20%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **35****(A)**Substrate Percentage Check **100%****(B)**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **21**TOTAL NUMBER OF SUBSTRATE TYPES: **5****HHEI Metric Points**

Substrate Max = 40

26**A + B**

2. **Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☒ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

25COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **20**

3. **BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☒ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

20COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☐	☒	Wide >10m
☒	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☐	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☒	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 60

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.8 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

24

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-2**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.22**LENGTH OF STREAM REACH (ft) **100** LAT. **38.991747** LONG. **-83.013623** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **A glenn** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☒ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	30%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	5%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	5%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	20%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	40%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **5**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40**14**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **4**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**5**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 10

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.7 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

18

SITE NAME/LOCATION **Baku Station**

SITE NUMBER **S-BS-1-3**

RIVER BASIN **Lower Scioto**

DRAINAGE AREA (mi²) **0.06**

LENGTH OF STREAM REACH (ft) **100**

LAT. **38.991188**

LONG. **-83.008125**

RIVER CODE _____ RIVER MILE _____

DATE **04/14/2026**

SCORER **A glenn**

COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS:

☒ NONE / NATURAL CHANNEL

☐ RECOVERED

☐ RECOVERING

☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	40%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	0%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	10%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	40%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0**

(A)

Substrate Percentage Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**

TOTAL NUMBER OF SUBSTRATE TYPES: **4**

HHEI Metric Points

Substrate Max = 40

13

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☒ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

0

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **0**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check ONLY one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

5

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 15

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

49

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-4b**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.1**LENGTH OF STREAM REACH (ft) **100** LAT. **38.988182** LONG. **-83.014784** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **A glenn** COMMENTS **Intermittent Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☒ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	35%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	5%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	20%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	30%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **5**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40**14**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):

☐ > 30 centimeters [20 pts]	☒ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**15**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **10**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check ONLY one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☒ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**20**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 15

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.7 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

24**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-5**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.08**LENGTH OF STREAM REACH (ft) **100**LAT. **38.987329**LONG. **-83.018286**

RIVER CODE _____ RIVER MILE _____

DATE **04/14/2026**SCORER **A glenn**COMMENTS **Ephemeral Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☐ NONE / NATURAL CHANNEL☐ RECOVERED☒ RECOVERING☐ RECENT OR NO RECOVERY

- 1. SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	30%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	5%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	10%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	20%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	35%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **10****(A)**Substrate Percentage Check **100%****(B)**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5****HHEI Metric Points**

Substrate Max = 40

14

A + B

- 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

5COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **3**

- 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

5COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☐	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☒	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 90

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.8 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

34

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-6**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.21**LENGTH OF STREAM REACH (ft) **100** LAT. **38.986098** LONG. **-83.021975** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **A glenn** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	30%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	5%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	5%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	20%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	40%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **5**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40**14**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☒ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**15**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **8**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**5**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☐	☐	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☒	☒	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☐	☐	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☒	☒	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 80

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.7 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

24

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-7**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.07**LENGTH OF STREAM REACH (ft) **100** LAT. **38.990903** LONG. **-83.01755** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **A glenn** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☒ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	30%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	10%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	15%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	40%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **10**

(A)

Substrate Percentage
Check **105%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40**14**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **5**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**5**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **0.5**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☐	☐	Wide >10m
☒	☒	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☐	☐	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☒	☒	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): _____

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 6.5 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

50

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-1-8** RIVER BASIN **Lower Scioto** DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100** LAT. **38.983826** LONG. **-83.02008** RIVER CODE _____ RIVER MILE _____DATE **04/15/2026** SCORER **A glenn** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☒ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	20%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	5%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	10%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	25%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	40%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **10**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **15**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40**20**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☒ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**15**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **10**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**15**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.5**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☐	☐	Wide >10m
☐	☐	Moderate 5-10m
☒	☒	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☐	☐	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☒	☒	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 04/11/2026 Quantity: 0.1in

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) 7.1 Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) Y Voucher? (Y/N) Y Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) Y Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

33**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-1**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.04**LENGTH OF STREAM REACH (ft) **100** LAT. **38.983588** LONG. **-83.009355** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

- 1. SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	60%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	0%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	10%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	10%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	20%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **10****(A)**Substrate Percentage Check **100%****(B)**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **4****HHEI Metric Points**

Substrate Max = 40

13

A + B

- 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

5COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **2**

- 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

15COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.2****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

39

SITE NAME/LOCATION **Baku Station**

SITE NUMBER **S-BS-5-2**

RIVER BASIN **Lower Scioto**

DRAINAGE AREA (mi²) **0.05**

LENGTH OF STREAM REACH (ft) **100**

LAT. **38.984044**

LONG. **-83.010824**

RIVER CODE

RIVER MILE

DATE **04/14/2026**

SCORER **Mark Behnke**

COMMENTS **Intermittent Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS:

☐ NONE / NATURAL CHANNEL

☐ RECOVERED

☒ RECOVERING

☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☐ SILT [3 pt]	30%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	10%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	20%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	30%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **10**

(A)

Substrate Percentage Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**

TOTAL NUMBER OF SUBSTRATE TYPES: **5**

HHEI Metric Points

Substrate Max = 40

14

A + B

Pool Depth Max = 30

5

Bankfull Width Max=30

20

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **5**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☒ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

38**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-3**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.05**LENGTH OF STREAM REACH (ft) **100** LAT. **38.984167** LONG. **-83.011078** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	50%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	20%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	0%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	10%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	20%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0****(A)**Substrate Percentage Check **100%****(B)**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **4****HHEI Metric Points**

Substrate Max = 40

13**A + B**

2. **Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

5COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **3**

3. **BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☒ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

20COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☐	Wide >10m
☐	☒	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☐	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☒	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

22

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-4**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100** LAT. **38.983852** LONG. **-83.011469** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	60%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	0%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	0%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	30%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **0**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **3**HHEI
Metric
PointsSubstrate
Max = 40**12**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **2**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check ONLY one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**5**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☐	☒	Wide >10m
☐	☐	Moderate 5-10m
☒	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☐	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☒	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

32

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-5**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100** LAT. **38.982074** LONG. **-83.011828** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	70%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	0%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	0%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	20%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **0**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **3**HHEI
Metric
PointsSubstrate
Max = 40**12**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **2**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check ONLY one box):

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**15**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.2**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 25

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

32

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-6**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100** LAT. **38.981866** LONG. **-83.01178** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL☒ RECOVERED☐ RECOVERING☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	70%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	0%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	0%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	20%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **0**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **3**HHEI
Metric
PointsSubstrate
Max = 40**12**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **3**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**15**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.2**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

22

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-7a**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100**LAT. **38.984112**LONG. **-83.014512**

RIVER CODE _____ RIVER MILE _____

DATE **04/14/2026**SCORER **Mark Behnke**COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL☒ RECOVERED☐ RECOVERING☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	60%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	0%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	0%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	30%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **0**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **3**HHEI
Metric
PointsSubstrate
Max = 40**12**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **3**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**5**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☐	Wide >10m
☐	☒	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 30

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

54

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-7b**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.03**LENGTH OF STREAM REACH (ft) **100** LAT. **38.98348** LONG. **-83.017449** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Intermittent Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	50%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	5%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	5%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	30%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock

5

(A)

Substrate Percentage
Check

100%

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:

9

TOTAL NUMBER OF SUBSTRATE TYPES:

5

HHEI
Metric
PointsSubstrate
Max = 40

14

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☒ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30

25

COMMENTS

MAXIMUM POOL DEPTH (centimeters):

12

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30

15

COMMENTS

AVERAGE BANKFULL WIDTH (meters):

1.5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☐	Wide >10m
☐	☒	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 30

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

34

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-8**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100** LAT. **38.983093** LONG. **-83.017446** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	50%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	5%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	5%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	0%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	30%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **10**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5**HHEI
Metric
PointsSubstrate
Max = 40**14**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **5**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**15**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.5**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 35

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

35**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-9**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100** LAT. **38.982871** LONG. **-83.017834** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Intermittent Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

- 1. SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	2%	☒ SILT [3 pt]	45%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	0%
☐ BEDROCK [16 pt]	3%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	15%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	5%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	30%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **20****(A)**Substrate Percentage Check **100%****(B)**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **6****HHEI Metric Points**

Substrate Max = 40

15

A + B

- 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

5COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **4**

- 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

15COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.5****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

29**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-10**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100** LAT. **38.9836** LONG. **-83.01805** RIVER CODE _____ RIVER MILE _____DATE **04/14/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☒ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	40%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	20%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	5%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	25%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **20****(A)**Substrate Percentage Check **100%****(B)**SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **5****HHEI Metric Points**

Substrate Max = 40

14

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☒ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

0COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **0**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

15COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.2****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 20

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

44**HHEI Score (sum of metrics 1, 2, 3) :**SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-11**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.01**LENGTH OF STREAM REACH (ft) **100**LAT. **38.980236**LONG. **-83.017916**

RIVER CODE _____ RIVER MILE _____

DATE **04/15/2026**SCORER **Mark Behnke**COMMENTS **Intermittent Stream****NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions****STREAM CHANNEL MODIFICATIONS:**☐ NONE / NATURAL CHANNEL☒ RECOVERED☐ RECOVERING☐ RECENT OR NO RECOVERY

- 1. SUBSTRATE (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	50%
☐ BOULDER (>256 mm) [16 pts]	0%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	5%
☐ BEDROCK [16 pt]	0%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	10%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	10%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	25%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **10****(A)**Substrate Percentage Check **100%****(B)****SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES:****9****TOTAL NUMBER OF SUBSTRATE TYPES:****5****HHEI Metric Points**

Substrate Max = 40

14**A + B**

- 2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box):**

☐ > 30 centimeters [20 pts]	☒ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☐ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth Max = 30

15COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **6**

- 3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):**

☐ > 4.0 meters (> 13') [30 pts]	☒ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull Width Max=30

15COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1.2****This information must also be completed****RIPARIAN ZONE AND FLOODPLAIN QUALITY**

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____
County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: 0.04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 30

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





Primary Headwater Habitat Evaluation Form

26

HHEI Score (sum of metrics 1, 2, 3) :

SITE NAME/LOCATION **Baku Station**SITE NUMBER **S-BS-5-12**RIVER BASIN **Lower Scioto**DRAINAGE AREA (mi²) **0.02**LENGTH OF STREAM REACH (ft) **100** LAT. **38.980845** LONG. **-83.018519** RIVER CODE _____ RIVER MILE _____DATE **04/15/2026** SCORER **Mark Behnke** COMMENTS **Ephemeral Stream**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PWH Streams" for Instructions

STREAM CHANNEL
MODIFICATIONS:☐ NONE / NATURAL CHANNEL ☒ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. **SUBSTRATE** (Estimate percent of every type of substrate 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
☐ BLDR SLABS [16 pts]	0%	☒ SILT [3 pt]	50%
☐ BOULDER (>256 mm) [16 pts]	3%	☐ LEAF PACK/WOODY DEBRIS [3 pts]	10%
☐ BEDROCK [16 pt]	2%	☐ FINE DETRITUS [3 pts]	0%
☐ COBBLE (65-256 mm) [12 pts]	5%	☐ CLAY or HARDPAN [0 pt]	0%
☐ GRAVEL (2-64 mm) [9 pts]	5%	☐ MUCK [0 pts]	0%
☒ SAND (<2 mm) [6 pts]	25%	☐ ARTIFICIAL [3 pts]	0%

Total of Percentages of
Bldr Slabs, Boulder, Cobble, Bedrock **10**

(A)

Substrate Percentage
Check **100%**

(B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9**TOTAL NUMBER OF SUBSTRATE TYPES: **7**HHEI
Metric
PointsSubstrate
Max = 40**16**

A + B

2. **Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐ > 30 centimeters [20 pts]	☐ > 5 cm - 10 cm [15 pts]
☐ > 22.5 - 30 cm [30 pts]	☒ < 5 cm [5 pts]
☐ > 10 - 22.5 cm [25 pts]	☐ NO WATER OR MOIST CHANNEL [0 pts]

Pool Depth
Max = 30**5**COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **3**

3. **BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

☐ > 4.0 meters (> 13') [30 pts]	☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☒ ≤ 1.0 m (≤ 3' 3") [5 pts]
☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

Bankfull
Width
Max=30**5**COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **1**

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY

☆NOTE: River Left (L) and Right (R) as looking downstream ☆

RIPARIAN WIDTH

L	R	(Per Bank)
☒	☒	Wide >10m
☐	☐	Moderate 5-10m
☐	☐	Narrow <5m
☐	☐	None

COMMENTS _____

FLOODPLAIN QUALITY

L	R	(Most Predominant per Bank)
☐	☐	Mature Forest, Wetland
☒	☒	Immature Forest, Shrub or Old Field
☐	☐	Residential, Park, New Field
☐	☐	Fenced Pasture

L	R	
☐	☐	Conservation Tillage
☐	☐	Urban or Industrial
☐	☐	Open Pasture, Row Crop
☐	☐	Mining or Construction

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: _____ Distance from Evaluated Stream _____
☐ 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: Wakefield NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Pike Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: 04/11/2026 Quantity: .04

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 25

Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) Y If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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





ID: S-BS-1-1 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-1-1 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-1-1 Date: 4/14/2026 Direction: W Position: Across



ID: S-BS-1-2 Date: 4/14/2026 Direction: S Position: Upstream



ID: S-BS-1-2 Date: 4/14/2026 Direction: N Position: Downstream



ID: S-BS-1-2 Date: 4/14/2026 Direction: S Position: Across



ID: S-BS-1-3 Date: 4/14/2026 Direction: N Position: Upstream



ID: S-BS-1-3 Date: 4/14/2026 Direction: S Position: Downstream



ID: S-BS-1-3 Date: 4/14/2026 Direction: S Position: Across



ID: S-BS-1-4 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-1-4 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-1-4 Date: 4/14/2026 Direction: W Position: Across



ID: S-BS-1-5 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-1-5 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-1-5 Date: 4/14/2026 Direction: N Position: Across



ID: S-BS-1-6 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-1-6 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-1-6 Date: 4/14/2026 Direction: E Position: Across



ID: S-BS-1-7 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-1-7 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-1-7 Date: 4/14/2026 Direction: E Position: Across



ID: S-BS-1-8 Date: 4/15/2026 Direction: S Position: Upstream



ID: S-BS-1-8 Date: 4/15/2026 Direction: W Position: Downstream



ID: S-BS-1-8 Date: 4/15/2026 Direction: W Position: Across



ID: S-BS-5-1 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-5-1 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-5-1 Date: 4/14/2026 Direction: S Position: Across



ID: S-BS-5-2 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-5-2 Date: 4/14/2026 Direction: W Position: Downstream



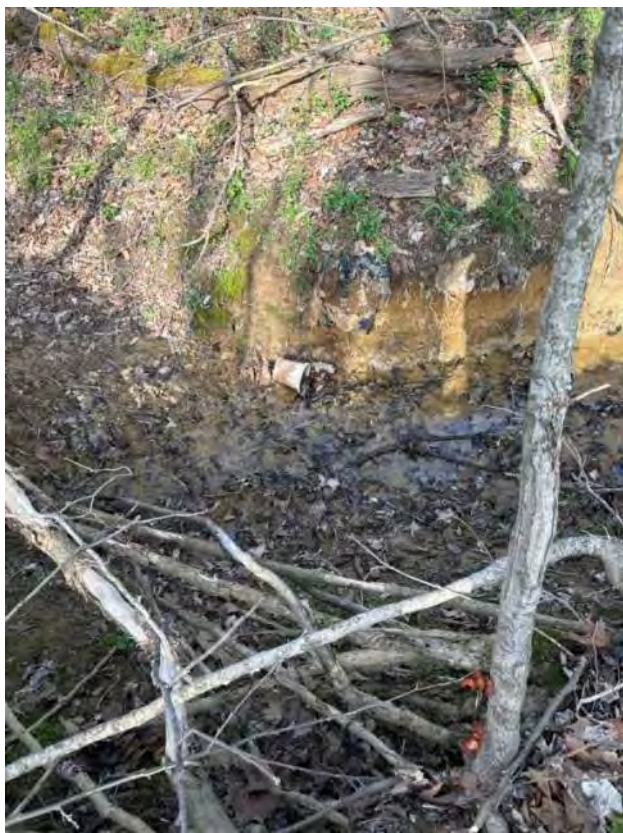
ID: S-BS-5-2 Date: 4/14/2026 Direction: S Position: Across



ID: S-BS-5-3 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-5-3 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-5-3 Date: 4/14/2026 Direction: N Position: Across



ID: S-BS-5-4 Date: 4/14/2026 Direction: W Position: Upstream



ID: S-BS-5-4 Date: 4/14/2026 Direction: E Position: Downstream



ID: S-BS-5-4 Date: 4/14/2026 Direction: S Position: Across



ID: S-BS-5-5 Date: 4/14/2026 Direction: W Position: Upstream



ID: S-BS-5-5 Date: 4/14/2026 Direction: E Position: Downstream



ID: S-BS-5-5 Date: 4/14/2026 Direction: N Position: Across



ID: S-BS-5-6 Date: 4/14/2026 Direction: SW Position: Upstream



ID: S-BS-5-6 Date: 4/14/2026 Direction: NE Position: Downstream



ID: S-BS-5-6 Date: 4/14/2026 Direction: S Position: Across



ID: S-BS-5-7b Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-5-7b Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-5-7b Date: 4/14/2026 Direction: E Position: Across



ID: S-BS-5-8 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-5-8 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-5-8 Date: 4/14/2026 Direction: N Position: Across



ID: S-BS-5-9 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-5-9 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-5-9 Date: 4/14/2026 Direction: S Position: Across



ID: S-BS-5-10 Date: 4/14/2026 Direction: E Position: Upstream



ID: S-BS-5-10 Date: 4/14/2026 Direction: W Position: Downstream



ID: S-BS-5-10 Date: 4/14/2026 Direction: N Position: Across



ID: S-BS-5-11 Date: 4/15/2026 Direction: E Position: Upstream



ID: S-BS-5-11 Date: 4/15/2026 Direction: W Position: Downstream



ID: S-BS-5-11 Date: 4/15/2026 Direction: N Position: Across



ID: S-BS-5-12 Date: 4/15/2026 Direction: E Position: Upstream



ID: S-BS-5-12 Date: 4/15/2026 Direction: W Position: Downstream



ID: S-BS-5-12 Date: 4/15/2026 Direction: N Position: Across

APPENDIX

D REPRESENTATIVE PHOTOGRAPHS

Photo Log



ID:N/A Date:4/15/2026 Direction:E Type:Old field habitat



ID:N/A Date:4/15/2026 Direction:N Type:Old field habitat



ID:N/A Date:4/15/2026 Direction:S Type:Hardwood woodland



ID:N/A Date:4/15/2026 Direction:E Type:Hardwood woodland

Photo Log



ID:N/A Date:4/15/2026 Direction:N Type:Developed, Open Space



ID:N/A Date:4/15/2026 Direction:S Type:Developed, Open Space

Photo Log



ID:N/A Date:4/15/2026 Direction:S Type:Hayfield/pasture



ID:N/A Date:4/15/2026 Direction:W Type:Scrub-shrub habitat



ID:N/A Date:4/15/2026 Direction:SE Type:Scrub-shrub habitat



ID:P-2 Date:4/14/2026 Direction:W Type:Pond 2

Photo Log



ID:P-BS-1-1 Date:4/14/2026 Direction:N/A Type:N/A



ID:P-BS-1-3 Date:4/15/2026 Direction:N/A Type:Pond-3

APPENDIX

E AGENCY COORDINATION



**Department of
Natural Resources**
ohiodnr.gov

Mike DeWine, Governor
Jim Tressel, Lt. Governor
Mary Mertz, Director

Office of Real Estate & Land Management

Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

May 15, 2026

Anthony Glenn
WSP USA Inc.
312 Elm Street #2500
Cincinnati, Ohio 45202

Re: 26-0656_Baku Station

Project: The proposed project involves the construction of an electrical substation.

Location: The proposed project is located in Scioto Township, Pike County, Ohio.

Center Coordinates: (38.9857, -83.0149)

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 within one mile of the project area:

Blue Sucker (*Cyprinus elongatus*), T
Fawnsfoot (*Truncilla donaciformis*), SC
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. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

Location records for the species listed above are provided in a shapefile attachment to this letter. Species location information will not be disclosed, published, or distributed beyond the scope of your

project. 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 project is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree clearing is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree clearing inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, 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 endangered 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 bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in clusters of dead leaves on tree limbs. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree and/or tree limb clearing 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 a Diameter Breast Height (DBH) $\geq 20''$ if possible.

For every project, the DOW also recommends that a winter bat habitat assessment is conducted to determine if potential hibernacula are present within the project area. This is to limit possible disturbances that seasonal tree clearing and/or subsurface work (e.g., trenching, blasting, etc.) may cause to hibernating bats. Potential hibernacula include rocky outcroppings, caves, and underground mines. Direction on how to conduct winter habitat assessments can be found in the joint guidance [OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE \(OH-FIELD OFFICE\) JOINT GUIDANCE FOR BAT SURVEYS](#). If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile permanent tree clearing buffer around the hibernaculum entrance. Limited summer or winter tree clearing may be acceptable after consultation with the DOW. If a habitat assessment for projects involving subsurface disturbance finds that a potential hibernaculum is present within 5 miles of the project area, please consult with Eileen Wyza for project recommendations. If no tree clearing 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*)

Northern riffleshell (*Epioblasma torulosa rangiana*)

rayed bean (*Villosa fabalis*)

State Endangered

Ohio pigtoe (*Pleurobema cordatum*)
washboard (*Megaloniais nervosa*)
yellow sandshell (*Lampsilis teres*)

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

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

State Endangered

bigeye shiner (*Notropis boops*)
goldeye (*Hiodon alosoides*),
popeye shiner (*Notropis ariommus*),
shoal chub (*Macrhybopsis hyostoma*),
shortnose gar (*Lepisosteus platostomus*),
shovelnose sturgeon (*Scaphirhynchus platyrhynchus*),

State Threatened

blue sucker (*Cycleptus elongatus*),
channel darter (*Percina copelandi*),
paddlefish (*Polyodon spathula*)
river darter (*Percina shumardi*),

The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the timber rattlesnake (*Crotalus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species. In addition to using wooded areas, the timber rattlesnake also utilizes sunlit gaps in the canopy for basking and deep rock crevices known as den sites for overwintering. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the midland mud salamander (*Pseudotriton montanus diastictus*), a state threatened species. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern harvest mouse (*Reithrodontomys humulis*), a state threatened species. This species relies on early successional habitats dominated by herbaceous vegetation with less than 30% woody material. The DOW recommends that early successional habitats be preserved where possible. If early successional habitats won't be impacted, this project is not likely to impact this species.

Due to the potential for 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.

Geological Survey: The Division of Geological Survey has the following comments.

Impacts on Public and Private Water Supplies

The proposed project area is in Scioto Township in Pike County. The construction of this project is not expected to have significant impacts on public or private well yields. The Groundwater Vulnerability Index ranges from 103-189, which equates to a moderate to high groundwater vulnerability (OEPA, 2014). The construction of the facility is not expected to pose a significant groundwater contamination risk.

Groundwater Inventory

Groundwater resources are limited throughout the project area. Wells developed in bedrock are likely to yield 3 to 250 gallons per minute. Much of the project area has a yield of 3-10gpm. A small sliver in the western edge of the project area has an expected yield up to 100gpm, and another section in the western fourth of the project area has an expected yield up to 250gpm (Potucek and Others, 2025).

ODNR has record of 55 water wells drilled within one mile of the project area. These wells range in depth from 25 to 150 feet, with an average depth of 59 feet. Shale is listed as the primary aquifer on 23 of the wells. Sand and gravel is listed as the primary aquifer for 13 wells. The remaining wells are divided among several aquifers. Sustainable yields of 0 to 25 gallons per minute have been reported for 3 wells within one mile of the project area, with the average sustainable yield being 12 gallons per minute (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Water Wells).

Oil, Gas and Mining

ODNR has record of 10 oil and gas wells within one mile of the proposed project area. Most of these wells are listed as Plugged and Abandoned. 8 wells listed as plugged and abandoned. One well listed as permit expired. One well with unknown status (Ohio Department of Natural Resources, Division of Oil and Gas, Ohio Oil and Gas Wells Locator).

ODNR does not have record of any mining operations within the project area (Ohio Department of Natural Resources, Division of Mineral Resources, Mines of Ohio).

Geohazards

ODNR has record of several earthquakes recorded within 15-miles of the site. Details regarding these events are listed in the chart below:

Date	Magnitude	Distance to Site Boundary	County	Township
December 21,2014	2.0	4.74 miles	Pike	Union
March 20, 2019	2.1	9.88 miles	Scioto	Madison

Karst

Karst features usually form in areas that are covered by thin or no glacial drift and the bedrock is limestone or dolomite. The nearest verified sinkholes are 15 miles to the west of the project area. There are no sinkholes in the project area, and the underlying shale and sandstone makes formation of sinkholes unlikely. (Ohio Department of Natural Resources, Division of Geological Survey, Ohio Karst).

Drift Thickness and Bedrock Geology

The project area lies outside of the glacial margin of the state. The uppermost bedrock unit in the project area is the Logan and Cuyahoga Formations Undivided. This unit is Mississippian-age and consists of beds of brown to gray medium grained sandstone containing lenses and beds of coarse sand grains to fine-pebble conglomerates interbedded with clayey siltstone and shale. Beds may be intertongued and intergraded. rightmost edge of project area. Underlying the Logan and Cuyahoga Formations Undivided is the Devonian and/or Mississippian-age Sunbury Shale, Berea Sandstone, and Bedford Shale Undivided. This unit is characterized by gray to brown shale and interbedded sandstone. Gray shale is the dominate lithology. vast majority of project area. Underlying the 0 is the Devonian-age Ohio and Olentangy Shales Undivided. This unit is characterized by greenish gray to gray shale. The unit is clayey and often contains disseminated pyrite. Locally this unit may contain lenses or nodules of limestone as well as thin beds of brownish-black shale in the upper portion. leftmost edge of project area. Bedrock may be exposed in outcrops and roadcuts within the boundary of the project area (Slucher et al, 2006).

Soils

According to the USDA Web Soil Survey, the project area consists primarily of soils derived from loess over Illinoian till. Fox, Omulga, and Princeton are the most common soil series found within the boundaries of the project area. These soils have a silt and sand loam texture and together cover over 81% of the project area. The Princeton Soil which makes up approximately 42% of the project area is a non-hydric soil and is not ponded. (USDA Web Soil Survey). There is a low risk of shrink-swell potential in these soils. Slopes vary, with some exceeding 30% grade. Slopes are steepest in the center of the project area (Hendershot, 1990 and USDA Web Soil Survey).

Water Resources: The Division of Water Resources has not conducted a project specific review and/or comments, however, the guidance provided below should be reviewed by the Environmental Review applicant for applicability on this project and subsequent compliance.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer [website](#) can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

Ohio Revised Code (ORC) Section 1521.16 mandates that any owner of a property or a facility that has the capacity of withdrawing 100,000 gallons per day (gpd) of water from groundwater, surface water, or both must register with the Division of Water Resources' [Water Withdrawal Facilities Registration \(WWFR\) Program](#) and report their withdrawals annually.

Additional coordination may be required depending on the location of the withdrawal and consumptive use. Permitting may be required for:

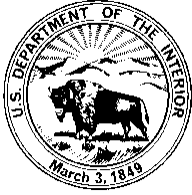
- New or increased consumptive use of water averaging 2 million gallons per day (mgd) within 30 days within the Ohio River basin.
- New or increased withdrawal and consumptive water use in the Lake Erie watershed averaging 1 million gallons per day (mgd) or more in 90 days.
- New or increased water withdrawal directly from Lake Erie averaging 2.5 million gallons per day (mgd) or more in 90 days.
- Diversion or movement of water across the Ohio River and Lake Erie basin divide.

If the project does not involve activities that are subject to water withdrawal regulatory requirements as described above, then no further action is required. For more information, visit the [Water Inventory & Planning website](#).

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

Expiration: ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.

United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994



June 1, 2026

Project Code: 2026-0073065

Dear Mr. Glenn:

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 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. Bridges and culverts have also been used as roosts. Additionally, northern long-eared bats have been observed roosting in other human-made structures, such as buildings, barns, 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.

Female Indiana bats and northern long-eared bats exhibit strong site fidelity to summer roosting and foraging areas, meaning that they return to the same area, and often the same trees, to roost year after year. Because the project will result in a large amount of forest clearing relative to the available habitat in the immediately surrounding area, habitat removal could result in significant impacts to Indiana bats and northern long-eared bats. Because of this, the proposed project may result in indirect adverse effects to Indiana bats and northern long-eared bats, even if tree clearing is conducted during the winter season when Indiana bats and northern long-eared bats are not present. Therefore, we recommend that a summer survey be conducted to determine presence or absence of Indiana bats and northern long-eared bats at the project site. The summer survey must be conducted in coordination with the Ohio Field Office.

Please note that the proposed project location is within the vicinity of one or more confirmed

northern long-eared bat records, but that record is ≥ 1.5 miles from the project. Therefore, a survey would constitute a presence/absence survey for the northern long-eared bat as well as the Indiana bat. If a summer survey documents probable absence of Indiana bats and northern long-eared bats at the project location, tree clearing on the project site at any time of the year is unlikely to result in adverse impacts to Indiana bats or northern long-eared bats. Negative Indiana bat and northern long-eared bat summer surveys are valid for five years.

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 also warranted. Portal surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office.

Survey results should be coordinated with this office prior to initiation of any work at the project area. Based on the results of the survey(s), we will evaluate potential impacts of the project on the Indiana bat and northern long-eared bat. If Indiana bats and northern long-eared bats are not detected during the survey, then the Service would not object to tree clearing at any time of the year.

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. The project area is within the vicinity of one or more confirmed tricolored bat records. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

On December 12, 2024 the Service proposed to list the monarch butterfly (*Danaus plexippus plexippus*) as threatened under the ESA. Monarch butterflies are found throughout Ohio and some populations migrate vast distances across multiple generations each year. Many monarchs fly between the U.S., Mexico and Canada – a journey of over 3,000 miles. Monarch populations have declined significantly in recent years. Threats include habitat loss – particularly the loss of milkweed, the monarch caterpillar's sole food source – and mortality resulting from pesticide use. The Service recommends the following actions to maintain habitat and avoid impacts to monarchs in Ohio: revegetate disturbed areas with native plant species including nectar-producing plants and milkweed endemic to the area; limit mowing monarch habitat from March 15 to August 31 when monarchs are breeding and from September 1 to October 31 when large numbers of monarchs are migrating; and avoid the use of pesticides and herbicides in and near monarch habitat.

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.

Bald Eagle: The project is in the range of the bald eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). We recommend that you visit <https://ohiodnr.gov/discover-and-learn/animals/birds/bald-eagle> to determine if the project is within 0.5 mile of a documented eagle nest. Additionally, because not all eagle nests in the state have been mapped, we recommend that an on-site examination be conducted to determine if any large stick nests are visible from project area. If the project is within 0.5 mile of a documented eagle nest or the on-site examination reveals the presence of a potential eagle nest, we recommend visiting <https://www.fws.gov/story/do-i-need-eagle-take-permit> to determine if an eagle take permit is required.

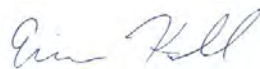
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing 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, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

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 "Erin Knoll".

Erin Knoll
Field Office Supervisor

cc: Matthew.Stooksbury@dnr.ohio.gov
Eileen.Wyza@dnr.ohio.gov

Attachment: USFWS Permittees for Bat Surveys in Ohio

**This foregoing document was electronically filed with the Public Utilities
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Case No(s). 26-0869-EL-BLN

Summary: Application LON, Baku Extension No. 1. electronically filed by Jared M
Klaus on behalf of AEP Ohio Transmission Company, Inc..