Letter of Notification for the Razzler 765/345 kV Station Project

An AEP Company

PUCO Case No. 26-0960-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.

October 15, 2026

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.

Razzler 765/345 kV Station 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 Razzler 765/345 kilovolt (kV) Station Project (the Project), located in Green Township, Scioto County, Ohio. The Project involves construction of a new approximately 61-acre 765/345 kV transmission substation to provide electricity to a customer's facility. The Project is located within a customer's development site, and the property needed for the station will be transferred from the customer to the Company. The Project will be served by a tap of the existing Hanging Rock–Jefferson 765 kV Transmission Line and will interconnect, with the customer-owned station via four new 345 kV tie lines, which will be submitted to the OPSB at a later date. **Map 1** and **Map 2** of **Appendix A** show the location of the Project.

The Project meets the requirements for a Letter of Notification (LON) as defined by Item 3 of Appendix A to Ohio Adm. Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

(3) Constructing a new electric power transmission substation.

The Project has been assigned Case No. 26-0960-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 customer has requested a new substation to serve their facility that will require an ultimate projected demand of approximately 1,000 megawatts. To meet the customer's needs, the Company will be required to construct a new 765 kV-to-345 kV step-down station, named Razzler Station. The Station will be supplied by cutting into and modifying the existing Hanging Rock–Jefferson 765 kV Transmission Line that will be filed under a different application.

Failure to move forward with the Project will result in the inability to serve the customer's new load requirements and the customer's future plans in the area.

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. *See* Revised Code 4906.06(A)(7). Under the plain text of House Bill 15, a summary of studies regarding advanced transmission technology is required for new transmission lines but is not required for stations. However, the Project does include installation of a static synchronous compensator (STATCOM) to dynamically regulate voltage and stabilize the power grid, which is a form of advanced transmission technology consistent with the legislative intent behind House Bill 15.

The need for the Razzler Project was presented and reviewed with stakeholders at the PJM Interconnection (PJM) Transmission Expansion Advisory Committee meeting on August 5, 2025. The Company anticipates a permanent solution will be submitted to PJM in Q3 2026. The Project was not identified at the time of the Company's 2026 Long-Term Forecast Report (LTFR) but is anticipated to be included in the Company's 2027 LTFR.

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 2025 aerial photograph.

B(4) Alternatives Considered

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

The Project area, which includes the 61-acre station and a 1.9-acre permanent access road, is located within the customer's proposed development site. The property needed for the station will be transferred from the customer to the Company. Based on the customer's proposed development and existing facilities in the area, the proposed location is the most suitable location for the Project. Other alternatives would require more significant impacts to neighboring properties, as opposed to remaining adjacent to the customer's planned development. In addition, the proposed station location minimizes the length of the new 765-kV line from the existing Hanging Rock–Jefferson Transmission Line, while also minimizing the required new 345-kV tie lines.

The Project is predominantly located on undeveloped land that was previously disturbed by the customer. The location of the Project minimizes impacts on the community and the environment, 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 Ohio 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 necessary for the construction, operation, or maintenance of the Project. The letter will comply with all requirements of Ohio Adm. Code Section 4906-6-08(B). The Company maintains a website (https://aeptransmission.com/ohio/filings.php), which 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 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 no sooner than January 5, 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 United States Geological Survey 1:24,000 Greenup quadrangle map. **Map 2** in **Appendix A** identifies the location of the Project area on a 2025 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 proposed Razzler 765\345 kV Station is located on property currently owned by the customer, which will be transferred to the Company prior to construction.

B(9) Technical Features

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

B(9)(a) Operating Characteristics, Estimated Number and Types of Structures Required, and Right-of-Way and/or Land Requirements.

The Project requires a 61-acre station and a 1.9-acre permanent access road. No right-of-way is required for the Project. The equipment and facilities to be installed for the Project are anticipated to include the following:

5 – 765kV 3Ø circuit breakers
1 – 765kV 300 megavolt-amperes reactive (MVAR) static var compensation (STATCOM) units
2 – 765/345kV 3Ø transformers*
1 – 765/345kV 1Ø transformer (switchable spare)*
1 – 765kV 3Ø line reactor
1 – 765kV 3Ø line reactor breaker
10 – 345kV 3Ø circuit breakers
2 – 34.5kV station service source bays
1 – 108' x 16' drop-in control module

*Subject to change to 7 – 765/345kV 1Ø Transformers, if necessary

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 $622 million using a Class 4 estimate. Approximately 40 percent of the total costs will be recovered through reimbursement from the customer. Pursuant to the PJM Open Access Transmission

Tariff (OATT), the remaining costs for this Project will be recovered in AEP's Federal Energy Regulatory Commission formula rate (Attachment H-20 to the PJM OATT) and allocated to the AEP zone.

B(10) Social and Economic 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 is located in Green Township, Scioto County, Ohio, between the Ohio River and U.S. Highway 52. Land use in the Project area is agricultural land and vacant agricultural land, as classified by data acquired for Scioto County. The Project is located within an area of Scioto County that is currently undergoing industrial development. No schools, parks, places of worship, cemeteries, wildlife management areas, or nature preserve lands were identified 1,000 feet of 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.

No agricultural easements designated by the Ohio Department of Agriculture are in the Project Area. The Company's consultant initiated coordination with the Scioto County auditor's office to request information about agricultural district land in Green Township. Based on data received from Scioto County Auditor's office on August 26, 2026, there are no agricultural district parcels within the area of the Project.

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 as of the investigation, and a copy of any document produced as a result of the investigation.

The Company's consultant conducted a cultural resource survey and report for the Project in April 2026. Correspondence from the State Historic Preservation Office (SHPO) was received on May 28, 2026, for archaeological and architectural resources (see **Appendix B)**.

The Company's consultant identified six previously recorded archaeological sites within or partially within the Project area. Three architectural resources were located within the Project's Area of Potential Effects. None of the resources were recommended as eligible for listing on the National Register of Historic Places. The SHPO stated that that the Project will have no adverse effect on historic properties and that no further coordination is required, unless the Project changes or additional archaeological resources are discovered during the implementation of the Project in their correspondence.

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 anticipated permits and authorizations for the Project is provided in **Table 1** below. There are no other known local, state, or federal requirements that must be met prior to commencement of the Project.

Table 1 – Anticipated Permits

Permit/Authorization/Coordination	Agency	Date
Storm Water Pollution Prevention Plan	Ohio Environmental Protection Agency	September 2026
Drive Permit	Scioto County	Expected October 2026
Archaeology/Architectural	Ohio Historic Preservation Office	Coordination complete May 28, 2026; no additional work required
Threatened and Endangered Species	U.S. Fish and Wildlife Service	Coordination complete May 8, 2026
Threatened and Endangered Species	Ohio Department of Natural Resources	Coordination complete June 1, 2026

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) Ohio Natural Heritage Program and Division of Wildlife, seeking an environmental review of the Project for potential impacts to state and/or federally protected species. ODNR and USFWS provided responses on June 1, 2026, and May 8, 2026, respectively. Copies of the agencies' responses are presented in **Appendix B**.

Table 3 in **Appendix C** lists the federal and state threatened or endangered species in the Project area.

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

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 May 2026, the Company's consultant conducted wetland and stream delineation surveys for an approximately 125-acre survey area encompassing the Project (see **Appendix C**). The Company's consultant delineated 25 wetlands and five streams within the survey area; of which, nine wetlands are located within the Project's 61-acre station pad.

Disturbance to ecological features and tree clearing on the Project area will be completed by the customer prior to the Company's construction start date. Any necessary permits for the associated disturbance will be completed and filed by the customer.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (map number 39145C0527E) was reviewed to check for the presence of floodplains/flood hazard areas within the Project area. No mapped FEMA floodplains are located in the Project area.

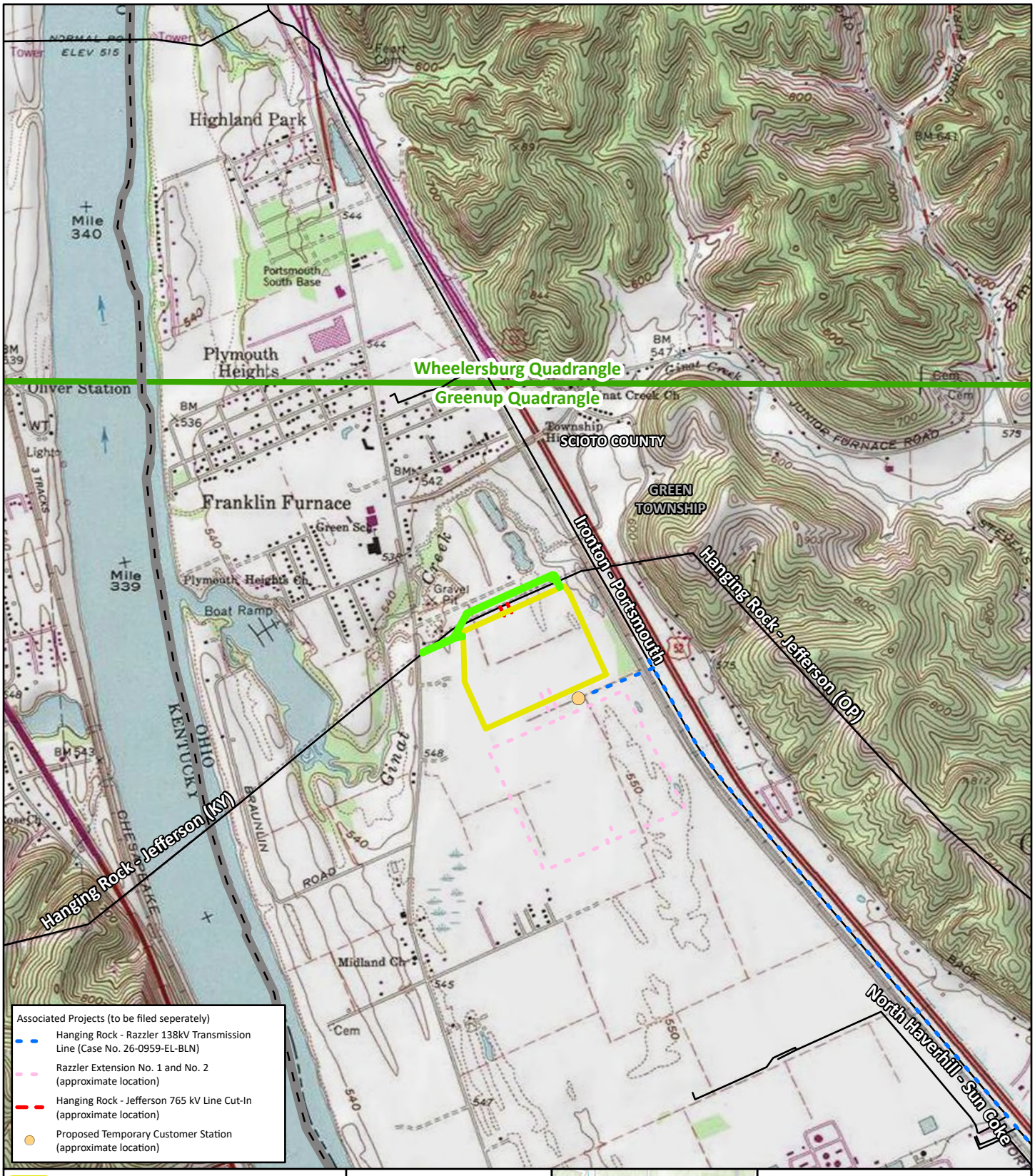
Based on a review of the Protected Areas Database of the United States as well as the National Conservation Easement Database, there are no state or national parks, forests, wildlife areas, or mapped conservation easements in the vicinity of the Project.

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



Proposed Razzler Station Pad

Proposed Permanent Access Drive

Existing Transmission Line

USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2021)

State Plane
Ohio South
NAD 83

October 5, 2026

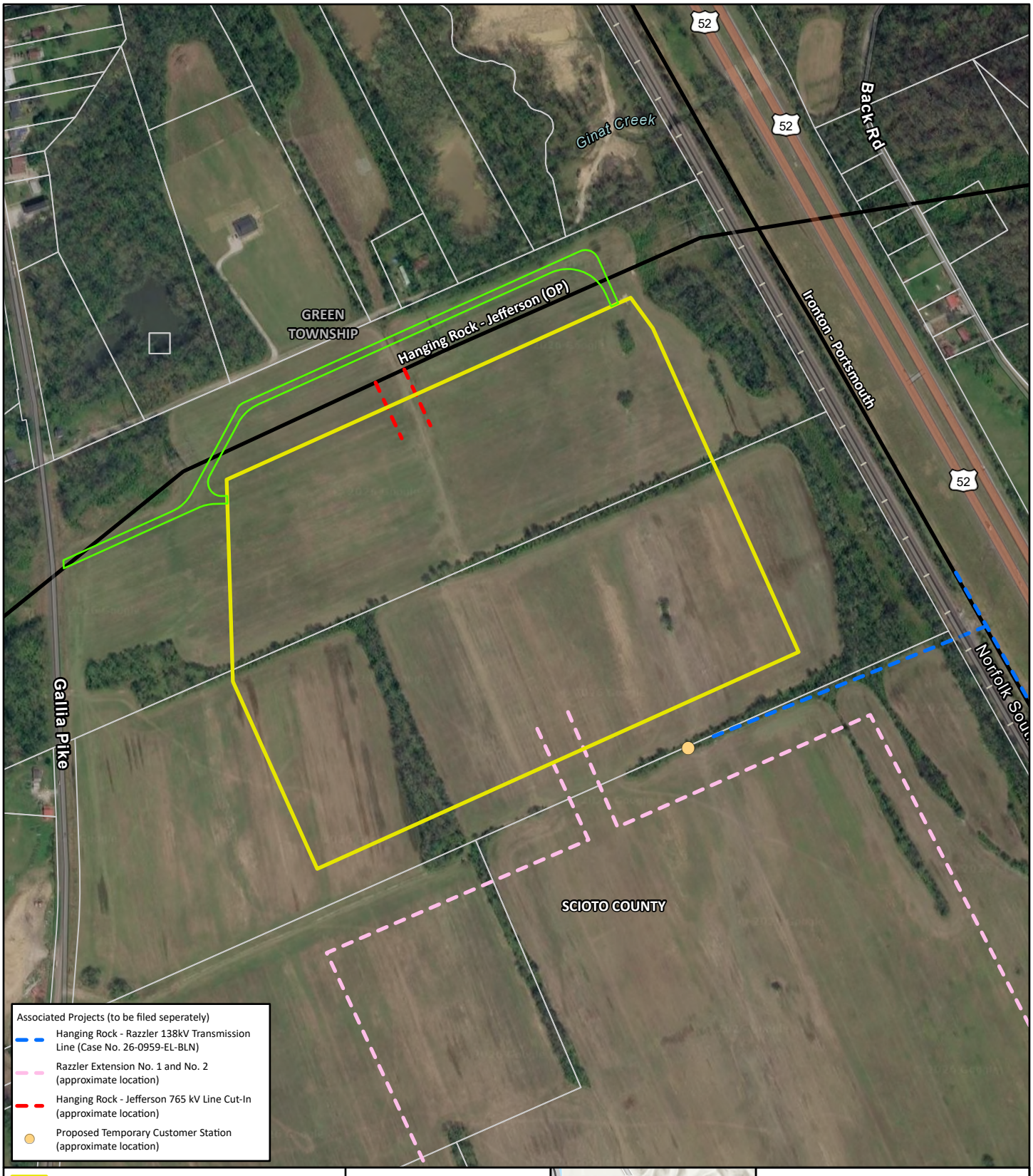
Map 1
Project Area

AEP TRANSMISSION

Razzler 765/345 kV Station Project

0 1,000 2,000

Feet

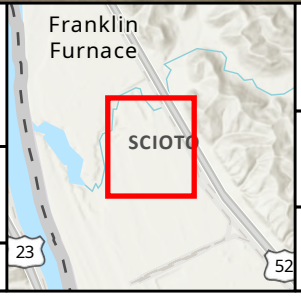


Proposed Razzler Station Pad
Permanent Access Drive
Existing Transmission Line
Parcel Boundary

Sources:
Google (2025)

State Plane
Ohio South
NAD 83

October 5, 2026



Map 2
Aerial Map

AEP TRANSMISSION
An AEP Company

Razzler 765/345 kV Station Project

0 250 500
Feet

Appendix B Agency Coordination Letters

In reply refer to:
2026-SCI-68257

May 28, 2026

Chad Porter
Weller & Associates, Inc.
1395 West 5th Ave.
Columbus, OH 43212
Email: c.porter@wellercrm.com

RE: **Section 106 Review: Hanging Rock-Razzler 138kV Transmission Line Project (Razzler Station), Scioto County, Ohio**

Dear Mr. Porter:

This letter is in response to the correspondence received on May 4, 2026, regarding the proposed Hanging Rock-Razzler 138kV Transmission Line Project (Razzler Station), Scioto County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board (OPSB) for siting this project (OAC 4906-4 & 4906-5). The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The following comments pertain to *A Cultural Resource Management Letter Report for the Proposed 21.2 ha (52.4 ac) Razzler Station Project in Green Township, Scioto County, Ohio* (Weller & Associates, May 2026). A literature review was completed for this project; the entirety of the project area has been the subject of previous professional surveys (Weinberger 2007; Weinberger 2008; Purtill et al. 2001). Six (6) archaeological sites (33SC0174, 33SC0176, 33SC0177, 33SC0178, 33SC0179, and 33SC0489) are either within or partially located within the project area. These sites have previously been determined as not significant or eligible for listing on the National Register of Historic Places (NRHP). The proposed work will not impact significant archaeological deposits. Weller recommended that no further archaeological work is necessary. Our office agrees with this determination.

In the above-mentioned report, three (3) architectural resources were located within the project's Area of Potential Effect (APE). None of the surveyed resources were recommended as eligible for listing on the (NRHP). The SHPO agrees with these findings.

Based on the information provided, our office agrees that the project, as proposed, will have no effect on historic properties. Therefore, no further coordination is required, unless the project changes or additional archaeological resources are discovered during the implementation of this project. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions regarding history/architecture, please contact Gabrielle Doty at gdoty@ohiohistory.org. If you have any questions concerning this review or archaeology, please contact Bridget Roddy via email at broddy@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Bridget C. Roddy

Bridget C. Roddy, Project Reviews Manager-Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1113896

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

May 8, 2026

Project Code: 2026-0081303

Dear Mr. Santiago:

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, endangered, and proposed 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: 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 this seasonal restriction on tree cutting and impacting suitable bridge/culvert roosts is not possible, a summer presence/absence survey may be conducted for Indiana bats and northern long-eared bats. 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. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

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. 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

June 1, 2026

Alexander Santiago
V3 Companies
550 Polaris Parkway, Suite 250
Westerville, Ohio 43082

Re: 26-0711_Razzler Station and Transmission Line

Project: The proposed project involves the construction of the Razzler Station and a 4.5-mile transmission line.

Location: The proposed project is located in Green Township of Scioto County and Hamilton Township of Lawrence County, Ohio.

Center Coordinates: (38.5955, -82.8123)

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

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

Round-fruited Hedge-hyssop (*Gratiola virginiana*), E
Short's Hedge-hyssop (*Gratiola viscidula*), T
Featherfoil (*Hottonia inflata*), E
Spotted Pondweed (*Potamogeton pulcher*), E
Low Spearwort (*Ranunculus pusillus*), T
Lance-leaved Violet (*Viola lanceolata*), P
Shoal chub (*Macrhybopsis hyostoma*), E
Channel Darter (*Percina copelandi*), T
River Darter (*Percina shumardi*), T
Eastern Spadefoot (*Scaphiopus holbrookii*), E
Threehorn Wartyback (*Obliquaria reflexa*), SC

Beech-sugar maple forest plant community
Floating-leaved marsh plant community
Mixed emergent marsh plant community
Submergent marsh plant community

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. Records for high quality plant communities indicate the presence of sites that are in our inventory of the best remaining examples of Ohio's pre-settlement ecosystems.

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.

Of the species and features listed above, Round-fruited Hedge-hyssop and Low Spearwort are recorded within the boundaries of the specified project area. Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally 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 species of bats 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. If trees are present within the project area, and trees must be cleared, 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) ≥ 20" if possible. If trees are present within the project area, and trees and/or tree limbs must be cleared during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any clearing. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE (OH-FIELD OFFICE) JOINT GUIDANCE FOR BAT SURVEYS. If state-listed bats are documented, DOW recommends tree clearing only occur from October 1 through March 31. However, limited summer tree clearing may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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 linked above. 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*)
purple cat's paw (*Epioblasma obliquata*)
fanshell (*Cyprogenia stegaria*)
rayed bean (*Villosa fabalis*)
northern riffleshell (*Epioblasma torulosa rangiana*)
sheepnose (*Plethobasus cyphyus*)
pink mucket (*Lampsilis abrupta*)
snuffbox (*Epioblasma triquetra*)

State Endangered
butterfly (*Ellipsaria lineolata*)
Ohio pigtoe (*Pleurobema cordatum*)
ebonyshell (*Reginaia ebena*)
pyramid pigtoe (*Pleurobema rubrum*)
elephant-ear (*Elliptio crassidens crassidens*)
sharp-ridged pocketbook (*Lampsilis ovate*)
little spectaclecase (*Villosa lienosa*)
wartyback (*Cyclonaias nodulata*)
long-solid (*Fusconaia subrotunda*)
washboard (*Megalonaias nervosa*)
monkeyface (*Theliderma metanevra*)
yellow sandshell (*Lampsilis teres*)

State Threatened
Salamander Mussel (*Simpsonaias ambigua*)

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*)
northern madtom (*Noturus stigmosus*)
gilt darter *(Percina evides)*
popeye shiner (*Notropis ariommus*)
goldeye (*Hiodon alosoides*)
shoal chub (*Macrhybopsis hyostoma*)
mountain madtom (*Noturus eleutherus*)
shortnose gar (*Lepisosteus platostomus*)
northern brook lamprey (*Ichthyomyzon fossor*)
shovelnose sturgeon (*Scaphirhynchus- platorynchus*)

State Threatened
American eel (*Anguilla rostrata*)
paddlefish (*Polyodon spathula*)
blue sucker (*Cycleptus elongatus*)
river darter (*Percina shumardi*)
channel darter (*Percina copelandi*)

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 eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, this project is not likely to impact this species.

The project is within the range of the timber rattlesnake (*Crotalus horridus 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 also 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 green salamander (*Aneides aeneus*), a state endangered amphibian. 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.

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.

Natural Areas and Preserves: The Division of Natural Areas and Preserves has the following Rare Plant comments.

One rare plant species, low spearwort (*Ranunculus pusillus,* state threatened), has been recorded within the footprint of the Razzler Station and Transmission Line project. Due to the possible disruption of this species, a pre-construction survey of the proposed project site, including all laydown areas, should be conducted to ensure that this plant and any other rare species within the proposed construction limits are avoided and not impacted. Long term protection of rare flora species should also be considered and should include limiting the use of herbicidal spraying in their vicinity. For survey coordination or further discussion, please contact the Division of Natural Areas and Preserves' Chief Botanist, Rick Gardner. Mr. Gardner can be contacted directly at richard.gardner@dnr.ohio.gov or (614) 265-6419.

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 C Ecological Report

Razzler Station and Transmission Line

Ecological Report

Project Site:

East of Gallia Pike & South of State Route 52
Franklin Furnace, Scioto and Lawrence Counties, Ohio

Prepared For:

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Prepared By:

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June 2026

Go beyond limits

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EXECUTIVE SUMMARY

V3 Companies, Ltd. (V3) performed a natural resource assessment (NRA) and wetland delineation associated with the installation of a new 345-kV substation and a temporary 69-kV transmission line designed for future 138-kV operation, located in Franklin Furnace, Scioto and Lawrence counties, Ohio (SITE) on April 29, 30 and May 5, 2026.

V3 reached the following conclusions based on review of available and reasonably ascertainable federal, state, and local resources, and a SITE inspection conducted on the date referenced above.

- Five streams were identified on-SITE: ST-1-INT, ST-2-INT, ST-3-INT, ST-4-INT and ST-5-INT. All five streams will likely be verified as federally jurisdictional "Waters of the U.S." subject to regulation by the U.S. Army Corps of Engineers (USACE) and the Ohio Environmental Protection Agency (OEPA).
- Twenty five wetlands were identified on-SITE: WL-A-PEM, WL-B-PEM, WL-C-PEM, WL-D-PEM, WL-E-PEM, WL-F-PEM, WL-G-PFO, WL-H-PEM, WL-H-PFO, WL-I-PEM, WL-J-PEM, WL-K-PFO, WL-L-PEM, WL-M-PEM, WL-N-PEM, WL-O-PEM, WL-P-PEM, WL-Q, WL-R-PEM, WL-S-PEM, WL-T-PEM, WL-U-PEM, WL-W-PEM, WL-X-PEM, WL-X-PEM, WL-Y-PEM. Wetlands WL-L-PEM, WL-M-PEM and WL-T-PEM appeared to exhibit a hydrologic connection to a federally jurisdictional "Water of the U.S.," and would likely be subject to regulation by the USACE and the OEPA. The remaining wetlands appeared to lack a hydrologic connection to a "Water of the U.S.," and would likely be considered isolated and subject to regulation by the OEPA.
- Thirty one non-regulated upland drainage features (swales and roadside stormwater drainage ditches) were identified on-SITE. These features appear consistent with the exclusions for ditches excavated wholly in and draining only dry land under 40 CFR 120.2(b)(3), and/or swales and erosional features under 40 CFR 120.2(b)(8). Accordingly, these features did not appear to qualify as aquatic features subject to regulation by the USACE or OEPA.

  An official species list obtained from the U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation (IPaC) web site indicated that the SITE is situated within the range of the Northern long-eared bat (*Myotis septentrionalis*, endangered), Indiana bat (*Myotis sodalis*, endangered), tricolored bat (*Perimyotis subflavus*, proposed endangered), fanshell (*Cyprogenia stegaria*, endangered), longsolid (*Fusconaia subrotunada*, threatened), pink mucket (*Lampsilis abrupta*, endangered), salamander mussel (*Simpsonaias ambigua*, proposed endangered), sheepnose mussel (*Plethobasus cyphyus*, endangered), snuffbox mussel (*Epioblasma triquerta*, endangered),monarch butterfly (*Danaus plexippus*, proposed threatened, small whorled pogonia (Isotria medeoloides, threatened) and Virginia spiraea(*Spiraea virginiana*, threatened). V3 observed potential roost trees on-SITE at the time of the SITE reconnaissance. The USFWS provided recommendations to avoid impacts to on-SITE streams and wetlands and to limit clearing of potential roost trees for federally listed bat species to the recommended seasonal window (October 1 through March 31). A desktop and field review indicated no suitable bat hibernacula within or near the SITE; therefore, impacts to hibernating bats are not anticipated. The UFWS also noted that the project is within the range of the bald eagle (*Haliaeetus leucocephalus*) and recommended review of available nest location data and field verification to determine whether the project is within 0.5 mile of a document next. A review of the ODNR bald eagle nest mapping resources indicated the nearest documented bald eagle nest near Pine Creek, approximately 7.5 miles north of the SITE. A filed review of the SITE and surrounding areas was also conducted during the visit, and no large stick nests or other indicators of bald eagle nesting were observed. Based on these findings, impacts to bald eagles are not anticipated.

- Correspondence with the Ohio Department of Natural Resources (ODNR) indicated records of 15 endangered, threatened, or rare (ETR) species or special features/areas within a one-mile radius of the SITE (**Table 3**). Two of these species, Round-fruited Hedge-hyssop and Low Spearwort have been recorded within the SITE boundary. Additionally, the ODNR Division of Fish and Wildlife stated that the SITE is within the range of 46 ETR species. The ODNR stated that the project is not likely to impact these species if habitat is not impacted, and gave recommendations to avoid and minimize impacts to these species, including prohibiting in-stream work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. The ODNR Division of Natural Areas and Preserves stated that one state threatened plant species, low spearwort, has been recorded within the SITE boundaries and recommended the pre-construction survey to be conducted.

Chapter 1 Introduction

This report has been prepared solely in accordance with an agreement between AEP Ohio Transmission Company, Inc. (“CLIENT”) and V3 Companies, Ltd (“V3”).

The services performed by V3 have been conducted in a manner consistent with the level of quality and skill generally exercised by members of its profession and consulting practices relating to this type of engagement.

This report is solely for the use of CLIENT and was prepared based upon an understanding of CLIENT’s specific objective(s) and based upon information obtained by V3 in furtherance of CLIENT’s specific objective(s). Any reliance of this report by third parties shall be at such third party's sole risk as this report may not contain, or be based upon, sufficient information for purposes of other parties, for their objectives, or for other uses. This report shall only be presented in full and may not be used to support any other objectives than those for CLIENT as set out in the report, except where written approval and consent are expressly provided by CLIENT and V3.

1.1 Introduction

The purpose of this investigation was to conduct an NRA and wetland delineation of the SITE to evaluate potential land development permitting requirements regarding natural resources. In this report, V3 provides a detailed description of the information reviewed and collected as part of the scope of work for this project. V3 summarizes the jurisdictional framework applicable to this project, provides a desktop review of relevant and publicly available documents, and details information collected during the SITE reconnaissance including a wetlands determination, an evaluation of the potential presence of other natural resources within the SITE boundary, and a discussion of endangered, threatened, and rare (ETR) species and habitat. The Conclusions section summarizes V3’s findings, addresses potential areas of concern and permitting, regulatory, and other relevant issues.

The SITE is approximately 4.5 miles of transmission line and associated station property and is located at East of Gallia Pike & South of State Route 52, Franklin Furnace, Scioto and Lawrence counties (**Figure 1**).

Chapter 2 Jurisdictional Resources

2.1 Wetlands

Wetlands offer a variety of functions and values that may include, but are not limited to, groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, and fish and wildlife habitat. Because of the perceived functions and values of wetlands, USACE developed the Wetlands Delineation Manual, (1987 Manual)[1] to identify wetlands.

Wetlands are defined in the 1987 Manual as, “Those areas that are inundated or saturated by surface or ground water 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.” The 1987 Manual outlines the protocol for distinguishing wetland areas from "upland" areas. Wetland areas are delineated according to three primary criteria: vegetation, soil, and hydrology. An area is determined to qualify as a wetland if it meets the following “general diagnostic environmental characteristics:”

- Hydrophytic vegetation
- Hydrology
- Hydric Soil

[1] USACE. Waterways Experiment Station. Wetlands Research Program. “Corps of Engineers Wetlands Delineation Manual.” Vicksburg, MS: Environmental Laboratory, 1987

Chapter 3 Desktop Review

V3 reviewed applicable, readily available, and accessible historical information for the potential presence of wetlands, "Waters of the U.S.," and other natural resources. The findings are presented below.

3.1 United States Geological Survey 7.5-Minute Quadrangle Map

A USGS 7.5-Minute Quadrangle map displays contour lines to portray the shape and elevation of the land surface. Quadrangle maps render the three-dimensional changes in elevation of the terrain on a two-dimensional surface. The maps usually portray both manmade and natural topographic features. Although they show lakes, rivers, various surface water drainage trends, vegetation, etc., they typically do not provide the level of detail needed for accurate evaluation of wetlands. However, the existence of these features may suggest the potential presence of wetlands.

The SITE is situated in the Greenup, Ohio USGS 7.5-Minute Quadrangle Map, in Section 4, 5, and 8, Township 1 North, Range 19 West. V3 evaluated the topography and concluded that the SITE elevation ranges from approximately 540 to 550 feet above mean sea level (AMSL). Eight aquatic features are mapped within the SITE area (**Figure 1**).

3.2 National Wetlands Inventory Map

National Wetlands Inventory (NWI) maps were developed to meet a USFWS mandate to map the wetland and deepwater habitats of the U.S. These maps were developed using high altitude aerial photographs and USGS Quadrangle maps as a topographic base. Indicators that exhibited pre-determined wetland characteristics, visible in the photographs, were identified according to a detailed classification system. The NWI map retains some of the detail of the Quadrangle map; however, it is used primarily for demonstration of wetland areas identified by the agency. The maps are accurate to a scale of 1:24,000. In general, the NWI information requires field verification.

NWI data is shown projected over the Greenup, Ohio, USGS 7.5-Minute Quadrangle Map in **Figure 2**. NWI data is shown projected over aerial imagery in Figure 2. Eight NWI features are mapped within the SITE area. NWI Description (Table 7). The presence of NWI features mapped partially or fully within the SITE area suggests the potential presence of wetlands or other regulated aquatic features on-SITE.

Table 1: NWI Classification Description

Symbol	Description	Count
PEM1A	Paulstrine, Emergent, Persistent, Temporary flooded	2
R5UBH	Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded	1
R4SBC	Riverine, Intermittent, Streambed, Seasonally Flooded	5

3.3 Flood Insurance Rate Map

The Federal Emergency Management Agency (FEMA) was developed in 1979 to reform disaster relief and recovery, civil defense, and to prepare and mitigate for natural hazards. The Mitigation Division of FEMA manages the National Flood Insurance Program which provides guidance on how to lessen the impact of disasters on communities through flood insurance, floodplain management, and flood hazard mapping. Proper floodplain management has the ability to minimize the extent of flooding and flood damage and improve stormwater quality

by reducing stormwater velocities and erosion. The one percent annual chance flood (100-year flood) boundary must be kept free of encroachment as the national standard for the program.

V3 reviewed digital National Flood Hazard Zone data for the SITE. No portion of the SITE is mapped within the 100-year floodway or a flood zone. (**Figure 2**).

3.4 United States Department of Agriculture Soil Survey

V3 reviewed the soils mapped on-SITE in the Natural Resource Conservation Service (NRCS) digital soil survey data for the SITE. This data is projected over aerial photography, illustrating distinct soil map unit boundaries, in **Figure 3**. Eleven soil units are classified on-SITE.

Table 2: Soil Units On-SITE

Soil Map Unit	Description	Hydric within Lawrence County
EkB	Elkinsville silt loam, 1 to 6 percent slopes	No
SaB	Sciotoville silt loam, 1 to 6 percent slopes	No
SbB	Shelocta silt loam, 2 to 6 percent slopes	No
ScB	Sciotoville silt loam, 1 to 8 percent slopes	No
WeA	Weinbach silt loam, 0 to 2 percent slopes	No
Soil Map Unit	**Description**	**Hydric within Scioto County**
EkB	Elkinsvile silt loam, 1 to 8 percent slopes	No
Pe	Peoga silt loam, rarely flooded	Yes
SacB	Sciotoville silt loam, 1 to 8 percent slopes	No
To	Tioga loam, occcasioanlly flooded	No
WeA	Weinbach silt loam, 0 to 3 percent slopes	No
WmB	Wheeling silt loam, 3 to 8 percent slopes	No

One hydric soil unit is situated within the SITE. Peoga silt loam, rarely flooded (Pe) is considered hydric within Scioto County, Ohio. Soils are considered hydric if more than 50 percent of the soil contains hydric components according to the NRCS Web Soil Survey. The presence of hydric soil units within the SITE area suggests appropriate wetland soils are located on-SITE.

3.5 Endangered, Threatened, and Rare Species Evaluation

An official species list obtained from the USFWS IPaC website indicated that the SITE is within the ranges of the following federally endangered species: Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), fanshell (*Cyprogenia stegaria*), pink mucket (*Lampsilis abrupta*), and sheepnose (*Plethobasus cyphyus*), the threatened longsolid (*Fusconaia subrotunda*), small whorled pogonia (*Isotria medeoloides*), and Virginia spiraea (*Spiraea virginiana*); the following proposed endangered species: tricolored bat (*Perimyotis subflavus*) and salamander mussel (*Simpsonaias ambigua*); and the proposed threatened monarch butterfly (*Danaus plexippus*). The USFWS made recommendations to avoid impacts to on-SITE streams and wetlands, and to avoid clearing potential roost trees for the federally listed bat species. The USFWS stated that if tree clearing cannot be avoided, then seasonal clearing shall be done to avoid adverse effects to the Indiana bats and the northern long-eared bats. See **Table 3** for the recommended tree clearing dates. The USFWS stated that due to the

project type, size, and location, the agency does not anticipate adverse effects to any other federally endangered, threatened, or proposed species or proposed or designated critical habitat.

A review of the Ohio Natural Heritage Database with the ODNR indicates records of 15 ETR species, special features, or areas within a one-mile radius of the SITE area. Additionally, the ODNR Division of Fish and Wildlife stated that the SITE is situated within the range of various other ETR species. The ODNR stated that due to the potential for impacts to federally listed and state listed species, the project should be coordinated with the USFWS (**Table 3**).

ODNR recommended a desktop habitat assessment followed by a field assessment, if needed, to identify if potential bat hibernacula are present within the Project area. V3 completed a desktop assessment including data on known abandoned or active mines and locations known or suspected of karst geology. The desktop assessment identified no karst features or mine openings within 0.25 mile of the SITE. Further, no suitable bat hibernacula were observed during the field reconnaissance.

ODNR correspondence indicated that the state endangered round-fruited hedge-hyssop (*Gratiola virginiana*) and state threatened low spearwort (*Ranunculus pusillus*) have been recorded within the SITE area. Due to the possible disruption of these species, a pre-construction survey of the proposed project SITE is recommended to ensure that these and any other rare plants within the proposed construction limits are avoided and not impacted. ODNR also recommended considerations for long term protection of rare flora species, including limiting the use of herbicidal spraying in their vicinity. For survey coordination or further discussion, contact the Division of Natural Areas and Preserves' Chief Botanist, Rick Gardner, richard.gardner@dnr.ohio.gov or (614) 265-6419.

Based on the documentation referenced above, additional correspondence with the agencies does not appear to be warranted at this time. If federal permitting or federal financing will be used in future development, additional coordination may be necessary. Copies of agency correspondence can be referenced in **Appendix A**.

Table 3: ETR Species Identified in Agency Correspondence

Scientific Name	Common Name	State Listed Status	Federally Listed Status	Typical Habitat Description	Habitat Observed In Survey Area	Avoidance Dates	Agency Comment (Appendix A)	Potential Impacts
Mussels								
Cyprogenia stegaria	Fanshell	Endangered	Endangered	Perennial streams	No	N/A	ODNR - Proposed project not likely to impact this species.	No
Cyclonaias nodulata	Wartyback	Endangered	N/A	Perennial streams	No	N/A		No
Ellipsaria lineolata	Butterfly	Endangered	N/A	Perennial streams	No	N/A		No
Elliptio crassidens crassidens	Elephant-ear	Endangered	N/A	Perennial streams	No	N/A		No
Epioblasma torulosa rangiana	Northern riffleshell	N/A	Endangered	Perennial streams	No	N/A		No
Epioblasma triquetra	Snuffbox	Endangered	Endangered	Perennial streams	No	N/A		No
Fuscionaia subrotunda	Long-solid	Endangered	N/A	Perennial streams	No	N/A		No
Lampsilis abrupta	Pink mucket	Endangered	Endangered	Perennial streams	No	N/A		No
Lampsilis ovata	Sharp-ridged pocketbook	Endangered	N/A	Perennial streams	No	N/A		No
Lampsilis teres	Yellow sandshell	Endangered	N/A	Perennial streams	No	N/A		No
Megalonaias nervosa	Washboard	Endangered	N/A	Perennial streams	No	N/A		No
Obliquaria reflexa	Threehorn wartyback	Species of Concern	N/A	Perennial streams	No	N/A		No
Plethobasus cyphyus	Sheepnose	Endangered	Endangered	Perennial streams	No	N/A		No
Pleurobema cordatum	Ohio pigtoe	Endangered	N/A	Perennial streams		N/A		No
Pleurobema clava	Clubshell	Endangered	Endangered	Perennial streams	No	N/A		No
Pleurobema rubrum	Pyramid pigtoe	Endangered	N/A	Perennial streams	No	N/A		No
Reginaia ebena	Ebonyshell	Endangered	N/A	Perennial streams	No	N/A		No

Simpsonaias ambigua	Salamander mussel	Threatened	N/A	Perennial streams	No	N/A		No
Villosa fabalis	Rayed bean	Endangered	Endangered	Perennial streams	No	N/A		No
Villosa lienosa	Little spectaclecase	Endangered	N/A	Perennial streams	No	N/A		No

Fishes								
Anguilla rostrata	American eel	Threatened	N/A	Perennial streams	No	15 March to 30 June	ODNR - Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.	No
Cycleptus elongatus	Blue sucker	Threatened	N/A	Perennial streams	No			No
Hiodon alosoides	Goldeye	Endangered	N/A	Perennial streams	No			No
Ichthyomyzon fossor	Northern brook lamprey	Endangered	N/A	Perennial streams	No			No
Lepisosteus platostomus	Shortnose gar	Endangered	N/A	Perennial streams	No			No
Macrhybopsis hyostoma	Shoal chub	Endangered	N/A	Perennial streams	No			No
Notropis ariommus	Popeye shiner	Endangered	N/A	Perennial streams	No			No
Notropis boops	Bigeye shiner	Endangered	N/A	Perennial streams	No			No
Noturus eleutherus	Mountain madtom	Endangered	N/A	Perennial streams	No			No
Noturus stigmosus	Northern madtom	Endangered	N/A	Perennial streams	No			No
Percina copelandi	Channel darter	Threatened	N/A	Perennial streams	No			No
Percina evides	Gilt darter	Endangered	N/A	Perennial streams	No			No
Percina shumardi	River darter	Threatened	N/A	Perennial streams	No			No
Polyodon spathula	Paddlefish	Threatened	N/A	Perennial streams	No			No
Scaphirhynchus platorynchus	Shovelnose sturgeon	Endangered	N/A	Perennial streams	No			No

Amphibians								
Aneides aeneus	Green salamander	Endangered	N/A	ODNR – No comment	No	N/A	ODNR – 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.	No
Cryptobranchus alleganiensis alleganiensis	Eastern hellbender	Endangered	Species of Concern	Perennial streams featuring large, flat rocks	No	N/A	ODNR - Due to the location, this project is not likely to impact this species.	No
Pseudotriton montanus diastictus	Midland mud salamander	Threatened	N/A	ODNR – No comment	No	N/A	ODNR – 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.	No
Scaphiopus holbrookii	Eastern spadefoot toad	Endangered	N/A	Areas of sandy soils associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions	No	N/A	ODNR – 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.	No

Reptiles								
Crotalus horridus horridus	Timber rattlesnake	Endangered	Species of Concern	Woodland species, utilizing dry slopes and rocky outcrops. In addition to using wooded areas, the timber rattlesnake utilizes sunlit gaps in the canopy for basking and deep rock crevices for overwintering	No	N/A	ODNR – 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.	No

Mammals								
Myotis lucifugus	Little brown bat	Endangered	N/A	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 the leaves. However, these species are also dependent on the forest structure surrounding roost trees	Yes	1 April to 30 September	ODNR/USFWS - Cutting of trees is recommended between 1 October and 31 March. If seasonal tree cutting is not possible, a mist net survey or acoustic survey may be conducted by an approved surveyor between 1 June and 15 August. ODNR - If a habitat assessment finds that potential hibernacula are present within five miles of the project area, please consult with Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the Division of Wildlife (DOW) recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.	No - Impacts are avoided with winter tree clearing. If winter tree clearing is not feasible, presence/ absence surveys may be needed.
Myotis septentrionalis	Northern long-eared bat	Endangered	Threatened		Yes			
Myotis sodalis	Indiana bat	Endangered	Endangered		Yes			
Perimyotis subflavus	Tricolored bat	Endangered	N/A		Yes			

Plants								
Hottonia inflata	Featherfoil	Endangered	N/A	Swamps, ponds, very slow moving streams, bayous, sloughs, sinkhole ponds, beaver ponds.[2]	Yes	N/A	ODNR – Due to the possible disruption of low spearwort, a pre-construction survey of the proposed project site, including all laydown areas, should be conducted to ensure that this species and any other rare species within the proposed construction limits are avoided and not impacted. ODNR also recommended considerations for long-term protection of rare flora species, including limiting use of herbicidal spraying in their vicinity. For survey coordination or further discussion, contact the Division of Natural Areas and Preserves' Chief Botanist, Rick Gardner, at Richard.gardner@dnr.ohio.gov or at (614) 265-6419.	No – Impacts are avoided with plant survey and avoidance measures
Potamogeton pulcher	Spotted pondweed	Endangered	N/A	Peaty or muddy acid waters or shores[3]	No	N/A		
Gratiola viscidula	Short's Hedge-hyssop	Threatened	N/A	Bogs, wet meadows, floodplain wetlands, beaver ponds, stream banks, seeps, shores of ponds and lakes	Yes	N/A		
Gratiola virginiana	Round-fruited Hedge-hyssop	Endangered	N/A	Stream banks, floodplain pools and ponds, swamps[4]	Yes	N/A		
Ranunculus pusillus	Low spearwort	Threatened	N/A	Low wet ground, swamps, and shallow pools[5]	Yes	N/A		
Viola lanceolata	Lance-leaved violet	Potentially threatened	N/A	Open, moist sandy areas in pastures, meadows, and prairie remnants; margins of bog ponds; usually in acidic substrates.[6]	Yes	N/A		

V3 has not conducted plant survey as of the date of this report.

[2] Hill, Steven R. Conservation Assessment for the American Featherfoil (Hottonia inflata Ell.). INHS Technical Report 2007 (34). Champaign, IL: Illinois Natural History Survey, June 8, 2007.

[3] Ohio Department of Natural Resources. "Spotted Pondweed." Ohio Department of Natural Resources. Accessed June 9, 2026. https://ohiodnr.gov/discover-and-learn/plants-trees/flowering-plants/spotted-pondweed.

[4] Flora of North America. Gratiola virginiana. Accessed August 2024 Gratiola virginiana - FNA (floranorthamerica.org)

[5] Ohio Department of Natural Resources. "Low Spearwort." Ohio Department of Natural Resources. Accessed June 9, 2026. https://ohiodnr.gov/discover-and-learn/plants-trees/flowering-plants/low-spearwort

[6] Ohio Department of Natural Resources. "Lance-leaved Violet." Ohio Department of Natural Resources. Accessed June 9, 2026. https://ohiodnr.gov/discover-and-learn/plants-trees/flowering-plants/lance-leaved-violet.

Chapter 4 Site Reconnaissance

4.1 Methodology

V3 conducted a field investigation at the SITE on 29 and 30 April and 5 May 2026. During this investigation, V3 noted the presumed land use of the SITE and surrounding area and evaluated the SITE for the potential presence of wetlands, "Waters of the U.S.," and natural resources using the findings of the desktop review and field observations. Photographs were taken during the field investigation and are provided in **Appendix B**.

V3 used the Routine Determination Method (RDM) with an established baseline and transects as described in the 1987 Manual for typical sites over five acres. V3 recorded data from a number of data points (DP) along the transect as a function of diversity of vegetation, property size, soil types, habitat variability, and other SITE features as deemed appropriate by V3. Where evidence of a wetland was suspected, three wetland criteria were applied to determine if the area in question was representative of a wetland using the methodology set forth by USACE. More specifically, V3 visually examined and recorded the dominant vegetation, recorded soil properties such as texture and color using the Munsell Soil Color Chart (Munsell Color Chart), excavated soil pits, and evaluated the primary and secondary indicators of hydrology as discussed in **Section 2.1.1**.

If all three criteria were met, i.e., vegetation, soil properties, and indicators of hydrology, a second DP was established adjacent to the wetland DP in an area outside of the presumed wetland boundary for the purpose of delineating between the wetland and non-wetland areas. Once delineated, V3 continued the RDM to evaluate the remainder of the SITE.

4.2 Site and Adjacent Property Land Use

The SITE is approximately 125 acres and includes approximately 54 acres of agricultural land and woodlots, along with approximately 4.5 miles of proposed transmission line within a 100-foot-wide corridor between US 52 and the Norfolk Southern Railroad in Scioto and Lawrence Counties, Ohio. Adjacent land use consists of residentials, agricultural, industrial properties and woodland.

4.3 Wetland Summary

Twenty-five wetlands were identified during this investigation based upon the methodology set forth in the 1987 Manual. Information that V3 collected at each DP on 29 and 30 April and 5 May 2026 is described in the following section. This information is summarized on the forms provided in **Appendix C**. An overall SITE delineation map showing placement of the DPs is included as **Figure 7**.

4.3.1 WL-A-PEM – (0.76-acre PEM on-SITE)

WL-A-PEM is located in the southwest portion of the proposed station property and consists of 0.76 acres of palustrine, emergent (PEM) wetland. WL-A-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP A1

This DP was collected in the southern portion of WL-A-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (*Alopecurus carolinianus*, FACW, 30%) and low spearwort (*Ranunculus pusillus*, OBL, 20%). The soil profile met the Redox Depressions (F8) indicator for hydric soil. Evidence of wetland hydrology observed included the FAC-neutral test (D5), algal mat or crust (B4), crayfish burrows (C8), and geomorphic position (D2)

DP A2

This DP was collected in the upland area adjacent to DP A1. This area did not meet any wetland criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Carolina geranium (*Geranium carolinianum*, UPL, 40%) and hairy buttercup (*Ranunculus sardous*, FAC, 25%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP A3

This DP was collected in the northern portion of WL-A-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common rush (*Juncus pylaei*, OBL, 35%), low spearwort (OBL, 25%), and tufted meadow-foxtail (FACW, 15%). The soil profile met the Redox depressions (F8) indicator for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2), crayfish burrows (C8), and the FAC-neutral test (D5).

DP A4

This DP was collected in the upland area adjacent to DP A3. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of hairy buttercup (FAC, 40%) and slender wild rye (*Hordeum pusillum*, FAC, 35%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.2 WL-B-PEM – (0.27-acre PEM on-SITE, Continues south off-SITE)

WL-B-PEM is located in the western portion of the proposed station property and consists of 0.27 acres of PEM wetland. WL-B-PEM appears to continue south of the study area. WL-B-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP B1

This DP was collected in the northern portion of WL-B-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 40%) and low spearwort (OBL, 15%). The soil profile met the redox dark surface (F6) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5).

DP B2

This DP was collected in the upland area adjacent to DP B1. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 40%), hairy buttercup (FAC, 35%), and soybean residue (*Glycine max residue*, UPL, 20%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP B3

This DP was collected in the southern portion of WL-B-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 75%). The

soil profile met the redox depressions (F8) indicator for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5).

DP B4

This DP was collected in the upland area adjacent to DP B3. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of hairy Buttercup (FAC, 50%), Japanese bristle grass (FAC, 30%), and soybean residue (UPL, 20%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.3 WL-C-PEM – (0.07-acre PEM on-SITE)

WL-C-PEM is located in the central portion of the proposed station property and consists of 0.07 acres of PEM wetland. WL-C-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP C1

This DP was collected in the northern portion of WL-C-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 70%). The soil profile met the depleted matrix (F3), redox depressions (F8), and coast prairie redox (A16) indicators for hydric soil. Evidence of wetland hydrology observed included the, water-stained leaves (B9), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5).

DP C2

This DP was collected in the upland area adjacent to DP C1. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Japanese bristle grass (FAC, 40%) and small-flower buttercup (*Ranunculus parviflorus*, FAC, 40%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.4 WL-D-PEM – (0.63-acre PEM on-SITE)

WL-D-PEM is located in the southeastern portion of the proposed station property and consists of 0.63 acres of PEM wetland. WL-D-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP D1

This DP was collected in the northern portion of WL-D-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 70%). The soil profile met the depleted matrix (F3), redox depressions (F8), and coast prairie redox (A16) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), crayfish burrows (C8), geomorphic position (D2), and the FAC-neutral test (D5).

DP D2

This DP was collected in the upland area adjacent to DP D1. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not

qualify as a wetland. The dominant vegetation for each stratum present consisted of garlic mustard (*Mummenhoffia alliacea*, UPL, 40%), little barley (FAC, 15%), and Carolina geranium (UPL, 15%). The soil profile met the depleted matrix (F3), redox depressions (F8), and coast prairie redox (A16) indicators for hydric soil. No indicators of wetland hydrology were observed.

DP D3

This DP was collected in the southern portion of WL-D-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of field meadow-foxtail (FACW, 70%). The soil profile met the depleted matrix (F3), redox depressions (F8), and coast prairie redox (A16) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2), water-stained leaves (B9), and the FAC-neutral test (D5).

DP D4

This DP was collected in the upland area adjacent to DP D3. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of beaked corn salad (*Valerianella radiata*, FAC, 70%) and hairy buttercup (FAC, 25%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.5 WL-E-PEM – (0.43-acre PEM on-SITE)

WL-E-PEM was situated in the southeastern portion of the proposed station property and consists of 0.43 acres of PEM wetland. WL-E-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP E1

This DP was collected in the southern portion of WL-E-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 75%). The soil profile met the depleted matrix (F3), redox depressions (F8), and coast prairie redox (A16) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5).

DP E2

This DP was collected in the upland area adjacent to DP E2. Since all three criteria were not met, this area does not qualify as a wetland. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of garlic mustard (UPL, 30%) and Carolina geranium (UPL, 30%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP E3

This DP was collected in the northern portion of WL-E-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 60%). The soil profile met the depleted matrix (F3), redox depressions (F8), and coast prairie redox (A16) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5).

DP E4

This DP was collected in the upland area adjacent to DP E3. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of suckling clover (*Trifolium dubium*, FACU, 75%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.6 WL-F-PEM – (0.25-acre PEM on-SITE)

WL-F-PEM is located in the southeastern portion of the proposed station property and consists of 0.05 acres of PEM wetland. WL-F-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP F1

This DP was collected in the northern portion of WL-F-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 80%). The soil profile met the redox depressions (F8) and coast prairie redox (A16) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), geomorphic position (D2), and the FAC-neutral test (D5).

DP F2

This DP was collected in the upland area adjacent to DP F1. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of small-flower buttercup (FAC, 85%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.7 WL-G-PFO – (0.03-acre PFO on-SITE, Continuous north and east off-SITE)

WL-G-PFO is located in the northwestern portion of the proposed transmission line corridor and consists of 0.03 acres of palustrine, forested (PFO) wetland. WL-G-PFO appears to continue north and east of the study area. WL-G-PFO did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP G1

This DP was collected in the central portion of WL-G-PFO. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common buttonbush (*Cephalanthus occidentalis*, OBL, 20%), small-spike false nettle (*Boehmeria cylindrica*, OBL, 35%), and white grass (*Leersia virginica*, FACW, 15%). The soil profile met the coast prairie redox (A16), depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the algal mat or crust (B4), water-stained leaves (B9), crayfish burrows (C8), geomorphic position (D2) and FAC-neutral test (D5),

DP G2

This DP was collected in the upland area adjacent to DP G1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of common hackberry (*Celtis occidentalis*, FAC, 30%), black cherry (*Prunus serotina*, FACU, 30%), rambler rose (*Rosa multiflora*, FACU, 25%), allegheny blackberry (*Rubus allegheniensis*, FACU, 10%), and Japanese honeysuckle

(*Lonicera japonica*, FACU, 60%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.8 WL-H – (0.63-acre PEM and 0.08-acre PFO on-SITE)

WL-H was situated in the southern portion of the proposed station property. WL-H did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

4.3.8.1 Wetland WL-H-PEM – (0.63-acre PEM)

WL-H-PEM consists of 0.63-acre of PEM wetland on-SITE.

4.3.8.2 Wetland WL-H-PFO- (0.08-acre PFO)

WL-H-PFO consists of 0.08-acre of PFO wetland on-SITE.

DP H1

This DP was collected in the northern, emergent portion of WL-H. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 50%). The soil profile met the depleted matrix (F3), redox depressions (F8), and coast prairie redox (A16) indicators for hydric soil. Evidence of wetland hydrology observed included the algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2) and FAC-neutral test (D5).

DP H2

This DP was collected in the upland area adjacent to DP H1. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of miner's pepperwort (*Lepidium densiflorum*, FAC, 20%), little barley (FAC, 15%), and hairy buttercup (FAC, 15%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP H3

This DP was collected in the eastern, forested portion of WL-H. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of silver maple (*Acer saccharinum*, FACW, 85%) and shallow sedge (*Carex lurida*, OBL, 75%). The soil profile met the redox depressions (F8) indicator for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), geomorphic position (D2), and the FAC-neutral test (D5).

DP H4

This DP was collected in the upland area adjacent to DP H3. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of pale-seed plantain (*Plantago virginica*, FACU, 25%) and little Barley (FAC, 25%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP H5

This DP was collected in the eastern, emergent portion of WL-H. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of hairy buttercup (FAC, 70%). The soil profile met the depleted matrix (F3) indicator for hydric soil. Evidence of wetland hydrology observed included the algal mat or crust (B4) and water-stained leaves (B9).

DP H6

This DP was collected in the upland area adjacent to DP H5. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of pale-seed plantain (FACU, 55%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.9 WL-I-PEM – (0.02-acre PEM on-SITE)

WL-I-PEM was situated in southern portion of the proposed station property and consists of 0.02 acres of PEM wetland. WL-I-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP I1

This DP was collected in the eastern portion of WL-I-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 40%) and miner's pepperwort (FAC, 30%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the algal mat or crust (B4), geomorphic position (D2) and FAC-neutral test (D5),

DP I2

This DP was collected in the upland area adjacent to DP I1. This area met no criteria. The dominant vegetation for each stratum present consisted of pale-seed plantain (FACU, 70%). Since all three criteria were not met, this area does not qualify as a wetland. No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.10 WL-J-PEM – (0.34-acre PEM on-SITE)

WL-J-PEM was situated in the southwestern of the proposed station property and consisted of 0.34 acres of PEM wetland. WL-J-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP J1

This DP was collected in the southern portion of WL-J-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of tufted meadow-foxtail (FACW, 85%). The soil profile met the coast prairie redox (A16), depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5).

DP J2

This DP was collected in the upland area adjacent to DP J1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of pale-seed plantain (FACU, 70%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.11 WL-K-PFO– (0.04-acre PFO on-SITE)

WL-K-PFO is located in the southeastern portion of the proposed transmission line corridor and consists of 0.04 acres of PFO wetland. WL-K-PFO did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP K1

This DP was collected in the central portion of WL-K-PFO. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of sweet-gum (*Liquidambar styraciflua*, FACW, 20%), ash-leaf maple (*Acer negundo*, FAC, tree stratum 15%, shrub stratum 10%), pin oak (Quercus palustris, FACW, 10%), sweet-gum (FACW, 10%), squarrose sedge (*Carex squarrosa*, OBL, 40%), eastern poison ivy (*Toxicodendron radicans*, FAC, 15%), and Japanese honeysuckle (FACU, 20%). The soil profile met the coast prairie redox (A16), depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the water-stained leaves (B9), geomorphic position (D2) and FAC-neutral test (D5).

DP K2

This DP was collected in the upland area adjacent to DP K1. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of pin oak (FACW, 30%), red maple (*Acer rubrum*, FAC, 10%), American elm (*Ulmus americana*, FACW, 10%), rambler rose (FACU, 20%), eastern poison ivy (FAC, 10%), nodding fescue (*Festuca subverticillata*, FACU, 3%), and Japanese honeysuckle (FACU, 35%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.12 WL-L-PEM – (0.24-acre PEM on-SITE, Continuous south off-SITE)

WL-L-PEM is located in the southern portion of the proposed transmission line corridor and consists of 0.24 acres of PEM wetland. WL-L-PEM appears to continue south of the study area. WL-L-PEM did appear to have a hydrologic connection with a federally jurisdictional "Waters of the U.S.," and as such would likely be considered subject to regulation by USACE and OEPA.

DP L1

This DP was collected in the eastern portion of WL-L-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of rice cut grass (*Leersia oryzoides*, OBL, 20%), common rush (OBL, 10%), and small carp grass (*Arthraxon hispidus*, FACW, 10%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included high water table (A2), geomorphic position (D2), and the FAC-neutral test (D5).

DP L2

This DP was collected in the upland area adjacent to DP L1. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not

qualify as a wetland. The dominant vegetation for each stratum present consisted of Canadian goldenrod (*Solidago canadensis*, FACU, 20%) and cut-leaf teasel (*Dipsacus laciniatus*, UPL, 15%). The soil profile met the Depleted Matrix (F3) indicator for hydric soil. No indicators of wetland hydrology were observed.

4.3.13 WL-M-PEM – (0.005-acre PEM on-SITE)

WL-M-PEM is located in southern portion of the proposed transmission line corridor and consists of 0.005 acres of PEM wetland. WL-M-PEM did appear to have a hydrologic connection with a federally jurisdictional "Waters of the U.S.," and as such would likely be considered subject to regulation by USACE and OEPA.

DP M1

This DP was collected in the eastern portion of WL-M-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of deer-tongue rosette grass (*Dichanthelium clandestinum*, FACW, 40%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included geomorphic position (D2) and the FAC-neutral test (D5).

DP M2

This DP was collected in the upland area adjacent to DP M1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Allegheny blackberry (*Rubus allegheniensis*, FACU, 10%), Canadian goldenrod (FACU, 60%), and Japanese honeysuckle (FACU, 5%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed. Since all three criteria were not met, this area does not qualify as a wetland.

4.3.14 WL-N-PEM – (0.24-acre PEM on-SITE)

WL-N-PEM is located in southeastern portion of the proposed transmission line corridor and consists of 0.24 acres of PEM wetland. WL-N-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP N1

This DP was collected in the eastern portion of WL-N-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of reed canary grass (FACW, 60%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included saturation (A3), surface soil cracks (B6), geomorphic position (D2), and the FAC-neutral test (D5).

DP N2

This DP was collected in the upland area adjacent to DP N1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of deer-tongue rosette grass (FACW, 25%), garlic mustard (UPL, 15%), and cut-leaf teasel (UPL, 5%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP N3

This DP was collected in the western portion of WL-N-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of reed canary grass (FACW, 60%) and common rush (OBL, 15%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for

hydric soil. Evidence of wetland hydrology observed included saturation (A3), algal mat or crust (B4), geomorphic position (D2), and the FAC-neutral test (D5).

DP N4

This DP was collected in the upland area adjacent to DP N3. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of deer-tongue rosette grass (FACW, 20%), orange day-lily (*Hemerocallis fulva*, UPL, 15%), and Japanese honeysuckle (FACU, 30%). The soil profile met the depleted below dark surface (A11), depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. No indicators of wetland hydrology were observed.

4.3.15 WL-O-PEM – (0.12-acre PEM on-SITE)

WL-O-PEM is located in southeastern portion of the proposed transmission line corridor and consists of 0.12 acres of PEM wetland. WL-O-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP O1

This DP was collected in the central portion of WL-O-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of deer-tongue rosette grass (FACW, 45%) and Kentucky blue grass (*Poa pratensis*, FAC, 20%). The soil profile met the coast prairie redox (A16) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the geomorphic position (D2) and FAC-neutral test (D5).

DP O2

This DP was collected in the upland area adjacent to DP O1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Canadian goldenrod (FACU, 70%) and Japanese honeysuckle (FACU, 5%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.16 WL-P-PEM – (0.01-acre PEM on-SITE)

WL-P-PEM is located in southeastern portion of the proposed transmission line corridor and consists of 0.01 acres of PEM wetland. WL-P-PEM does not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP P1

This DP was collected in the eastern portion of WL-P-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common rush (OBL, 25%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the saturation (A3), geomorphic position (D2) and FAC-neutral test (D5).

DP P2

This DP was collected in the upland area adjacent to DP P1. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Kentucky blue grass (FAC,

30%), Canadian goldenrod (FACU, 20%), and common milkweed (*Asclepias syriaca*, FACU, 15%). The soil profile met the redox depressions (F8) indicator for hydric soil. No indicators of wetland hydrology were observed.

4.3.17 WL-Q-PEM – (0.08-acre PEM on-SITE)

WL-Q-PEM is located in southeastern portion of the proposed transmission line corridor and consists of 0.08 acres of PEM wetland. WL-Q-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP Q1

This DP was collected in the eastern portion of WL-Q-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common rush (OBL, 40%) and deer-tongue rosette grass (FACW, 15%). The soil profile met the depleted below dark surface (A11), depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the surface water (A1), high water table (A2), saturation (A3), surface soil cracks (B6), geomorphic position (D2) and FAC-neutral test (D5),

DP Q2

This DP was collected in the upland area adjacent to DP Q1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of cut-leaf teasel (UPL, 30%), lyre-leaf sage (*Salvia lyrata*, FACW, 30%), and may-apple (*Podophyllum peltatum*, FACU, 20%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.18 WL-R-PEM – (0.01-acre PEM on-SITE)

WL-R-PEM is located in southeastern portion of the proposed transmission line corridor and consists of 0.01 acres of PEM wetland. WL-R-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP R1

This DP was collected in the central portion of WL-R-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of stalk-grain sedge (*Carex stipata*, OBL, 20%) and American water-plantain (*Alisma subcordatum*, OBL, 5%). The soil profile met the depleted below dark surface (A11), depleted matrix (F3), redox dark surface (F6) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the algal mat or crust (B4), geomorphic position (D2) and FAC-neutral test (D5).

DP R2

This DP was collected in the upland area adjacent to DP R1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of rambler rose (FACU, 15%), Allegheny blackberry (FACU, 20%), Canadian goldenrod (FACU, 10%), and Japanese honeysuckle (FACU, 60%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.19 WL-S-PEM – (0.02-acre PEM on-SITE)

WL-S-PEM is located in southeastern portion of the proposed transmission line corridor and consists of 0.02 acres of PEM wetland. WL-S-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP S1

This DP was collected in the eastern portion of WL-S-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common rush (OBL, 30%) and spotted lady's-thumb (*Persicaria maculosa*, FACW, 15%). The soil profile met the redox dark surface (F6) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included saturation (A3), water-stained leaves (B9), geomorphic position (D2) and FAC-neutral test (D5).

DP S2

This DP was collected in the upland area adjacent to DP S1. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of deer-tongue rosette grass (FACW, 25%), cut-leaf teasel (UPL, 20%), Canadian goldenrod (FACU, 15%), and Japanese honeysuckle (FACU, 15%). The soil profile met the redox depressions (F8) indicator for hydric soil. No indicators of wetland hydrology were observed. Since all three criteria were not met, this area does not qualify as a wetland.

4.3.20 WL-T-PEM – (7.55-acre PEM on-SITE)

WL-T-PEM extends from central to northwestern end of the proposed transmission line corridor and consists of 7.55 acres of PEMwetland. WL-T-PEM did appear to have a hydrologic connection with a federally jurisdictional "Waters of the U.S.," and as such would likely be considered subject to regulation by USACE and OEPA.

DP T1

This DP was collected in the eastern portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common rush (OBL, 95%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the algal mat or crust (B4), geomorphic position (D2) and FAC-neutral test (D5).

DP T2

This DP was collected in the upland area adjacent to DP T1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of tall fescue (*Lolium arundinaceum*, UPL, 50%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP T3

This DP was collected in the eastern portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of narrow-leaf cat-tail (*Typha angustifolia*, OBL, 60%). The soil profile met the redox dark surface (F6) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the saturation (A3), algal mat or crust (B4), surface soil cracks (B6), geomorphic position (D2) and FAC-neutral test (D5).

DP T4

This DP was collected in the upland area adjacent to DP T3. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of cut-leaf teasel (UPL, 20%), Canadian goldenrod (FACU, 20%), and deer-tongue rosette grass (FACW, 15%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP T5

This DP was collected in the eastern portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of narrow-leaf cat-tail (OBL, 30%) and water smartweed (*Persicaria amphibia*, OBL, 15%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included high water table (A2), saturation (A3), geomorphic position (D2) and the FAC-neutral test (D5).

DP T6

This DP was collected in the upland area adjacent to DP T5. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of perfoliate pennycress (*Noccaea perfoliate*, UPL, 55%) and Indian hemp residue (*Apocynum cannabinum resiude,* FAC, 35%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP T7

This DP was collected in the eastern portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of narrow-leaf cat-tail (OBL, 30%) and common reed (FACW, 10%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included surface water (A1), saturation (A3), geomorphic position (D2) and the FAC-neutral test (D5).

DP T8

This DP was collected in the upland area adjacent to DP T7. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of callery pear (*Pyrus calleryana*, UPL, 10%), amur honeysuckle (*Lonicera mackii*, UPL, 5%), cut-leaf teasel (UPL, 10%), Alleghany blackberry (FACU,5%) and Japanese honeysuckle (FACU, 50%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP T9

This DP was collected in the central portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of deer-tongue rosette grass (FACW, 55%) and common reed (FACW, 45%). The soil profile met the depleted matrix (F3) and redox depressions (F8) and indicators for hydric soil. Evidence of wetland hydrology observed included geomorphic position (D2) and the FAC-neutral test (D5).

DP T10

This DP was collected in the upland area adjacent to DP T9. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not

qualify as a wetland. The dominant vegetation for each stratum present consisted of Canadian goldenrod (FACU, 45%) and common reed (FACW, 35%). The soil profile met the Redox Depressions (F8) indicator for hydric soil. No indicators of wetland hydrology were observed.

DP T11

This DP was collected in the central portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of narrow-leaf cat-tail (OBL, 60%) and common reed (FACW, 35%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included high water table (A2), geomorphic position (D2), and the FAC-neutral test (D5).

DP T12

This DP was collected in the upland area adjacent to DP T11. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of red maple (FAC, 5%) and Canadian goldenrod (FACU, 45%). The soil profile met the coast prairie redox (A16) indicator for hydric soil. No indicators of wetland hydrology were observed.

DP T13

This DP was collected in the western portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of bearded beggarticks (*Bidens aristosa*, FACW, 65%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included saturation (A3), water-stained leaves (B9), geomorphic position (D2) and the FAC-neutral test (D5).

DP T14

This DP was collected in the upland area adjacent to DP T13. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Canadian goldenrod (FACU, 55%) and Kentucky blue grass (FAC, 30%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP T15

This DP was collected in the western portion of WL-T-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common reed (FACW, 55%) and narrow-leaf cat-tail (OBL, 40%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the saturation (A3), algal mat or crust (B4) and FAC-neutral test (D5).

DP T16

This DP was collected in the upland area adjacent to DP T15. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of orange day-lily (UPL, 65%) and Allegheny blackberry (FACU, 20%). The soil profile met the redox depressions (F8) indicator for hydric soil. No indicators of wetland hydrology were observed.

4.3.21 WL-U-PEM – (0.01-acre PEM on-SITE)

WL-U-PEM is located in the central portion of the proposed transmission line corridor and consists of 0.01 acres of PEM wetland. WL-U-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP U1

This DP was collected in the central portion of WL-U-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of water smartweed (OBL, 30%) and common rush (OBL, 15%). The soil profile met the redox depressions (F8) indicator for hydric soil. Evidence of wetland hydrology observed included the saturation (A3), algal mat or crust (B4), geomorphic position (D2) and FAC-neutral test (D5).

DP U2

This DP was collected in the upland area adjacent to DP U1. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Canadian goldenrod (FACU, 35%) and Kentucky blue grass (FAC, 35%). The soil profile met the redox depressions (F8) indicator for hydric soil. No indicators of wetland hydrology were observed.

4.3.22 WL-V-PEM – (0.003-acre PEM on-SITE)

WL-V-PEM is located in the central portion of the proposed transmission line corridor and consists of 0.003 acres of PEM wetland. WL-V-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP V1

This DP was collected in the central portion of WL-V-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of common rush (OBL, 10%), narrow-leaf cat-tail (OBL, 5%), and water smartweed (OBL, 5%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the geomorphic position (D2) and FAC-neutral test (D5).

DP V2

This DP was collected in the upland area adjacent to DP V1. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Allegheny blackberry (FACU, 60%). The soil profile met the Redox Depressions (F8) indicator for hydric soil. No indicators of wetland hydrology were observed.

4.3.23 WL-W-PEM – (0.19-acre PEM on-SITE, Continuous north and west off-SITE)

WL-W-PEM is located in the northwestern portion of the proposed transmission line corridor and consists of 0.19 acres of PEM wetland. WL-W-PEM appears to continue north and west of the study area. WL-W-PEM did not

appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation OEPA.

DP W1

This DP was collected in the eastern portion of WL-W-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of lyre-leaf sage (FACW, 30%) and narrow-leaf cat-tail (OBL, 30%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included the surface water (A1), high water table (A2), saturation (A3), water-stained leaves (B9) and geomorphic position (D2), the FAC-neutral test (D5)

DP W2

This DP was collected in the upland area adjacent to DP W1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of corn speedwell (*Veronica arvensis*, FACU, 35%), Canadian goldenrod (FACU, 30%), and cut-leaf teasel (UPL, 25%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.24 WL-X-PEM – (0.004-acre PEM on-SITE, Continuous north and west off-SITE)

WL-X-PEM is located in the northwestern portion of the proposed transmission line corridor and consists of 0.004 acres of PEM wetland. WL-X-PEM appears to continue north and west of the study area. WL-X-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP X1

This DP was collected in the southern portion of WL-X-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of spotted lady's-thumb (FACW, 45%) and common reed (FACW, 16%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included algal mat or crust (B4), geomorphic position (D2), and the FAC-neutral test (D5).

DP X2

This DP was collected in the upland area adjacent to DP X1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of bloodroot (*Sanguinaria canadensis*, FACU, 55%) and orange day-lily (FACU, 45%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

4.3.25 WL-Y-PEM – (0.01-acre PEM on-SITE, Continuous north and west off-SITE)

WL-Y-PEM is located in the southeastern portion of the proposed transmission line corridor and consists of 0.01 acres of PEM wetland. WL-Y-PEM appears to continue north and west of the study area. WL-Y-PEM did not appear to have a hydrologic connection with any federally jurisdictional "Waters of the U.S.," and as such would likely be considered isolated and subject to regulation by OEPA.

DP Y1

This DP was collected in the northwestern portion of WL-Y-PEM. All three criteria were met, which qualifies this area as a wetland. The dominant vegetation for each stratum present consisted of narrow-leaf cat-tail (OBL, 35%).

The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. Evidence of wetland hydrology observed included surface water (A1), high water table (A2), saturation (A3), geomorphic position (D2) and the FAC-neutral test (D5).

DP Y2

This DP was collected in the upland area adjacent to DP Y1. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of English plantain (*Plantago lanceolata*, FACU, 35%) and Kentucky blue grass (FAC, 30%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

Table 4: Delineated Wetlands Identified within the Survey Area

Wetland ID	Location		Isolated ?	Habitat Type	Delineated Area (acre)	ORAM		Proposed Impacts	
	Latitude	Longitude				Score	Category	Temporary Matting Area (acre)	Permanent Impact Area (acre)
WL-A	38.61241	-82.83833	Yes	PEM	0.76	19	1	TBD	TBD
WL-B	38.61262	-82.83942	Yes	PEM	0.27	20.5	1	TBD	TBD
WL-C	38.61409	-82.83723	Yes	PEM	0.07	17.5	1	TBD	TBD
WL-D	38.61403	-82.83400	Yes	PEM	0.63	21.5	1	TBD	TBD
WL-E	38.61416	-82.83452	Yes	PEM	0.43	24.5	1	TBD	TBD
WL-F	38.61323	-82.83291	Yes	PEM	0.05	20	1	TBD	TBD
WL-G	38.61329	-82.83178	Yes	PFO	0.03	30	1	TBD	TBD
WL-H	38.61182	-82.83567	Yes	PEM, PFO	PEM 0.63 PFO 0.08	29	1	TBD	TBD
WL-I	38.61189	-82.83659	Yes	PEM	0.02	19.5	1	TBD	TBD
WL-J	38.61182	-82.83754	Yes	PEM	0.34	26.5	1	TBD	TBD
WL-K	38.57193	-82.77648	Yes	PFO	0.04	24	1	TBD	TBD
WL-L	38.57352	-82.77719	No	PEM	0.24	20	1	TBD	TBD
WL-M	38.57352	-82.77719	No	PEM	0.005	15.5	1	TBD	TBD

WL-N	38.57481	-82.78030	Yes	PEM	0.24	17	1	TBD	TBD
WL-O	38.57586	-82.78248	Yes	PEM	0.12	18.5	1	TBD	TBD
WL-P	38.57816	-82.78771	Yes	PEM	0.01	14.5	1	TBD	TBD
WL-Q	38.57943	-82.79059	Yes	PEM	0.08	17	1	TBD	TBD
WL-R	38.58107	-82.79426	Yes	PEM	0.1	19	1	TBD	TBD
WL-S	38.58178	-82.79564	Yes	PEM	0.2	20	1	TBD	TBD
WL-T	38.59140	-82.80687	No	PEM	7.55	32	2	TBD	TBD
WL-U	38.59274	-82.80834	Yes	PEM	0.01	16	1	TBD	TBD
WL-V	38.59329	-82.80893	Yes	PEM	0.003	16	1	TBD	TBD
WL-W	38.60895	-82.82589	Yes	PEM	0.19	14.5	1	TBD	TBD
WL-X	38.61154	-82.82788	Yes	PEM	0.004	13	1	TBD	TBD
WL-Y	38.57112	-82.77155	Yes	PEM	0.01	16.5	1	TBD	TBD

4.4 Data Point Summary

Below is a description of the information collected at each additional DP during the April 29 - 30 and May 5, 2026 field investigation that was not associated with an identified wetland area. The purpose of collecting these DPs was to describe the remaining characteristics of the SITE. Information that was collected at each DP is summarized on the forms provided in **Appendix C**. Their placement is depicted in **Figure 4**.

DP 1

This DP was collected in the northeastern portion of the proposed station property. This area did not meet any wetland criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of annual knawel (*Scleranthus annuus*, FACU, 75%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 2

This DP was collected in the northwestern portion of the proposed station property. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of

Japanese bristle grass (FAC, 40%), kidney-leaf buttercup (*Ranunculus abortivus*, FACW, 35%), and Carolina geranium (UPL, 20%). No indicators of hydric soils were observed. Evidence of wetland hydrology observed included the FAC-neutral test (D5).

DP 3

This DP was collected in the north-central portion of the proposed station property. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of annual knawel (FACU, 40%) and hairy buttercup (FAC, 15%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 4

This DP was collected in the eastern portion of the proposed station property. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of common sheep sorrel (*Rumex acetosella*, FACU, 40%) and tufted meadow-foxtail (FACW, 15%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 5

This DP was collected in the northern portion of the proposed transmission line corridor. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Japanese honeysuckle (FACU, 40%), rambler rose (FACU, 15%), American elm (FACW, 10%), Canadian goldenrod (FACU, 5%), and eastern poison ivy (FAC, 2%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 6

This DP was collected in the south-central portion of the proposed station property. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of sticky mouse-ear chickweed (*Cerastium glomeratum*, FACU, 40%) and tufted meadow-foxtail (FACW, 20%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 7

This DP was collected in the southwestern portion of the proposed station property. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of red maple (FAC, 40%), Japanese honeysuckle (FACU, 40%), eastern poison ivy (FAC, 35%), pin oak (FACW, 25%), rambler rose (FACU, 15%), pin oak (FACW, 5%), yellow buckeye (*Aesculus flava,* FACU, 5%), and common pawpaw (*Asimina triloba*, FAC, 5%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 8

This DP was collected in the southwestern portion of the proposed station property. This area met the hydrophytic vegetation criterion but did not meet the hydric soil and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of field meadow-foxtail (FACW, 85%). No indicators of hydric soils were observed. Evidence of wetland hydrology observed included the FAC-neutral test (D5).

DP 9

This DP was collected in the southwestern portion of the proposed station property. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of common sheep sorrel (FACU, 40%) and tufted meadow-foxtail (FACW, 15%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 10

This DP was collected in the eastern portion of the proposed transmission line corridor. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Canadian goldenrod (FACU, 55%) and Japanese honeysuckle (FACU, 10%). The soil profile met the iron monosulfide (A18) and redox depressions (F8) indicators for hydric soil. No indicators of wetland hydrology were observed.

DP 11

This DP was collected in the eastern portion of the proposed transmission line corridor. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Canadian goldenrod (FACU, 55%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 12

This DP was collected in the central portion of the proposed transmission line corridor. This area met the hydric soils criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of cut-leaf teasel (UPL, 25%) and bloodroot (FACU, 20%). The soil profile met the redox depressions (F8) indicator for hydric soil. No indicators of wetland hydrology were observed.

DP 13

This DP was collected in the western portion of the proposed transmission line corridor. This area met no criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of Kentucky blue grass (FAC, 40%), common milkweed (FACU, 15%), cut-leaf teasel (UPL, 15%), Allegheny blackberry (FACU, 15%), and hedge false bindweed (*Calystegia sepium*, FAC, 5%). No indicators of hydric soils were observed. No indicators of wetland hydrology were observed.

DP 14

This DP was collected in the western portion of the proposed transmission line corridor. This area met the hydric soil criterion but did not meet the hydrophytic vegetation and wetland hydrology criteria. Since all three criteria were not met, this area does not qualify as a wetland. The dominant vegetation for each stratum present consisted of orange day-lily (UPL, 45%) and Canadian goldenrod (FACU, 35%). The soil profile met the depleted matrix (F3) and redox depressions (F8) indicators for hydric soil. No indicators of wetland hydrology were observed.

4.5 Streams, Drainage Features, and Other Aquatic Features

Five streams and 31 upland drainage features (swales and road side ditches) conveying stormwater runoff from the adjacent highway were identified during this investigation using the methods described in Chapter 2. Based on

field observations, the 31 drainage features appear consistent with the exclusions for ditches excavated wholly in and draining only dry land under 40 CFR 120.2(b)(3), and/or swales and erosional features under 40 CFR 120.2(b)(8); therefore, are not anticipated to qualify as federally jurisdictional "Waters of the U.S." subject to USACE and/or EPA authority. Information collected by V3 on 29 and 30 April and 5 May 2026 is summarized below. An overall SITE delineation map is provided as **Figure 4**.

4.5.1 ST-1-INT – (180 LF, Intermittent Stream)

ST-1-INT is located in the northern portion of the proposed transmission line, west of the existing railroad, and consist of 180 linear feet of intermittent stream within the SITE. The substrate of ST-1-INT consisted of silt and sand. ST-1-INT has an average width at the OHWM of 10 feet within the SITE. ST-1-INT exhibited an OHWM and will likely qualify as federally jurisdictional "Waters of the U.S." subject to USACE and OEPA authority.

4.5.2 ST-2-INT – (52 LF, Intermittent Stream)

ST-2-INT is located in the southern portion of the proposed transmission line, northeast of the existing railroad and consisted of 52 linear feet of intermittent stream within the SITE. The substrate of ST-2-INT consisted of gravel, silt, and sand. ST-2-INT has an average width at the OHWM of 2 feet within the SITE. ST-2-INT exhibited an OHWM and will likely qualify as federally jurisdictional "Waters of the U.S." subject to USACE and OEPA authority.

4.5.3 ST-3-INT – (63 LF, Intermittent Stream)

ST-3-INT is located in the south-central portion of the proposed transmission line, northeast of the existing railroad and consisted of 63 linear feet of intermittent stream within the SITE. The substrate of ST-3-INT consisted of cobble, silt, and muck. ST-3-INT has an average width at the OHWM of 3 feet within the SITE. ST-3-INT exhibited an OHWM and will likely qualify as federally jurisdictional "Waters of the U.S." subject to USACE and OEPA authority.

4.5.4 ST-4-INT – (73 LF, Intermittent Stream)

ST-4-INT is located in the north-central portion of the proposed transmission line, northeast of the existing railroad and consisted of 73 linear feet of intermittent stream within the SITE. The substrate of ST-4-INT consisted of silt and sand. ST-4-INT has an average width at the OHWM of 6 feet within the SITE. ST-4-INT exhibited an OHWM and will likely qualify as federally jurisdictional "Waters of the U.S." subject to USACE and OEPA authority.

4.5.5 ST-5-INT – (113 LF, Intermittent Stream)

ST-5-INT is located in the northern portion of the proposed transmission line, northeast of the existing railroad and consisted of 113 linear feet of intermittent stream within the SITE. The substrate of ST-5-INT consisted of silt and sand. ST-5-INT has an average width at the OHWM of 4 feet within the SITE. ST-5-INT exhibited an OHWM and will likely qualify as federally jurisdictional "Waters of the U.S." subject to USACE and OEPA authority.

Table 5: Delineated Stream Identified within the Survey Area

Feature	Location		Stream Type	Delineated Length (LF)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation		
	Latitude	Longitude					Method	Score	Category / Rating / OAC Designation
ST-1-INT	38.61339°	-82.83107°	Intermittent	±180 LF	39	10	QHEI	33.5	Poor
ST-2-INT	38.57322°	-82.77737°	Intermittent	±52 LF	3	2	HHEI	42	Headwater Stream Class II

ST-3-INT	38.58090°	-82.79241°	Intermittent	±63 LF	4	3	HHEI	55	Headwater Stream Class II
ST-4-INT	38.59838°	-82.81401°	Intermittent	±73 LF	7	6	HHEI	52	Headwater Stream Class II
ST-5-INT	38.61050°	-82.82765°	Intermittent	±113 LF	5	4	HHEI	64	Headwater Stream Class II

Chapter 5 Conclusions

On 29 and 30 April and 5 May 2026, V3 performed a wetland delineation of the SITE located Scioto and Lawrence County, Ohio. The following table shows the features identified on-SITE, type and size of the features, and anticipated regulatory authority (**Table 10**).

Table 10: Aquatic Features On-SITE

Feature	Feature Type	Size (On-SITE)	Anticipated Regulatory Status
WL-A-PEM	PEM Wetland	0.76 acres	OEPA
WL-B-PEM	PEM Wetland	0.27 acres	OEPA
WL-C-PEM	PEM Wetland	0.07 acres	OEPA
WL-D-PEM	PEM Wetland	0.63 acres	OEPA
WL-E-PEM	PEM Wetland	0.43 acres	OEPA
WL-F-PEM	PEM Wetland	0.05 acres	OEPA
WL-G-PFO	PFO Wetland	0.03 acres	OEPA
WL-H	PEM Wetland	0.63 acres	OEPA
	PFO wetland	0.08 acres	OEPA
WL-I-PEM	PEM Wetland	0.02 acres	OEPA
WL-J-PEM	PEM wetland	0.34 acres	OEPA
WL-K-PFO	PFO wetland	0.04 acres	OEPA
WL-L-PEM	PEM wetland	0.24 acres	USACE/OEPA
WL-M-PEM	PEM wetland	0.005 acres	USACE/OEPA
WL-N-PEM	PEM wetland	0.24 acres	OEPA
WL-O-PEM	PEM wetland	0.12 acres	OEPA
WL-P-PEM	PEM wetland	0.01 acres	OEPA
WL-Q-PEM	PEM wetland	0.08 acres	OEPA
WL-R-PEM	PEM wetland	0.01 acres	OEPA
WL-S-PEM	PEM wetland	0.02 acres	OEPA
WL-T-PEM	PEM wetland	7.55 acres	USACE/OEPA
WL-U-PEM	PEM wetland	0.01 acres	OEPA
WL-V-PEM	PEM wetland	0.003 acres	OEPA
WL-W-PEM	PEM wetland	0.19 acres	OEPA
WL-X-PEM	PEM wetland	0.004 acres	OEPA
WL-Y-PEM	PEM wetland	0.01 acres	OEPA
ST-1-INT	Intermittent Stream	180 LF	USACE/OEPA
ST-2-INT	Intermittent Stream	52LF	USACE/OEPA
ST-3-INT	Intermittent Stream	63 LF	USACE/OEPA
ST-4-INT	Intermittent Stream	73 LF	USACE/OEPA
ST-5-INT	Intermittent Stream	113 LF	USACE/OEPA

Five streams were identified on-SITE: ST-1-INT, ST-2-INT, ST-3-INT, ST-4-INT and ST-5-INT. All five streams will likely be verified as federally jurisdictional "Waters of the U.S." subject to regulation by the U.S. Army Corps of Engineers (USACE) and the Ohio Environmental Protection Agency (OEPA).

Twenty five wetlands were identified on-SITE: WL-A-PEM, WL-B-PEM, WL-C-PEM, WL-D-PEM, WL-E-PEM, WL-F-PEM, WL-G-PFO, WL-H-PEM, WL-H-PFO, WL-I-PEM, WL-J-PEM, WL-K-PFO, WL-L-PEM, WL-M-PEM, WL-N-PEM, WL-O-PEM, WL-P-PEM, WL-Q, WL-R-PEM, WL-S-PEM, WL-T-PEM, WL-U-PEM, WL-W-PEM, WL-X-PEM, WL-X-PEM, WL-Y-PEM.

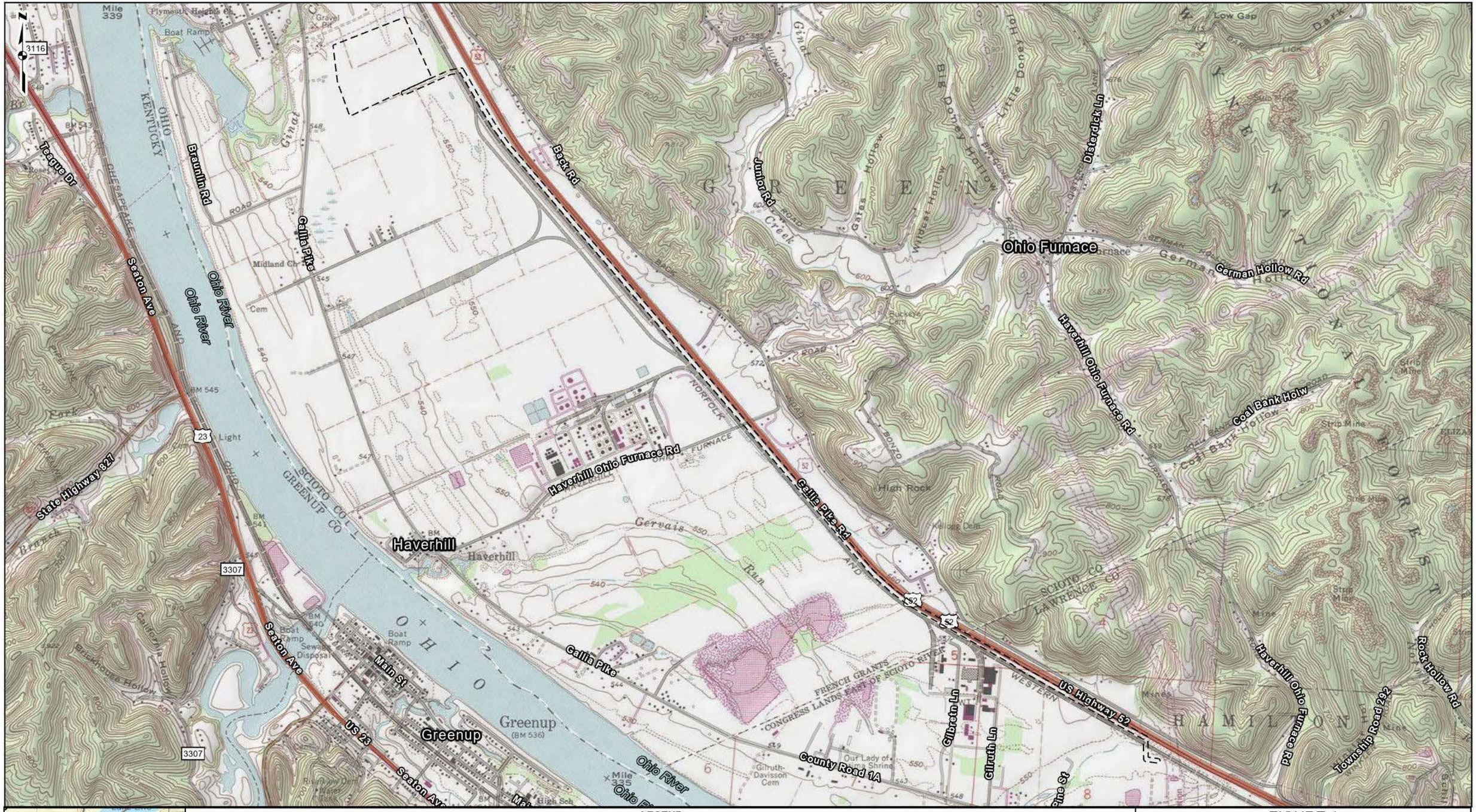
Wetlands WL-L-PEM, WL-M-PEM and WL-T-PEM appeared to exhibit a hydrologic connection to a federally jurisdictional "Water of the U.S.," and would likely be subject to regulation by the USACE and the OEPA. The remaining wetlands appeared to lack a hydrologic connection to a "Water of the U.S.," and would likely be considered isolated and subject to regulation by the OEPA.

Thirty one non-regulated upland drainage features (swales and roadside stormwater drainage ditches) were identified on-SITE. These features appear consistent with the exclusions for ditches excavated wholly in and draining only dry land under 40 CFR 120.2(b)(3), and/or swales and erosional features under 40 CFR 120.2(b)(8). Accordingly, these features did not appear to qualify as aquatic features subject to regulation by the USACE or OEPA.

An official species list obtained from the U.S. Fish and Wildlife Service (USFWS) Information Planning and Consultation (IPaC) web site indicated that the SITE is situated within the range of the Northern long-eared bat (*Myotis septentrionalis*, endangered), Indiana bat (*Myotis sodalis*, endangered), tricolored bat (*Perimyotis subflavus*, proposed endangered), fanshell (*Cyprogenia stegaria*, endangered), longsolid (*Fusconaia subrotunada*, threatened), pink mucket (*Lampsilis abrupta*, endangered), salamander mussel (*Simpsonaias ambigua*, proposed endangered), sheepnose mussel (*Plethobasus cyphyus*, endangered), snuffbox mussel (Epioblasma triquerta, endangered),monarch butterfly (*Danaus plexippus*, proposed threatened, small whorled pogonia (*Isotria medeoloides*, threatened) and Virginia spiraea (*Spiraea virginiana*, threatened). V3 observed potential roost trees on-SITE at the time of the SITE reconnaissance. The USFWS provided recommendations to avoid impacts to on-SITE streams and wetlands and to limit clearing of potential roost trees for federally listed bat species to the recommended seasonal window (October 1 through March 31). A desktop and field review indicated no suitable bat hibernacula within or near the SITE; therefore, impacts to hibernating bats are not anticipated. The UFWS also noted that the project is within the range of the bald eagle (*Haliaeetus leucocephalus*) and recommended review of available nest location data and field verification to determine whether the project is within 0.5 mile of a document next. A review of the ODNR bald eagle nest mapping resources indicated the nearest documented bald eagle nest near Pine Creek, approximately 7.5 miles north of the SITE. A filed review of the SITE and surrounding areas was also conducted during the visit, and no large stick nests or other indicators of bald eagle nesting were observed. Based on these findings, impacts to bald eagles are not anticipated.

Correspondence with the Ohio Department of Natural Resources (ODNR) indicated records of 15 endangered, threatened, or rare (ETR) species or special features/areas within a one-mile radius of the SITE (Table 3). Two of these species, Round-fruited Hedge-hyssop and Low Spearwort have been recorded within the SITE boundary. Additionally, the ODNR Division of Fish and Wildlife stated that the SITE is within the range of 46 ETR species. The ODNR stated that the project is not likely to impact these species if habitat is not impacted, and gave recommendations to avoid and minimize impacts to these species, including prohibiting in-stream work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. The ODNR Division of Natural Areas and Preserves stated that one state threatened plant species, low spearwort, has been recorded within the SITE boundaries and recommended the pre-construction survey to be conducted.

Figures



LEGEND

Study Area

0 500 1,000 2,000 Feet

FIGURE 1
LOCATION MAP

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
CHECKED: ODS
DATE: 6/23/2026
APPROVED: JVR

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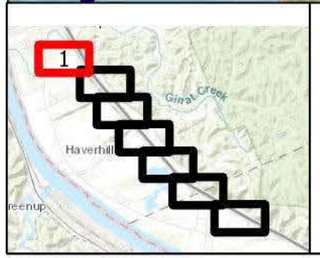

LEGEND

- Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Zone AE

0 75 150 300 Feet

FIGURE 2
NATIONAL WETLAND INVENTORY (NWI) &
FLOOD ZONES OF OHIO
SHEET 1 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS	DATE: 5/28/2026
CHECKED: ODS	APPROVED: JVR

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N

R4SBC

R4SBC

PEM1A

R5UBH

PEM1A

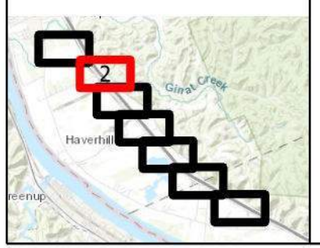
PEM1A

PEM1A

PUBGh

PEM1A

R4SBC



LEGEND

- Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Zone AE

0 75 150 300 Feet

FIGURE 2
NATIONAL WETLAND INVENTORY (NWI) & FLOOD ZONES OF OHIO
SHEET 2 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
CHECKED: ODS
DATE: 5/28/2026
APPROVED: JVR

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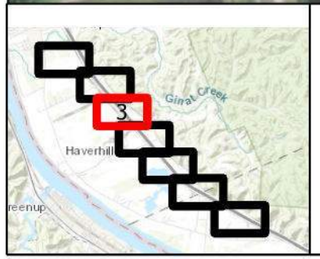

LEGEND

- Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Zone AE

0 75 150 300 Feet

FIGURE 2
NATIONAL WETLAND INVENTORY (NWI) &
FLOOD ZONES OF OHIO
SHEET 3 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS	DATE: 5/28/2026
CHECKED: ODS	APPROVED: JVR

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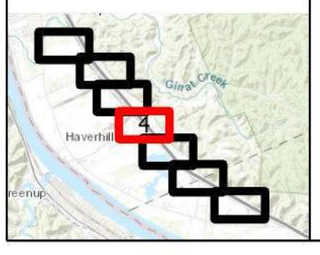

LEGEND

- Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Zone AE

0 75 150 300 Feet

FIGURE 2
NATIONAL WETLAND INVENTORY (NWI) &
FLOOD ZONES OF OHIO
SHEET 4 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS	DATE: 5/28/2026
CHECKED: ODS	APPROVED: JVR

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N

R4SBC

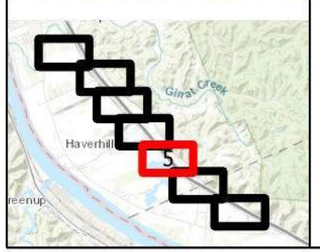
R4SBC

PUBGh

PSS1A

L1UBHx

R4SBC



LEGEND

- Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Zone AE

0 75 150 300 Feet

FIGURE 2
NATIONAL WETLAND INVENTORY (NWI) & FLOOD ZONES OF OHIO
SHEET 5 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
CHECKED: ODS
DATE: 5/28/2026
APPROVED: JVR

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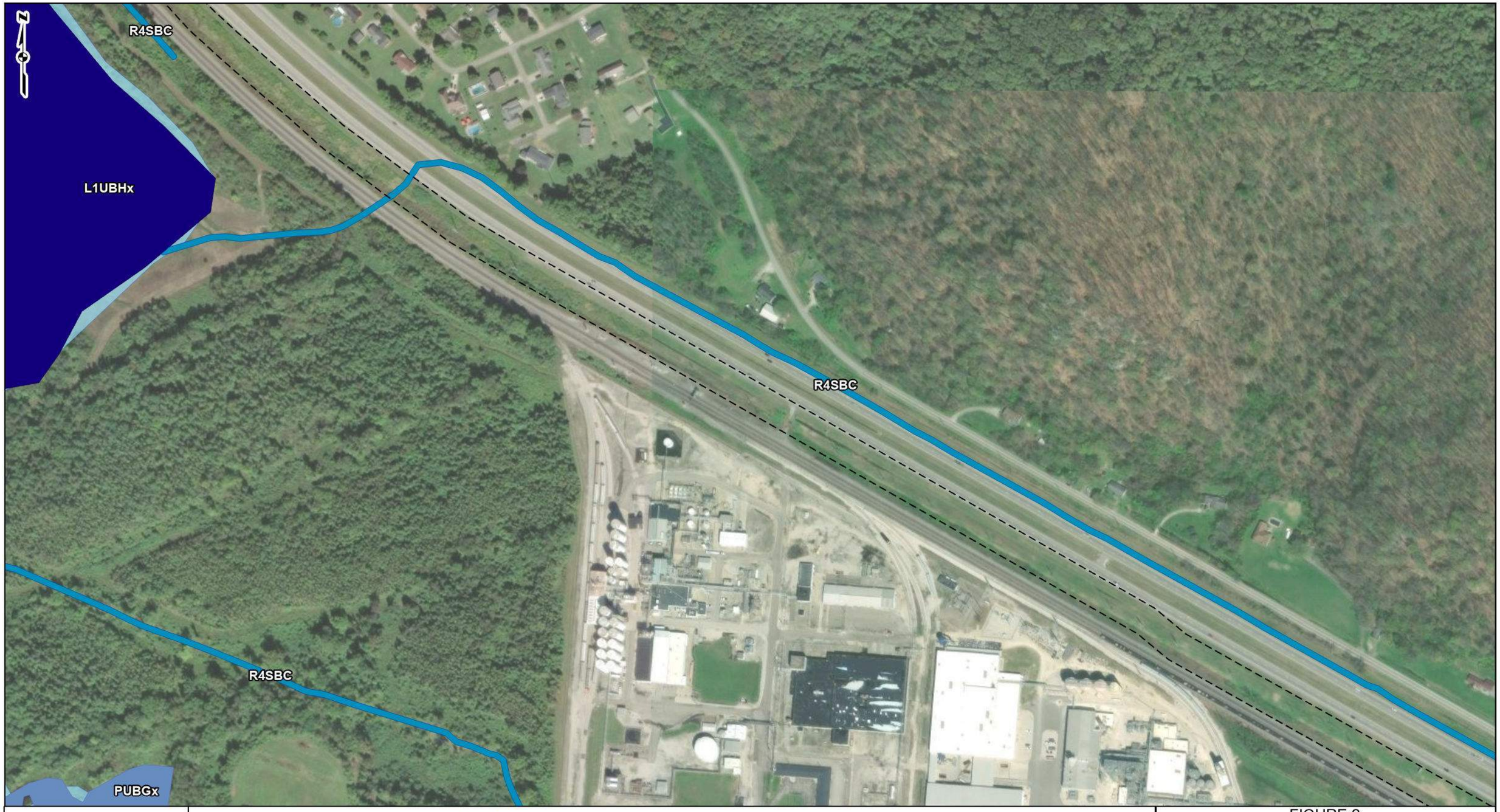

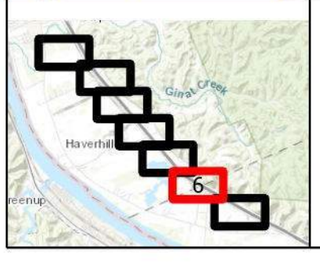

LEGEND

- Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Zone AE

0 75 150 300 Feet

FIGURE 2
NATIONAL WETLAND INVENTORY (NWI) & FLOOD ZONES OF OHIO
SHEET 6 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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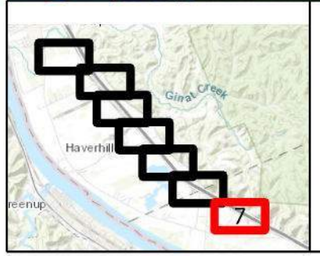

LEGEND

- Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine
- Zone AE

0 75 150 300 Feet

FIGURE 2
NATIONAL WETLAND INVENTORY (NWI) &
FLOOD ZONES OF OHIO
SHEET 7 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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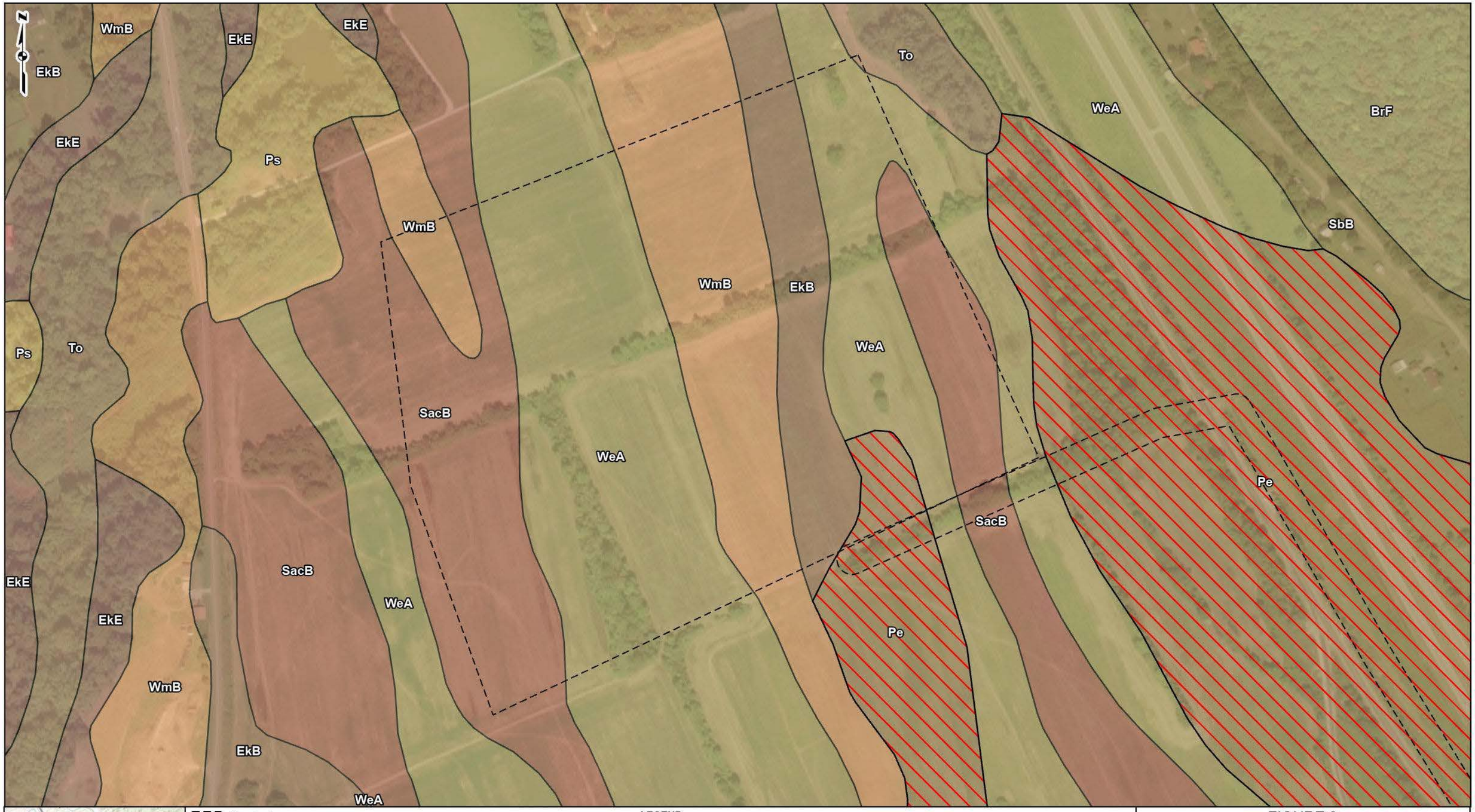

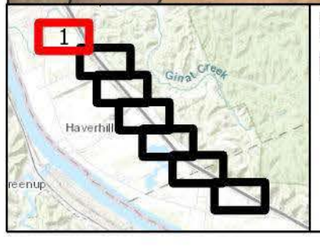

LEGEND

Study Area

Hydric Soils of Ohio

0 75 150 300 Feet

FIGURE 3
SOIL SURVEY OF OHIO
SHEET 1 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
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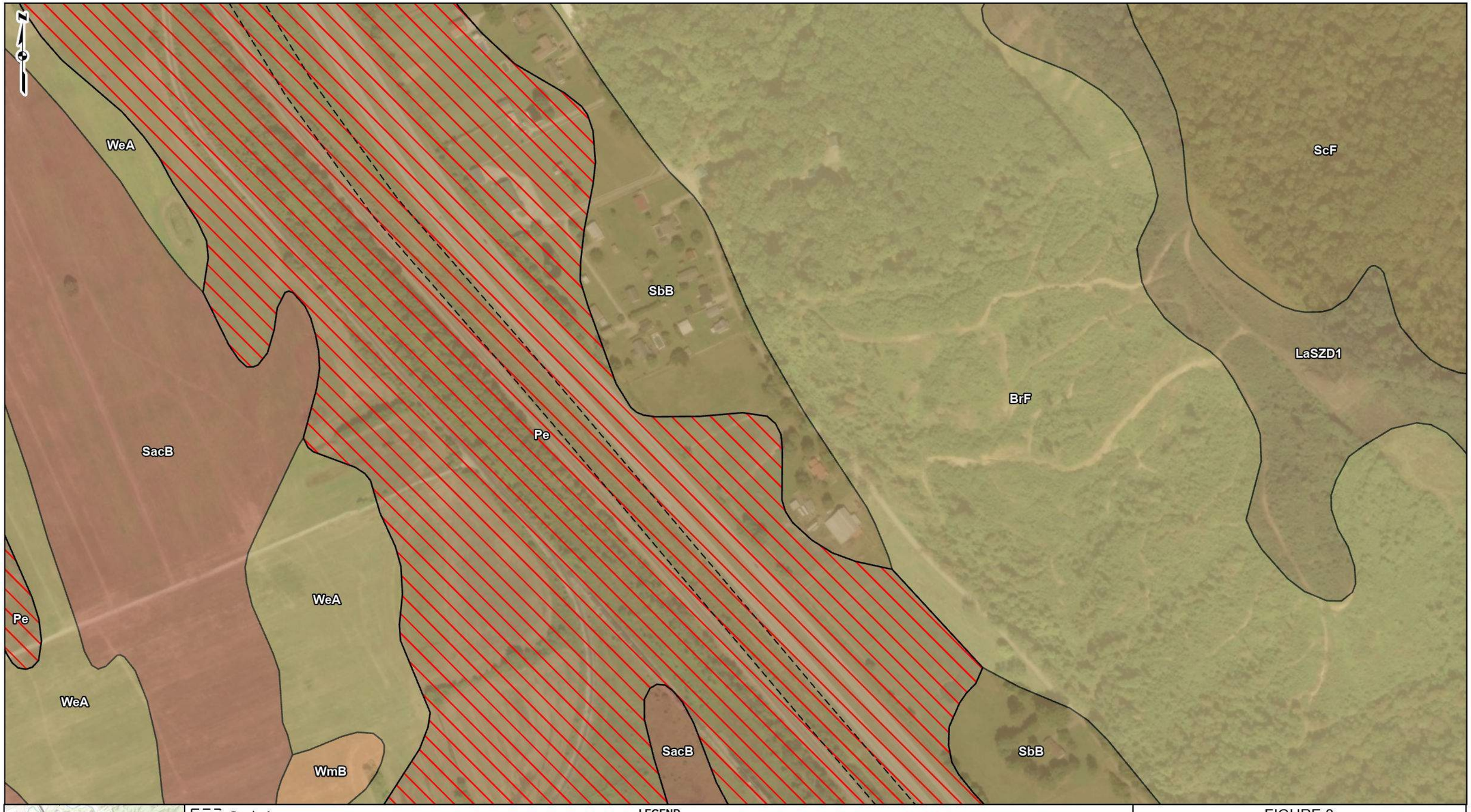

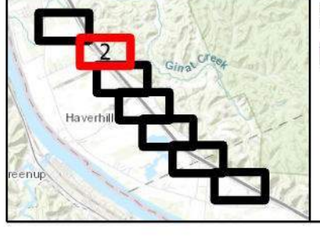

LEGEND

Study Area

Hydric Soils of Ohio

0 75 150 300 Feet

FIGURE 3
SOIL SURVEY OF OHIO
SHEET 2 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
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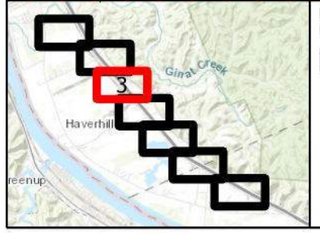

LEGEND

Study Area

Hydric Soils of Ohio

0 75 150 300 Feet

FIGURE 3
SOIL SURVEY OF OHIO
SHEET 3 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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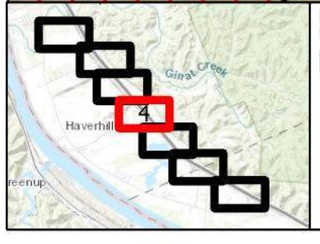

LEGEND

- Study Area
- Hydric Soils of Ohio

0 75 150 300 Feet

FIGURE 3
SOIL SURVEY OF OHIO
SHEET 4 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS	DATE: 5/27/2026
CHECKED: ODS	APPROVED: JVR

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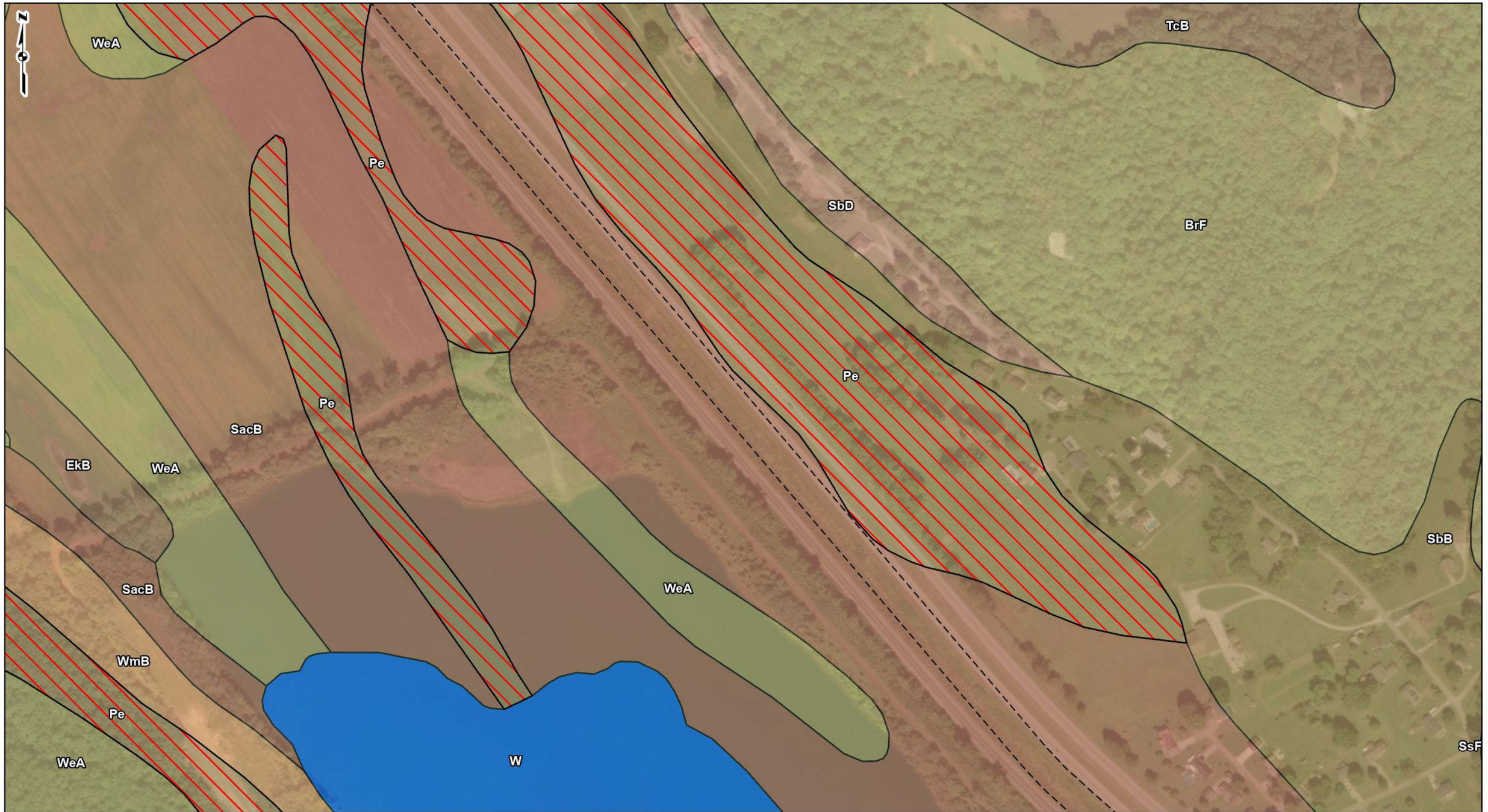

LEGEND

Study Area

Hydric Soils of Ohio

0 75 150 300 Feet

FIGURE 3
SOIL SURVEY OF OHIO
SHEET 5 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
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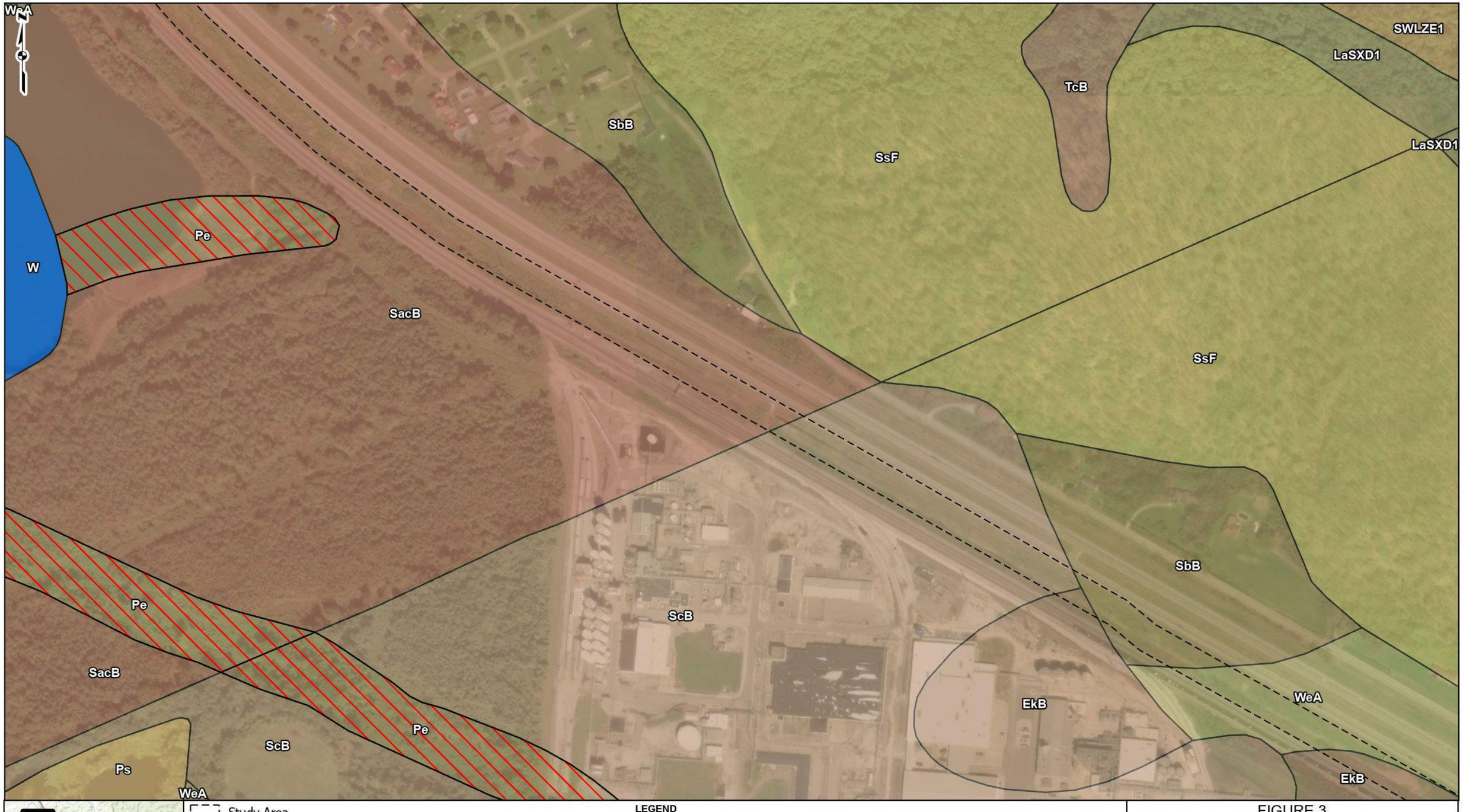

LEGEND

Study Area

Hydric Soils of Ohio

0 75 150 300 Feet

FIGURE 3
SOIL SURVEY OF OHIO
SHEET 6 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
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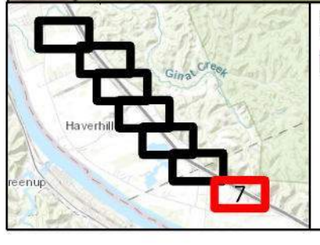

LEGEND

Study Area

Hydric Soils of Ohio

0 75 150 300 Feet

FIGURE 3
SOIL SURVEY OF OHIO
SHEET 7 OF 7

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS DATE: 5/27/2026
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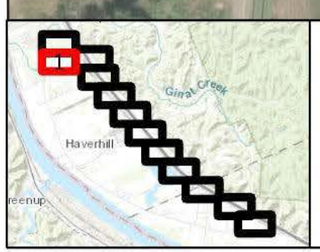
N

WL-A-PEM
0.76 AC DELINEATED

WL-J-PEM
0.36 AC DELINEATED

WL-F-PEM
0.05 AC DELINEATED

DP A4
DP B1
DP B2
DP A3
DP F1
DP F2
DP B3
DP B4
DP 6
DP H5
WL-H-PEM
0.63 AC DELINEATED
DP H2
WL-B-PEM
0.27 AC DELINEATED
CONTINUES OFF-SITE
DP J2
DP 7
DP I2
DP I1
DP H1
DP A2
DP 8
DP J1
DP A1
WL-I-PEM
0.02 AC DELINEATED
DP H6
DP 9
DP H3
DP H4
POTENTIAL OFF-SITE
WETLAND
WL-H-PFO
0.08 AC DELINEATED
CONTINUES OFF-SITE
WL-J-PEM
0.34 AC DELINEATED
DEBRIS AND LIVESTOCK
BONE PILE OBSERVED
WL-A-PEM
0.76 AC DELINEATED
Gina Creek
Gallia Pike



LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 1 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
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DATE: 5/29/2026
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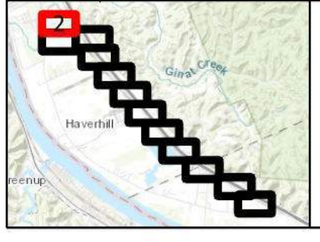

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 2 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
CHECKED: ODS
DATE: 5/29/2026
APPROVED: JVR

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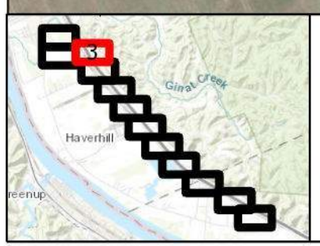

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 3 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
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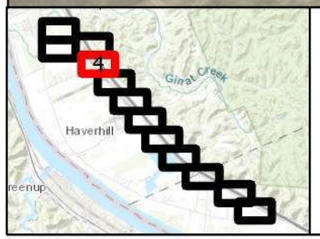

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 4 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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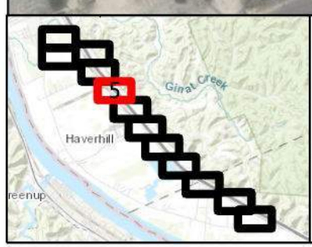

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 5 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
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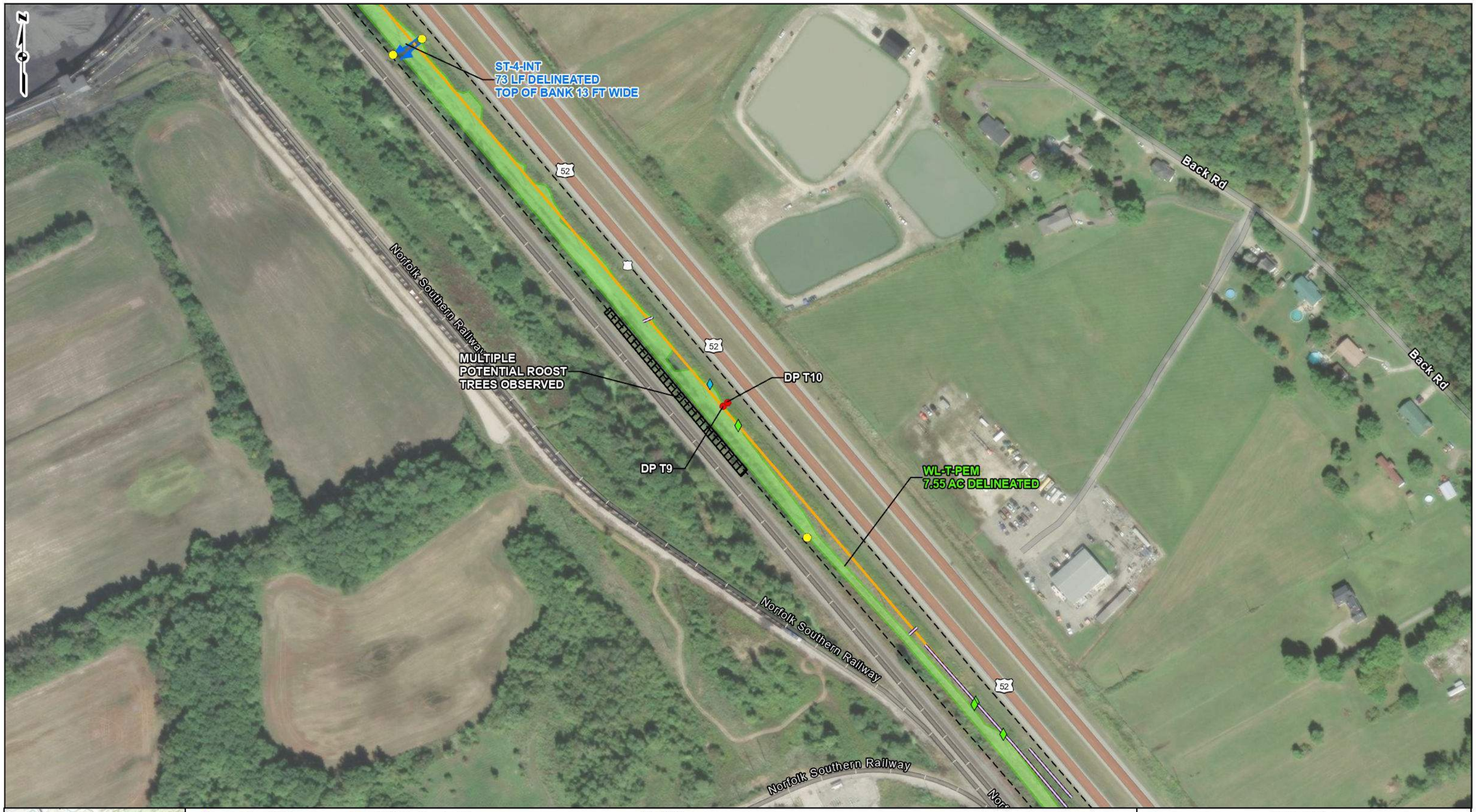

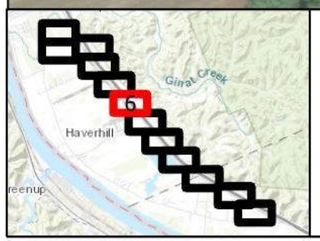

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 6 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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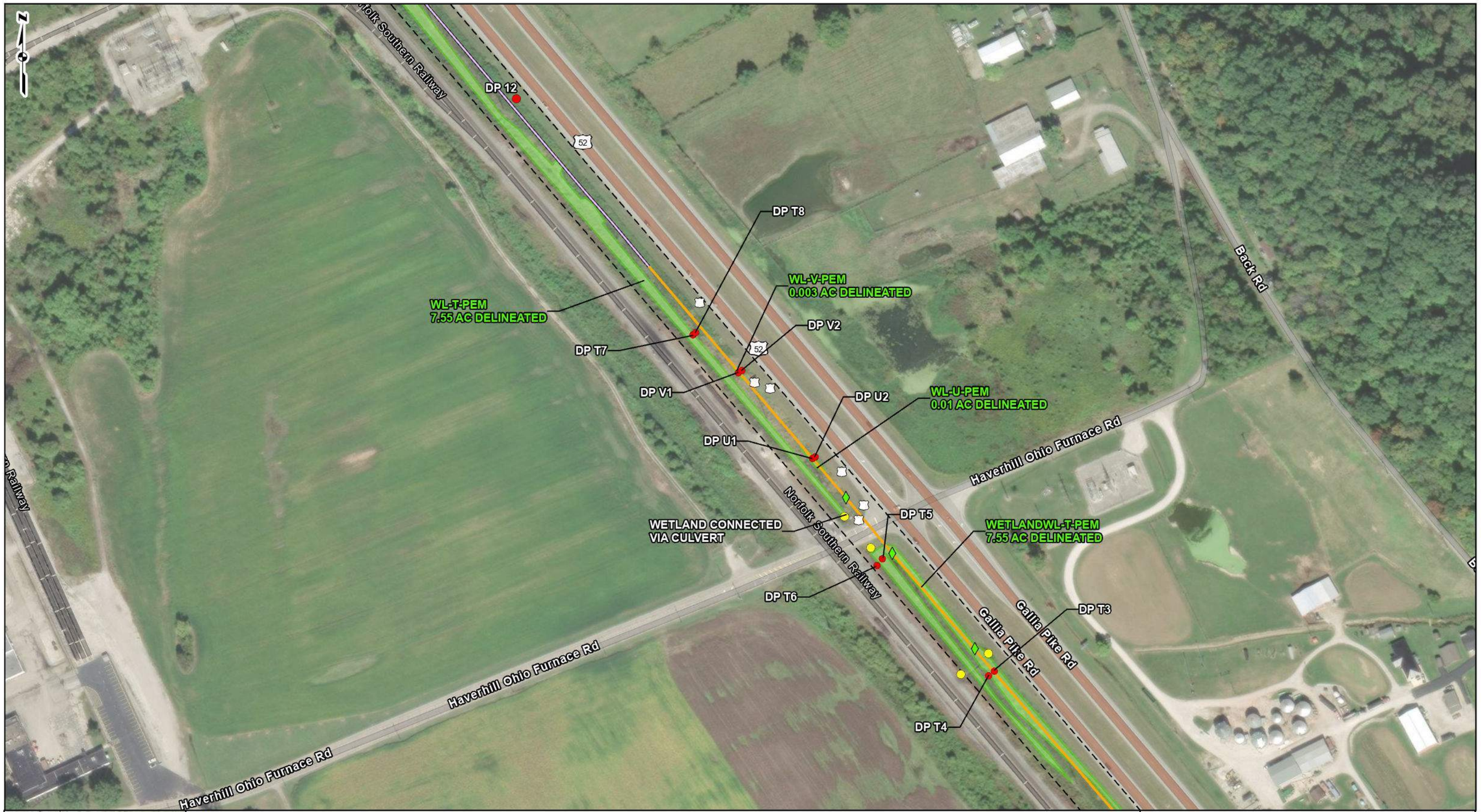

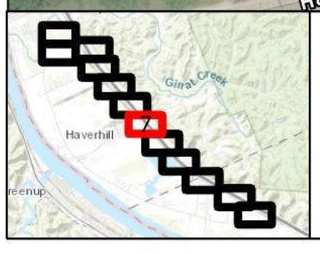

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 7 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 8 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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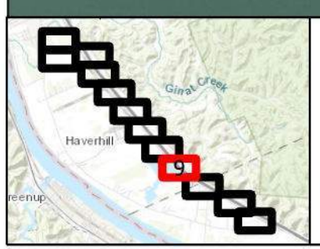

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 9 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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DATE: 5/29/2026
APPROVED: JVR

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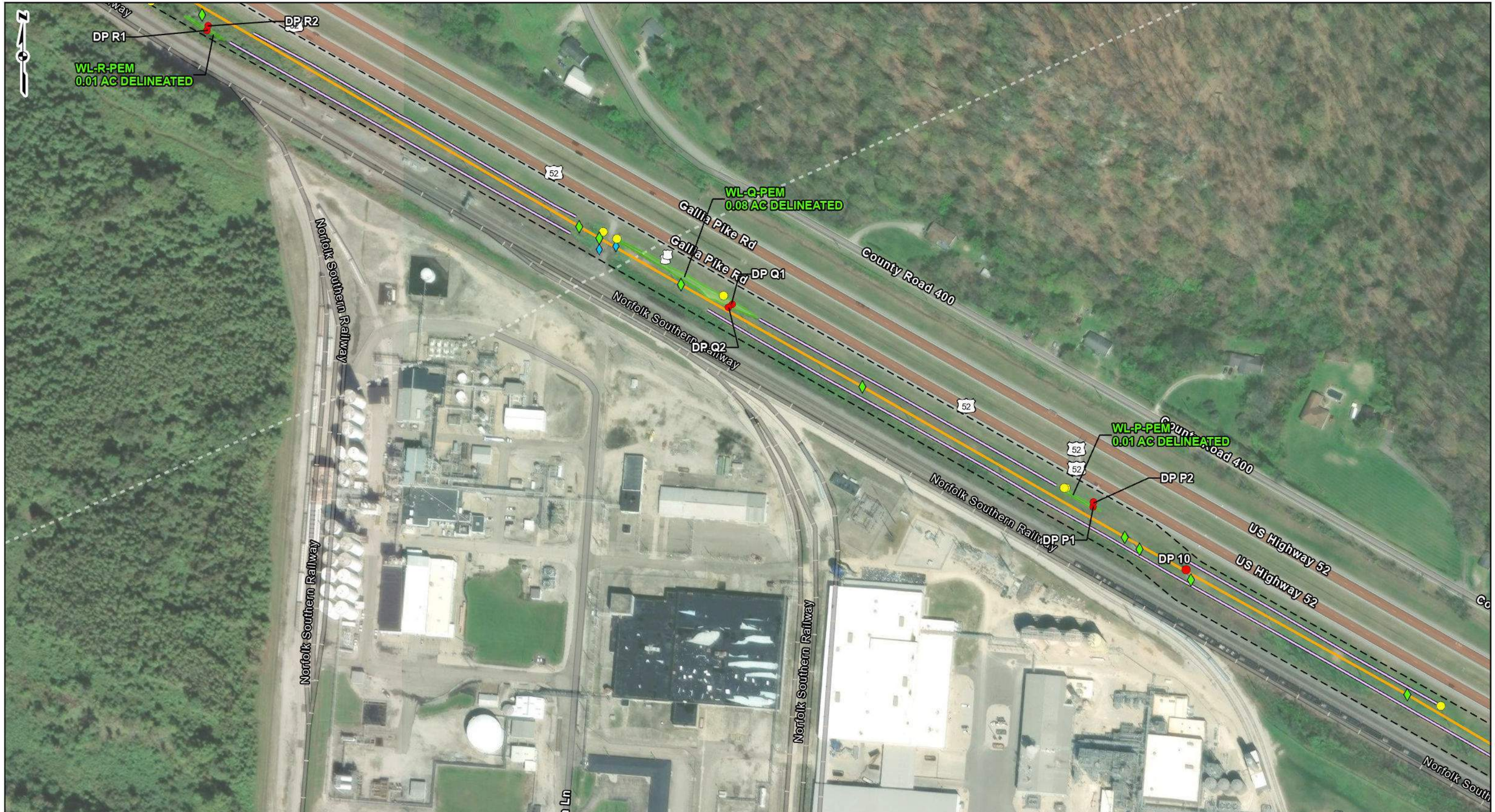

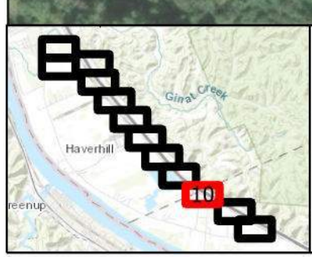

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 10 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
CHECKED: ODS
DATE: 5/29/2026
APPROVED: JVR

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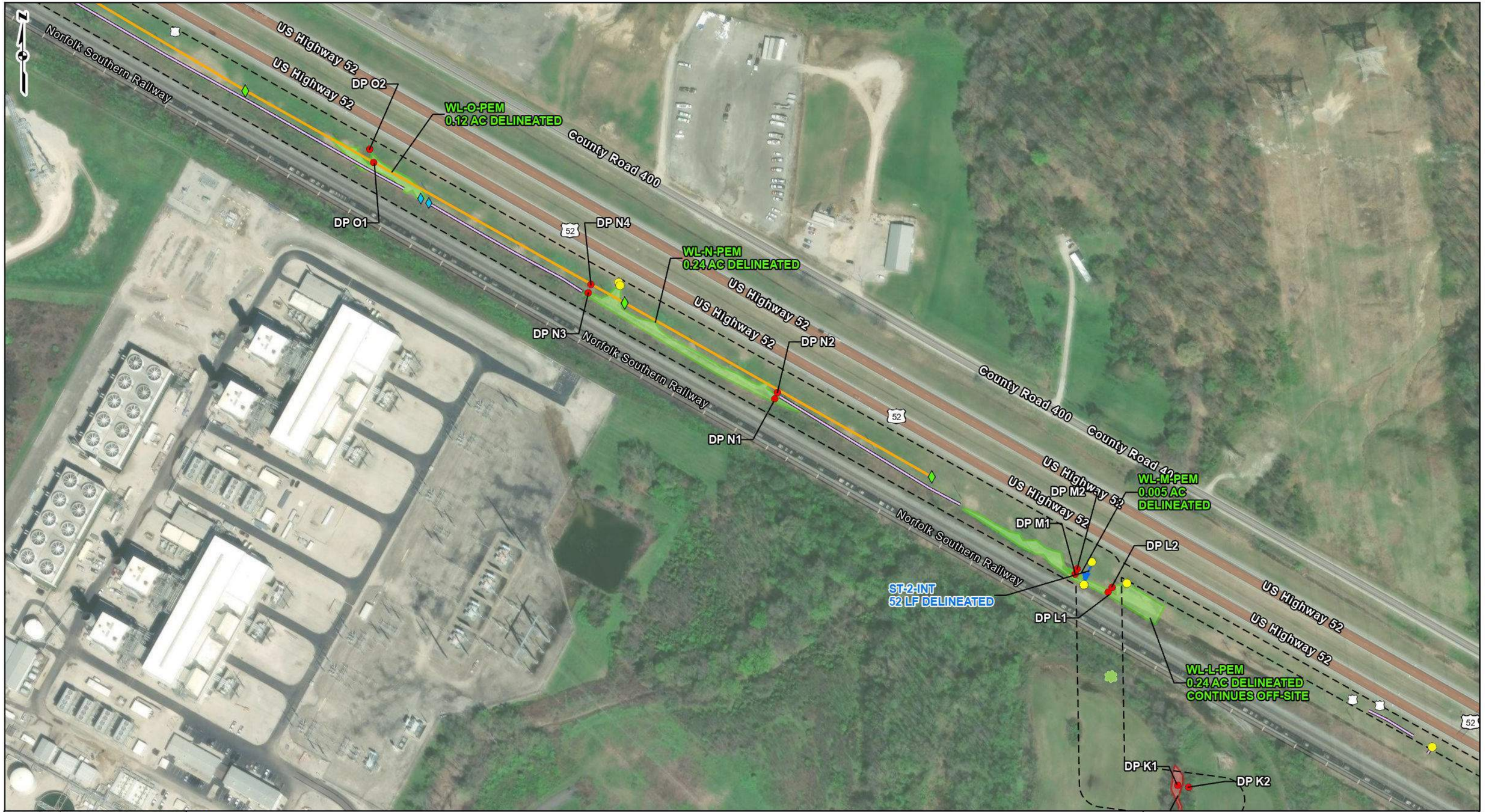

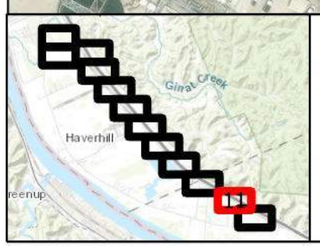

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 11 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

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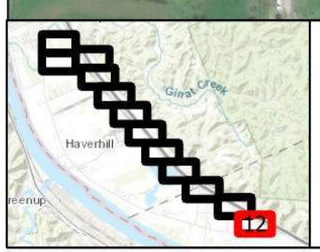

LEGEND

- Existing Utility
- Existing Culvert
- Existing Sign
- Potential Obstacle
- Potential Roost Tree
- Data Point
- Field Delineated Stream
- Upland Drainage Feature
- Gas Line (Approx)
- Study Area
- Forested Wetland
- Emergent Wetland

0 50 100 200 Feet

FIGURE 4
DELINEATION MAP
SHEET 12 OF 12

RAZZLER STATION AND TRANSMISSION LINE
AMERICAN ELECTRIC POWER

DRAWN BY: AJS
CHECKED: ODS
DATE: 5/29/2026
APPROVED: JVR

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Appendix A

ETR Species Correspondence 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

May 8, 2026

Project Code: 2026-0081303

Dear Mr. Santiago:

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, endangered, and proposed 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: 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 this seasonal restriction on tree cutting and impacting suitable bridge/culvert roosts is not possible, a summer presence/absence survey may be conducted for Indiana bats and northern long-eared bats. 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. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

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. 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

June 1, 2026

Alexander Santiago
V3 Companies
550 Polaris Parkway, Suite 250
Westerville, Ohio 43082

Re: 26-0711_Razzler Station and Transmission Line

Project: The proposed project involves the construction of the Razzler Station and a 4.5-mile transmission line.

Location: The proposed project is located in Green Township of Scioto County and Hamilton Township of Lawrence County, Ohio.

Center Coordinates: (38.5955, -82.8123)

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

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

Round-fruited Hedge-hyssop (*Gratiola virginiana*), E
Short's Hedge-hyssop (*Gratiola viscidula*), T
Featherfoil (*Hottonia inflata*), E
Spotted Pondweed (*Potamogeton pulcher*), E
Low Spearwort (*Ranunculus pusillus*), T
Lance-leaved Violet (*Viola lanceolata*), P
Shoal chub (*Macrhybopsis hyostoma*), E
Channel Darter (*Percina copelandi*), T
River Darter (*Percina shumardi*), T
Eastern Spadefoot (*Scaphiopus holbrookii*), E
Threehorn Wartyback (*Obliquaria reflexa*), SC

Beech-sugar maple forest plant community
Floating-leaved marsh plant community
Mixed emergent marsh plant community
Submergent marsh plant community

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. Records for high quality plant communities indicate the presence of sites that are in our inventory of the best remaining examples of Ohio's pre-settlement ecosystems.

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.

Of the species and features listed above, Round-fruited Hedge-hyssop and Low Spearwort are recorded within the boundaries of the specified project area. Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

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

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

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally 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 species of bats 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. If trees are present within the project area, and trees must be cleared, 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) ≥ 20" if possible. If trees are present within the project area, and trees and/or tree limbs must be cleared during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any clearing. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the OHIO DIVISION OF WILDLIFE AND U.S. FISH AND WILDLIFE SERVICE (OH-FIELD OFFICE) JOINT GUIDANCE FOR BAT SURVEYS. If state-listed bats are documented, DOW recommends tree clearing only occur from October 1 through March 31. However, limited summer tree clearing may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

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 linked above. 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*)
purple cat's paw (*Epioblasma obliquata*)
fanshell (*Cyprogenia stegaria*)
rayed bean (*Villosa fabalis*)
northern riffleshell (*Epioblasma torulosa rangiana*)
sheepnose (*Plethobasus cyphyus*)
pink mucket (*Lampsilis abrupta*)
snuffbox (*Epioblasma triquetra*)

State Endangered
butterfly (*Ellipsaria lineolata*)
Ohio pigtoe (*Pleurobema cordatum*)
ebonyshell (*Reginaia ebena*)
pyramid pigtoe (*Pleurobema rubrum*)
elephant-ear (*Elliptio crassidens crassidens*)
sharp-ridged pocketbook (*Lampsilis ovate*)
little spectaclecase (*Villosa lienosa*)
wartyback (*Cyclonaias nodulata*)
long-solid (*Fusconaia subrotunda*)
washboard (*Megalonaias nervosa*)
monkeyface (*Theliderma metanevra*)
yellow sandshell (*Lampsilis teres*)

State Threatened
Salamander Mussel (*Simpsonaias ambigua*)

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*)
northern madtom (*Noturus stigmosus*)
gilt darter *(Percina evides)*
popeye shiner (*Notropis ariommus*)
goldeye (*Hiodon alosoides*)
shoal chub (*Macrhybopsis hyostoma*)
mountain madtom (*Noturus eleutherus*)
shortnose gar (*Lepisosteus platostomus*)
northern brook lamprey (*Ichthyomyzon fossor*)
shovelnose sturgeon (*Scaphirhynchus- platorynchus*)

State Threatened
American eel (*Anguilla rostrata*)
paddlefish (*Polyodon spathula*)
blue sucker (*Cycleptus elongatus*)
river darter (*Percina shumardi*)
channel darter (*Percina copelandi*)

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 eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. This long-lived, entirely aquatic salamander inhabits perennial streams with large flat rocks. In-water work in hellbender streams can reduce availability of large cover rocks and can destroy hellbender nests and/or kill adults and juveniles. The contribution of additional sediment to hellbender streams can smother large cover rocks and gravel/cobble substrate (used by juveniles), making them unsuitable for refuge and nesting. Projects that contribute to altered flow regimes (e.g., by increasing areas of impervious surfaces or modifying the floodplain) can also adversely affect hellbender habitat. Due to the location, this project is not likely to impact this species.

The project is within the range of the timber rattlesnake (*Crotalus horridus 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 also 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 green salamander (*Aneides aeneus*), a state endangered amphibian. 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.

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.

Natural Areas and Preserves: The Division of Natural Areas and Preserves has the following Rare Plant comments.

One rare plant species, low spearwort (*Ranunculus pusillus,* state threatened), has been recorded within the footprint of the Razzler Station and Transmission Line project. Due to the possible disruption of this species, a pre-construction survey of the proposed project site, including all laydown areas, should be conducted to ensure that this plant and any other rare species within the proposed construction limits are avoided and not impacted. Long term protection of rare flora species should also be considered and should include limiting the use of herbicidal spraying in their vicinity. For survey coordination or further discussion, please contact the Division of Natural Areas and Preserves' Chief Botanist, Rick Gardner. Mr. Gardner can be contacted directly at richard.gardner@dnr.ohio.gov or (614) 265-6419.

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 B

SITE Photographs

Project Name: Razzler

Site Photographs
WL- A-PEM

Photo 1

WL-A-PEM

Wetland

Photo 2

WL-A-PEM

Wetland

Photo 3

WL-A-PEM

Wetland

Photo 4

WL-A-PEM

Wetland

DP A4

Photo 5

Upland area adjacent to WL-A-PEM

Upland

Photo 6

Upland area adjacent to WL-A-PEM

Upland

WL B

Photo 7

WL-B-PEM

Wetland

Photo 8

WL-B-PEM

Wetland

Photo 9

WL-B-PEM

Wetland

Photo 10

WL-B-PEM

Wetland

DP B2

Photo 11

Upland area adjacent to WL-B-PEM

Upland

Photo 12

Upland area adjacent to WL-B-PEM

Upland

WL C

Photo 13

WL-C-PEM

Wetland

Photo 14

WL-C-PEM

Wetland

Photo 15

WL-C-PEM

Wetland

Photo 16

WL-C-PEM

Wetland

DP C2

Photo 17

Upland area to WL-C-PEM

Upland

Photo 18

Upland area to WL-C-PEM

Upland

WL-D-PEM

Photo 19

WL-D-PEM

Wetland

Photo 20

WL-D-PEM

Wetland

Photo 21

WL-D-PEM

Wetland

Photo 22

WL-D-PEM

Wetland

Photo 23

Upland area adjacent to WL-D-PEM

Upland

Photo 24

Upland area adjacent to WL-D-PEM

Upland

Photo 25

WL-E-PEM

Wetland

Photo 26

WL-E-PEM

Wetland

Photo 27

WL-E-PEM

Wetland

Photo 28

WL-E-PEM

Wetland

DP E2

Photo 29

Upland area adjacent to WL-E-PEM

Upland

Photo 30

Upland area adjacent to WL-E-PEM

Upland

Photo 31

WL-F-PEM

Wetland

Photo 32

WL-F-PEM

Wetland

Photo 33

WL-F-PEM

Wetland

Photo 34

WL-F-PEM

Wetland

DP F2

Photo 35

Upland area adjacent to WL-F-PEM

Upland

Photo 36

DP F2

Upland

Photo 37

WL-G-PFO

Wetland

Photo 38

WL-G-PFO

Wetland

Photo 39

WL-G-PFO

Wetland

Photo 40

WL-G-PFO

Wetland

DP G2

Photo 41

Upland area adjacent to WL-G-PFO

Upland

Photo 42

Upland area adjacent to WL-G-PFO

Upland

Photo 43

WL-H-PEM

Wetland

Photo 44

WL-H-PEM

Photo 45

WL-H-PEM

Photo 46

WL-H-PEM

DP H2

Photo 47

Upland area adjacent to WL-H-PEM

Upland

Photo 48

Upland area adjacent to WL-H-PEM

Upland

WL H PFO

Photo 49

WL H northwest

Wetland

Photo 50

WL H southwest

Wetland

Photo 51

WL H northeast

Wetland

Photo 52

WL H northwest

Wetland

Photo 53

Upland area adjacent to WL-H-PFO

Upland

Photo 54

Upland area adjacent to WL-H-PFO

Upland

Photo 55

WL-I-PEM

Wetland

Photo 56

WL-I-PEM

Wetland

Photo 57

WL-I-PEM

Wetland

Photo 58

WL-I-PEM

Wetland

Photo 59

Upland area adjacent to WL-I-PEM

Upland

Photo 60

Upland area adjacent to WL-I-PEM

WL J

Photo 61

WL-J-PEM

Wetland

Photo 62

WL -J-PEM

Wetland

Photo 63

WL -J-PEM

Wetland

Photo 64

WL -J-PEM

Wetland

DP J2

Photo 65

Upland area adjacent to WL-J-PEM

Upland

Photo 66

Upland area adjacent to WL-J-PEM

Upland

Photo 67

WL-K-PFO

Wetland

Photo 68

WL-K-PFO

Wetland

Photo 69

WL-K-PFO

Wetland

Photo 70

WL-K-PFO

Wetland

Photo 71

Upland area adjacent to WL-K-PFO

Upland

Photo 72

Upland area adjacent to WL-K-PFO

Upland

Photo 73

WL-L-PEM

Wetland

Photo 74

WL-L-PEM

Wetland

Photo 75

WL-L-PEM

Wetland

Photo 76

WL-L-PEM

Wetland

Photo 77

Upland area adjacent to WL-L-PEM

Upland

Photo 78

Upland area adjacent to WL-L-PEM

Upland

Photo 79

WL-M-PEM

Wetland

Photo 80

WL-M-PEM

Wetland

Photo 81

WL-M-PEM

Wetland

Photo 82

WL-M-PEM

Wetland

Photo 83

Upland area adjacent to DP-M-PEM

Upland

Photo 84

Upland area adjacent to DP-M-PEM

Upland

Photo 85

WL-N-PEM

Wetland

Photo 86

WL-N-PEM

Wetland

Photo 87

WL-N-PEM

Wetland

Photo 88

WL-N-PEM

Wetland

Photo 89

Upland area adjacent to WL-N-PEM

Upland

Photo 90

Upland area adjacent to WL-N-PEM

Upland

Photo 91

WL-O-PEM

Wetland

Photo 92

WL-O-PEM

Wetland

Photo 93

WL-O-PEM

Wetland

Photo 94

WL-O-PEM

Wetland

Photo 95

Upland area adjacent to WL-O-PEM

Upland

Photo 96

Upland area adjacent to WL-O-PEM

Upland

Photo 97

WL-P-PEM

Wetland

Photo 98

WL-P-PEM

Wetland

Photo 99

WL-P-PEM

Wetland

Photo 100

WL-P-PEM

Wetland

Photo 101

Upland area adjacent to WL-P-PEM

Upland

Photo 102

Upland area adjacent to WL-P-PEM

Upland

Photo 103

WL-Q-PEM

Wetland

Photo 104

WL-Q-PEM

Wetland

Photo 105

WL-Q-PEM

Wetland

Photo 106

WL-Q-PEM

Wetland

Photo 107

Upland area adjacent to WL-Q-PEM

Upland

Photo 108

Upland area adjacent to WL-Q-PEM

Upland

Photo 109

WL-R-PEM

Wetland

Photo 110

WL-R-PEM

Wetland

Photo 111

WL-R-PEM

Wetland

Photo 112

WL-R-PEM

Photo 113

Upland area adjacent to WL-R-PEM

Upland

Photo 114

Upland area adjacent to WL-R-PEM

Upland

Photo 115

WL-S-PEM

Wetland

Photo 116

WL-S-PEM

Wetland

Photo 117

WL-S-PEM

Wetland

Photo 118

WL-S-PEM

Wetland

Photo 119

WL-S-PEM

Upland

Photo 120

WL-S-PEM

Photo 121

Representative photo of WL-T-PEM

Wetland

Photo 122

Representative photo of WL-T-PEM

Photo 123

Representative photo of WL-T-PEM

Photo 124

Representative photo of WL-T-PEM

Photo 125

Representative photo of upland area adjacent to WL-T-PEM

Upland

Photo 126

Representative photo of upland area adjacent to WL-T-PEM

Upland

WL U

Photo 127

WL-U-PEM

Wetland

Photo 128

WL-U-PEM

Wetland

Photo 129

WL-U-PEM

Wetland

Photo 130

WL-U-PEM

Wetland

Photo 131

Upland area adjacent to WL-U-PEM

Upland

Photo 132

Upland area adjacent to WL-U-PEM

Upland

Photo 133

WL-V-PEM

Wetland

Photo 134

WL-V-PEM

Wetland

Photo 135

WL-V-PEM

Wetland

Photo 136

WL-V-PEM

Wetland

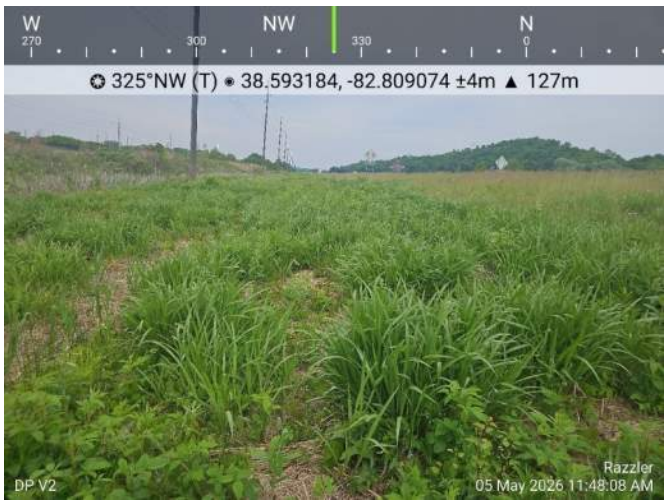

Photo 137

Upland area adjacent to WL-V-PEM

Upland

Photo 138

Upland area adjacent to WL-V-PEM

Upland

Photo 139

WL-W-PEM

Wetland

Photo 140

WL-W-PEM

Wetland

Photo 141

WL-W-PEM

Wetland

Photo 142

WL-W-PEM

Wetland

Photo 143

Upland area adjacent to WL-W-PEM

Upland

Photo 144

Upland area adjacent to WL-W-PEM

Upland

Photo 145

WL-X-PEM

Photo 146

WL-X-PEM

Wetland

Photo 147

WL-X-PEM

Wetland

Photo 148

WL-X-PEM

Wetland

Photo 149

WL-X-PEM

Upland

Photo 150

WL-X-PEM

Upland

WL-Y-PEM

Photo 151

WL-Y-PEM

Wetland

Photo 152

WL-Y-PEM

Wetland

Photo 153

WL-Y-PEM

Wetland

Photo 154

WL-Y-PEM

Wetland

Photo 155

Upland area adjacent to WL-Y-PEM

Upland

Photo 156

Upland area adjacent to WL-Y-PEM

Upland

DP 1

Photo 157

mailto:V3N@turalR3sources

Upland

Photo 158

Data Point 1

Upland

DP 2

Photo 159

Data Point 2

Upland

Photo 160

Data Point 2

Upland

DP 3

Photo 161

Data Point 3

Upland

Photo 162

Data Point 3

Upland

DP 4

Photo 163

Data Point 4

Upland

Photo 164

Data Point 4

Upland

DP 5

Photo 165

Data Point 5

Upland

Photo 166

Data Point 5

Upland

DP 6

Photo 167

Data Point 6

Upland

Photo 168

Data Point 6

Upland

Photo 169

Data Point 7

Upland

Photo 170

Data Point 7

Upland

Photo 171

Data Point 8

Upland

Photo 172

Data Point 8

Upland

Photo 173

Data Point 9

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Photo 174

Data Point 9

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Photo 175

Data Point 10

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Photo 176

Data Point 10

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Photo 177

Data Point 11

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Photo 178

Data Point 11

Upland

Photo 179

Data Point 12

Upland

Photo 180

Data Point 12

Upland

Photo 181

Data Point 13

Upland

Photo 182

Data Point 13

Upland

Photo 183

Data Point 14

Upland

Photo 184

Data Point 14

Upland

Stream 1

Photo 185

Stream 1 upstream

Photo 186

Stream 1 downstream

Stream 2

Photo 187

Stream 2 upstream

Photo 188

Stream 2 downstream

Stream 3

Photo 189

Stream 3 upstream

Photo 190

Stream 3 downstream

Stream 4

Photo 191

Stream 4 upstream

Photo 192

Stream 4 downstream

Photo 193

Stream 5 upstream

Photo 194

Stream 6 downstream

Appendix C

Data Forms

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.614041 | Long: -82.839452 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Scleranthus annuus	75	Y	FACU
2. Capsella bursa-pastoris	10	N	FACU
3. Ranunculus sardous	5	N	FAC
4. Allium canadense	2	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	92.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	87	x 4 =	348
UPL species	0	x 5 =	0
Column Totals:	92 (A)		363.00 (B)

Prevalence Index = B/A = 3.95

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP 1

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.616094 | Long: -82.835135 | Datum: WGS84
Soil Map Unit Name: Elkinsville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Hordeum pusillum	40	Y	FAC
2. Ranunculus abortivus	35	Y	FACW
3. Geranium carolinianum	20	Y	UPL
4. Erigeron philadelphicus	5	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	100 (A)		300.00 (B)

Prevalence Index = B/A = 3.0

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

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

Hydrophytic Vegetation Present? Yes ✓ No ___

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

AGENCY DISCLOSURE NOTIFICATION

The public reporting burden for this collection of information, OMB Control Number 0710-0024, is estimated to average 30 minutes per response, including the timefor reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services,at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR REQUEST TO THE ABOVE EMAIL.**

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 3
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.615287 | Long: -82.837028 | Datum: WGS84
Soil Map Unit Name: Wheeling silt loam, 3 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Scleranthus annuus	40	Y	FACU
2. Ranunculus sardous	15	Y	FAC
3. Glycine max residue	10	N	UPL
4. Hordeum pusillum	5	N	FAC
5. Allium canadense	5	N	FACU
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	45	x 4 =	180
UPL species	10	x 5 =	50
Column Totals:	75 (A)		290.00 (B)

Prevalence Index = B/A = 3.87

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP 3

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 4
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612646 | Long: -82.833379 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rumex acetosella	40	Y	FACU
2. Alopecurus carolinianus	15	Y	FACW
3. Mummenhoffia alliacea	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	60 (A)		215.00 (B)

Prevalence Index = B/A = 3.58

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/4	100					SICL	
7-18	10YR 4/4	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 5
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.613514 | Long: -82.830896 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa multiflora	15	Y	FACU
2. Ulmus americana	10	Y	FACW
3. Acer saccharum	5	N	FACU
4.			
5.			
	30.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	5	Y	FACU
2. Toxicodendron radicans	2	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	7.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	40	Y	FACU
2.			
	40.0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	2	x 3 =	6
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	77 (A)		286.00 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP 5

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 6
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612537 | Long: -82.835736 | Datum: WGS84
Soil Map Unit Name: Wheeling silt loam, 3 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Cerastium glomeratum	40	Y	FACU
2. Alopecurus carolinianus	20	Y	FACW
3. Allium canadense	10	N	FACU
4. Ranunculus sardous	10	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	80.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	80 (A)		270.00 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP 6

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 7
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612016 | Long: -82.837356 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	40	Y	FAC
2. Quercus palustris	25	Y	FACW
3.			
4.			
5.			
	65.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa multiflora	15	Y	FACU
2. Quercus palustris	5	Y	FACW
3. Aesculus flava	5	Y	FACU
4. Asimina triloba	5	Y	FAC
5.			
	30.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Toxicodendron radicans	35	Y	FAC
2. Carex blanda	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	40	Y	FACU
2.			
	40.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
Total Number of Dominant Species Across All Strata: 8 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 62.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	85	x 3 =	255
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	175 (A)		555.00 (B)

Prevalence Index = B/A = 3.17

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

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

Hydrophytic Vegetation Present? Yes ✓ No ___

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

SOIL

Sampling Point: DP 7

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 8
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611826 | Long: -82.837947 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus pratensis	85	Y	FACW
2. Ranunculus sardous	10	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		200.00 (B)

Prevalence Index = B/A = 2.11

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

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

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: DP 8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 9
Investigator(s): | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612646 | Long: -82.833379 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rumex acetosella	40	Y	FACU
2. Alopecurus carolinianus	15	Y	FACW
3. Mummenhoffia alliacea	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	5	x 5 =	25
Column Totals:	60 (A)		215.00 (B)

Prevalence Index = B/A = 3.58

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP 9

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/4	100					SICL	
7-18	10YR 4/4	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 10
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 04 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.577607 | Long: -82.787138 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	55	Y	FACU
2. Galium mollugo	10	N	FACU
3. Toxicodendron radicans	3	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	68.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	10	Y	FACU
2.			
	10.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	3	x 3 =	9
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	78 (A)		309.00 (B)

Prevalence Index = B/A = 3.96

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP 10

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	90	10YR 2/2	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ✓ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 11
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.584169 | Long: -82.799273 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No ✓
Hydric Soil Present?	Yes ___	No ✓
Wetland Hydrology Present?	Yes ___	No ✓

Is the Sampled Area within a Wetland? Yes ___ No ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	55	Y	FACU
2. Dichanthelium clandestinum	5	N	FACW
3. Asclepias syriaca	5	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	65.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	65 (A)		250.00 (B)

Prevalence Index = B/A = 3.85

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

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

Hydrophytic Vegetation Present? Yes ___ No ✓

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

SOIL

Sampling Point: DP 11

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 12
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.594814 | Long: -82.810818 | Datum: WGS84
Soil Map Unit Name: | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dipsacus laciniatus	25	Y	UPL
2. Sanguinaria canadensis	20	Y	FACU
3. Toxicodendron radicans	10	N	FAC
4. Asclepias syriaca	10	N	FACU
5. Rubus allegheniensis	5	N	FACU
6.			
7.			
8.			
9.			
10.			
	70.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	35	x 4 =	140
UPL species	25	x 5 =	125
Column Totals:	70 (A)		295.00 (B)

Prevalence Index = B/A = 4.21

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

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

Hydrophytic Vegetation Present? Yes ___ No ✓

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

SOIL

Sampling Point: DP 12

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 13
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.602957 | Long: -82.819705 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓
Hydric Soil Present?	Yes ____	No ✓
Wetland Hydrology Present?	Yes ____	No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	40	Y	FAC
2. Asclepias syriaca	15	Y	FACU
3. Dipsacus laciniatus	15	Y	UPL
4. Rubus allegheniensis	15	Y	FACU
5. Solidago canadensis	5	N	FACU
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Calystegia sepium	5	Y	FAC
2.			
	5.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 40.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	35	x 4 =	140
UPL species	15	x 5 =	75
Column Totals:	95 (A)		350.00 (B)

Prevalence Index = B/A = 3.68

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP 13

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/3	100					SIL	
4-18	10YR 4/4	100					SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP 14
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.610186 | Long: -82.827429 | Datum: WGS84
Soil Map Unit Name: | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Hemerocallis fulva	45	Y	UPL
2. Solidago canadensis	35	Y	FACU
3. Conium maculatum	10	N	FACW
4. Sambucus canadensis	5	N	UPL
5. Allium canadense	3	N	FACU
6.			
7.			
8.			
9.			
10.			
	98.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	38	x 4 =	152
UPL species	50	x 5 =	250
Column Totals:	98 (A)		422.00 (B)

Prevalence Index = B/A = 4.31

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP 14

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP A1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611548 | Long: -82.838429 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	30	Y	FACW
2. Ranunculus pusillus	20	Y	OBL
3. Glycine max residue	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	55 (A)		105.00 (B)

Prevalence Index = B/A = 1.91

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP A1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	95	7.5YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP A2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611728 | Long: -82.838205 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓
Hydric Soil Present?	Yes ____	No ✓
Wetland Hydrology Present?	Yes ____	No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Geranium carolinianum	40	Y	UPL
2. Ranunculus sardous	25	Y	FAC
3. Glycine max residue	15	N	UPL
4. Cerastium arvense	15	N	FACU
5. Hordeum pusillum	15	N	FAC
6. Packera glabella	2	N	FACW
7.			
8.			
9.			
10.			
	112.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	2	x 2 =	4
FAC species	40	x 3 =	120
FACU species	15	x 4 =	60
UPL species	55	x 5 =	275
Column Totals:	112 (A)		459.00 (B)

Prevalence Index = B/A = 4.1

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)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP A2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP A3
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.613263 | Long: -82.838509 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus pylaei	35	Y	OBL
2. Ranunculus pusillus	25	Y	OBL
3. Alopecurus carolinianus	15	Y	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		90.00 (B)

Prevalence Index = B/A = 1.2

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP A3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP A4
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.613235 | Long: -82.838586 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Ranunculus sardous	40	Y	FAC
2. Hordeum pusillum	35	Y	FAC
3. Glycine max resiude	15	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	75	x 3 =	225
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	90 (A)		300.00 (B)

Prevalence Index = B/A = 3.33

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

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

Hydrophytic Vegetation Present? Yes ✓ No ___

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

SOIL

Sampling Point: DP A4

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP B1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.612969 | Long: -82.839523 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	40	Y	FACW
2. Ranunculus pusillus	15	Y	OBL
3. Gratiola neglecta	2	N	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	57.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	17	x 1 =	17
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	57 (A)		97.00 (B)

Prevalence Index = B/A = 1.7

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP B1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP B2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612946 | Long: -82.839436 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	40	Y	FACW
2. Ranunculus sardous	35	Y	FAC
3. Glycine max residue	20	Y	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	95 (A)		285.00 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP B2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP B3
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.612397 | Long: -82.839361 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	75	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		150.00 (B)

Prevalence Index = B/A = 2.0

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP B3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP B4
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612409 | Long: -82.839289 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ✓	No ___
Hydric Soil Present?	Yes ___	No ✓
Wetland Hydrology Present?	Yes ___	No ✓

Is the Sampled Area within a Wetland? Yes ___ No ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Ranunculus sardous	50	Y	FAC
2. Hordeum pusillum	30	Y	FAC
3. Glycine max resiude	20	Y	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	100 (A)		340.00 (B)

Prevalence Index = B/A = 3.4

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

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

Hydrophytic Vegetation Present? Yes ✓ No ___

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

SOIL

Sampling Point: DP B4

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP C1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.614157 | Long: -82.837137 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	70	Y	FACW
2. Valerianella radiata	10	N	FAC
3. Ranunculus sardous	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		185.00 (B)

Prevalence Index = B/A = 2.18

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP C1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/1	95	7.5YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP C2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.614170 | Long: -82.837135 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Hordeum pusillum	40	Y	FAC
2. Ranunculus parviflorus	40	Y	FAC
3. Glycine max residue	10	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	90 (A)		290.00 (B)

Prevalence Index = B/A = 3.22

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

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

Hydrophytic Vegetation Present? Yes ✓ No ___

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

SOIL

Sampling Point: DP C2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP D1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.614446 | Long: -82.834234 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	70	Y	FACW
2. Ranunculus sardous	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		155.00 (B)

Prevalence Index = B/A = 2.07

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

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

Hydrophytic Vegetation Present? **Yes ✓** **No ____**

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

SOIL

Sampling Point: DP D1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	85	7.5YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP D2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.614364 | Long: -82.834400 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Mummenhoffia alliacea	40	Y	UPL
2. Hordeum pusillum	15	Y	FAC
3. Geranium carolinianum	15	Y	UPL
4. Lepidium densiflorum	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	55	x 5 =	275
Column Totals:	75 (A)		335.00 (B)

Prevalence Index = B/A = 4.47

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP D2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP D3
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.613769 | Long: -82.833910 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus pratensis	70	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		140.00 (B)

Prevalence Index = B/A = 2.0

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP D3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/1	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP D4
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.613805 | Long: -82.833795 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Valerianella radiata	70	Y	FAC
2. Ranunculus sardous	25	Y	FAC
3. Mummenhoffia alliacea	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	100 (A)		310.00 (B)

Prevalence Index = B/A = 3.1

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)

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

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: DP D4

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP E1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.614014 | Long: -82.834482 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	75	Y	FACW
2. Valerianella radiata	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		165.00 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP E1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/1	85	7.5YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP E2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.614073 | Long: -82.834342 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Mummenhoffia alliacea	30	Y	UPL
2. Geranium carolinianum	30	Y	UPL
3. Alopecurus carolinianus	10	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	70 (A)		320.00 (B)

Prevalence Index = B/A = 4.57

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP E2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP E3
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.614532 | Long: -82.834655 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	60	Y	FACW
2. Hordeum pusillum	10	N	FAC
3. Plantago virginica	10	N	FACU
4. Allium canadense	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	85.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	10	x 3 =	30
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	85 (A)		210.00 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP E3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP E4
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.614583 | Long: -82.834541 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Trifolium dubium	75	Y	FACU
2. Geranium carolinianum	15	N	UPL
3. Mummenhoffia alliacea	10	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	25	x 5 =	125
Column Totals:	100 (A)		425.00 (B)

Prevalence Index = B/A = 4.25

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP E4

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP F1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.613194 | Long: -82.832945 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	80	Y	FACW
2. Valerianella radiata	10	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		190.00 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP F1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	95	7.5YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP Y2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 09 T001N R019W
Landform (hillside, terrace, etc.): Slope | Local relief (concave, convex, none): Convex
Slope (%): 3-7 | Lat: 38.571040 | Long: -82.771657 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Plantago lanceolata	35	Y	FACU
2. Poa pratensis	30	Y	FAC
3. Dipsacus laciniatus	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	35	x 4 =	140
UPL species	5	x 5 =	25
Column Totals:	70 (A)		255.00 (B)

Prevalence Index = B/A = 3.64

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP Y2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	93	10YR 5/6	3	C	M	SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP F2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.614004 | Long: -82.833921 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Ranunculus parviflorus	85	Y	FAC
2. Glycine max residue	15	N	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	100 (A)		330.00 (B)

Prevalence Index = B/A = 3.3

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

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

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: DP F2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP G1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.613304 | Long: -82.831810 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Cephalanthus occidentalis	20	Y	OBL
2.			
3.			
4.			
5.			
	20.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Boehmeria cylindrica7D	35	Y	OBL
2. Leersia virginica	15	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	55	x 1 =	55
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		85.00 (B)

Prevalence Index = B/A = 1.21

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP G1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	85	7.5YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP G2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.613245 | Long: -82.831734 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Celtis occidentalis	30	Y	FAC
2. Prunus serotina	30	Y	FACU
3. Robinia pseudoacacia	10	N	FACU
4. Cercis canadensis	5	N	FACU
5.			
	75.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa multiflora	25	Y	FACU
2. Sassafras albidum	5	N	FACU
3. Quercus muehlenbergii	5	N	FACU
4.			
5.			
	35.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rubus allegheniensis	10	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	60	Y	FACU
2. Toxicodendron radicans	5	N	FAC
	65.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 20.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	150	x 4 =	600
UPL species	0	x 5 =	0
Column Totals:	185 (A)		705.00 (B)

Prevalence Index = B/A = 3.81

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP G2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP H1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.612058 | Long: -82.836054 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	50	Y	FACW
2. Allium canadense	15	N	FACU
3. Ranunculus sardous	10	N	FAC
4. Lepidium densiflorum	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	80.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	15	x 3 =	45
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	80 (A)		205.00 (B)

Prevalence Index = B/A = 2.56

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP H1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/1	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP H2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612111 | Long: -82.835970 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Lepidium densiflorum	20	Y	FAC
2. Hordeum pusillum	15	Y	FAC
3. Ranunculus sardous	15	Y	FAC
4. Cerastium glomeratum	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	55.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	50	x 3 =	150
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	55 (A)		170.00 (B)

Prevalence Index = B/A = 3.09

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

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

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: DP H2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP H3
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.611679 | Long: -82.835898 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharinum	85	Y	FACW
2. Diospyros virginiana	15	N	FAC
3.			
4.			
5.			
	100.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Carex lurida	75	Y	OBL
2. Toxicodendron radicans	10	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	75	x 1 =	75
FACW species	85	x 2 =	170
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	185 (A)		320.00 (B)

Prevalence Index = B/A = 1.73

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP H3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP H4
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611637 | Long: -82.835854 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Plantago virginica	25	Y	FACU
2. Hordeum pusillum	25	Y	FAC
3. Lepidium campestre	10	N	UPL
4. Allium canadense	3	N	FACU
5. Ranunculus sardous	3	N	FAC
6.			
7.			
8.			
9.			
10.			
	66.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	28	x 3 =	84
FACU species	28	x 4 =	112
UPL species	10	x 5 =	50
Column Totals:	66 (A)		246.00 (B)

Prevalence Index = B/A = 3.73

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP H4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	97	10YR 5/6	3	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP H5
Investigator(s): Agnes Marchlewska, Alex Santiaog | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612118 | Long: -82.834843 | Datum: WGS84
Soil Map Unit Name: Elkinsville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Ranunculus sardous	70	Y	FAC
2. Lepidium densiflorum	10	N	FAC
3. Hordeum pusillum	5	N	FAC
4. Allium canadense	3	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	88.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	3	x 4 =	12
UPL species	0	x 5 =	0
Column Totals:	88 (A)		267.00 (B)

Prevalence Index = B/A = 3.03

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP H5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/3	100					SICL	
5-18	10YR 4/1	95	7.5YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP H6
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612124 | Long: -82.834787 | Datum: WGS84
Soil Map Unit Name: Elkinsville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Plantago virginica	55	Y	FACU
2. Hordeum pusillum	10	N	FAC
3. Ranunculus sardous	10	N	FAC
4. Allium canadense	5	N	FACU
5. Erigeron philadelphicus	5	N	FACW
6. Lepidium densiflorum	5	N	FAC
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	25	x 3 =	75
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	90 (A)		325.00 (B)

Prevalence Index = B/A = 3.61

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP H6

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP I1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.612905 | Long: -82.837211 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	40	Y	FACW
2. Lepidium densiflorum	30	Y	FAC
3. Glycine max	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	75 (A)		195.00 (B)

Prevalence Index = B/A = 2.6

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP I1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	7.5YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP I2
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611849 | Long: -82.836682 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Plantago virginica	70	Y	FACU
2. Glycine max residue	10	N	UPL
3. Geranium carolinianum	5	N	UPL
4. Allium canadense	3	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	88.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	73	x 4 =	292
UPL species	15	x 5 =	75
Column Totals:	88 (A)		367.00 (B)

Prevalence Index = B/A = 4.17

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP I2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP J1
Investigator(s): Alex Santiago , Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611895 | Long: -82.837611 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Alopecurus carolinianus	85	Y	FACW
2. Ranunculus sardous	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		185.00 (B)

Prevalence Index = B/A = 2.06

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP J1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/1	90	7.5YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-04-30
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP J2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611890 | Long: -82.837675 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Plantago virginica	70	Y	FACU
2. Glycine max residue	15	N	UPL
3. Geranium carolinianum	5	N	UPL
4. Ranunculus sardous	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	95.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	70	x 4 =	280
UPL species	20	x 5 =	100
Column Totals:	95 (A)		395.00 (B)

Prevalence Index = B/A = 4.16

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP J2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP K1
Investigator(s): Agnes Marchlewska | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.571970 | Long: -82.776477 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Liquidambar styraciflua	20	Y	FACW
2. Acer negundo	15	Y	FAC
3.			
4.			
5.			
	35.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Quercus palustris	10	Y	FACW
2. Acer negundo	10	Y	FAC
3. Liquidambar styraciflua	10	Y	FACW
4. Fraxinus americana	5	N	FACU
5.			
	35.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Carex squarrosa	40	Y	OBL
2. Toxicodendron radicans	15	Y	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	20	Y	FACU
2.			
	20.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
Total Number of Dominant Species Across All Strata: 8 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 87.50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	40	x 2 =	80
FAC species	40	x 3 =	120
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	145 (A)		340.00 (B)

Prevalence Index = B/A = 2.34

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP K1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP K2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.571972 | Long: -82.776393 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 6 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus palustris	30	Y	FACW
2. Acer rubrum	10	Y	FAC
3. Ulmus americana	10	Y	FACW
4.			
5.			
	50.0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa multiflora	20	Y	FACU
2. Robinia pseudoacacia	5	N	FACU
3. Lonicera mackii	3	N	UPL
4.			
5.			
	28.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Toxicodendron radicans	10	Y	FAC
2. Festuca subverticillata	3	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	13.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	35	Y	FACU
2. Parthenocissus quinquefolia	5	N	FACU
	40.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 57.14 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	20	x 3 =	60
FACU species	68	x 4 =	272
UPL species	3	x 5 =	15
Column Totals:	131 (A)		427.00 (B)

Prevalence Index = B/A = 3.26

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

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

Hydrophytic Vegetation Present? Yes ✓ No ____

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

SOIL

Sampling Point: DP K2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/4	100					SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP L1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.573116 | Long: -82.777002 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Leersia oryzoides	20	Y	OBL
2. Juncus pylaei	10	Y	OBL
3. Arthraxon hispidus	10	Y	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	40 (A)		50.00 (B)

Prevalence Index = B/A = 1.25

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP L1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	7.5YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ✓	No ___	Depth (inches): 8
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP L2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.573139 | Long: -82.776985 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	20	Y	FACU
2. Dipsacus laciniatus	15	Y	UPL
3. Onoclea sensibilis	5	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	15	x 5 =	75
Column Totals:	40 (A)		165.00 (B)

Prevalence Index = B/A = 4.12

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP L2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	97	10YR 5/6	3	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP M1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.573220 | Long: -82.777262 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dichanthelium clandestinum	40	Y	FACW
2. Allium canadense	5	N	FACU
3. Rumex crispus	5	N	FAC
4. Onoclea sensibilis	3	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	53.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	43	x 2 =	86
FAC species	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	53 (A)		121.00 (B)

Prevalence Index = B/A = 2.28

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP M1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP M2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.573250 | Long: -82.777255 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rubus allegheniensis	10	Y	FACU
2.			
3.			
4.			
5.			
	10.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	60	Y	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	5	Y	FACU
2.			
	5.0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	75 (A)		300.00 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP M2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP N1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.574272 | Long: -82.779579 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 2 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	60	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60.0	=Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	60 (A)		120.00 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP N1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP N2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.574319 | Long: -82.779566 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 2 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dichanthelium clandestinum	25	Y	FACW
2. Mummenhoffia alliacea	15	Y	UPL
3. Dipsacus laciniatus	15	Y	UPL
4. Poa pratensis	10	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	65.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	30	x 5 =	150
Column Totals:	65 (A)		230.00 (B)

Prevalence Index = B/A = 3.54

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP N2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP N3
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.574930 | Long: -82.781033 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 2 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	60	Y	FACW
2. Juncus pylaei	15	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		135.00 (B)

Prevalence Index = B/A = 1.8

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP N3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/6	5	C	M	SC	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP N4
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.574953 | Long: -82.780992 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 2 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dichanthelium clandestinum	20	Y	FACW
2. Hemerocallis fulva	15	Y	UPL
3. Lamium purpureum	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	30	Y	FACU
2.			
	30.0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	20	x 5 =	100
Column Totals:	70 (A)		260.00 (B)

Prevalence Index = B/A = 3.71

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP N4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					SICL	
3-18	10YR 5/1	95	10YR 5/6	5			SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✓ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP O1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.575734 | Long: -82.782689 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 2 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dichanthelium clandestinum	45	Y	FACW
2. Poa pratensis	20	Y	FAC
3. Mummenhoffia alliacea	5	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	70 (A)		175.00 (B)

Prevalence Index = B/A = 2.5

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP O1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP O2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 08 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.575774 | Long: -82.782681 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 2 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	70	Y	FACU
2. Asclepias syriaca	5	N	FACU
3. Dichanthelium clandestinum	3	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	78.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	5	Y	FACU
2.			
	5.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	3	x 2 =	6
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	83 (A)		326.00 (B)

Prevalence Index = B/A = 3.93

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP O2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP P1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 04 T001N R019W
Landform (hillside, terrace, etc.): Ditch | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.578027 | Long: -82.787703 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Juncus pylaei	25	Y	OBL
2. Asclepias syriaca	5	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30.0	=Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	30 (A)		45.00 (B)

Prevalence Index = B/A = 1.5

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP P1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP P2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 04 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.577880 | Long: -82.787606 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	30	Y	FAC
2. Solidago canadensis	20	Y	FACU
3. Asclepias syriaca	15	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	65.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	65 (A)		230.00 (B)

Prevalence Index = B/A = 3.54

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP P2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

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:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP Q1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 05 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.579205 | Long: -82.790457 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes ✓** **No ____**

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus pylaei	40	Y	OBL
2. Dichanthelium clandestinum	15	Y	FACW
3. Typha angustifolia	10	N	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	65.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	65 (A)		80.00 (B)

Prevalence Index = B/A = 1.23

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

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

Hydrophytic Vegetation Present? **Yes ✓** **No ____**

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

SOIL

Sampling Point: DP Q1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					SICL	
4-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✓ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ✓	No ___	Depth (inches): 2
Water Table Present?	Yes ✓	No ___	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 12

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP Q2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 05 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.579191 | Long: -82.790496 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No ✓
Hydric Soil Present?	Yes ____	No ✓
Wetland Hydrology Present?	Yes ____	No ✓

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dipsacus laciniatus	30	Y	UPL
2. Salvia lyrata	30	Y	FACW
3. Podophyllum peltatum	20	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	30	x 5 =	150
Column Totals:	80 (A)		290.00 (B)

Prevalence Index = B/A = 3.62

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP Q2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/2	100					SICL	
7-18	10YR 4/4	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP R1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Ditch | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.580826 | Long: -82.794461 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Carex stipata	20	Y	OBL
2. Alisma subcordatum	5	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	25.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	25 (A)		25.00 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP R1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	90	10YR 5/6	10	C	M	SICL	
4-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✓ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP R2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex
Slope (%): 3-7 | Lat: 38.580876 | Long: -82.794457 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No ✓
Hydric Soil Present?	Yes ___	No ✓
Wetland Hydrology Present?	Yes ___	No ✓

Is the Sampled Area within a Wetland? Yes ___ No ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Rosa multiflora	15	Y	FACU
2. Pyrus calleryana	10	Y	UPL
3. Liriodendron tulipifera	5	N	FACU
4.			
5.			
	30.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rubus allegheniensis	20	Y	FACU
2. Solidago canadensis	10	Y	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	60	Y	FACU
2.			
	60.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	110	x 4 =	440
UPL species	10	x 5 =	50
Column Totals:	120 (A)		490.00 (B)

Prevalence Index = B/A = 4.08

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

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

Hydrophytic Vegetation Present? Yes ___ No ✓

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

SOIL

Sampling Point: DP R2

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP S1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.581624 | Long: -82.795660 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus pylaei	30	Y	OBL
2. Persicaria maculosa	15	Y	FACW
3. Dichanthelium clandestinum	10	N	FACW
4. Cyperus rotundus	10	N	FAC
5. Allium canadense	2	N	FACU
6.			
7.			
8.			
9.			
10.			
	67.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	25	x 2 =	50
FAC species	10	x 3 =	30
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	67 (A)		118.00 (B)

Prevalence Index = B/A = 1.76

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP S1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	90	10YR 5/6	10	C	M	SICL	
5-18	10YR 2/2	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP S2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.581560 | Long: -82.795730 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ___ No ✓
Hydric Soil Present? Yes ✓ No ___
Wetland Hydrology Present? Yes ___ No ✓

Is the Sampled Area within a Wetland? **Yes** ___ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dichanthelium clandestinum	25	Y	FACW
2. Dipsacus laciniatus	20	Y	UPL
3. Solidago canadensis	15	Y	FACU
4. Poa pratensis	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	65.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	15	Y	FACU
2.			
	15.0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 25.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	5	x 3 =	15
FACU species	30	x 4 =	120
UPL species	20	x 5 =	100
Column Totals:	80 (A)		285.00 (B)

Prevalence Index = B/A = 3.56

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

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

Hydrophytic Vegetation Present? **Yes** ___ **No** ✓

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

SOIL

Sampling Point: DP S2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Ditch | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.590009 | Long: -82.805590 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus pylaei	95	Y	OBL
2. Persicaria maculosa	10	N	FACW
3. Alisma subcordatum	5	N	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		120.00 (B)

Prevalence Index = B/A = 1.09

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP T1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/3	95	10YR 5/6	5	C	M	SICL	
4-18	10YR 4/1	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.590076 | Long: -82.805447 | Datum: WGS84
Soil Map Unit Name: Sciotoville silt loam, 1 to 8 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Lolium arundinaceum	50	Y	UPL
2. Solidago canadensis	15	N	FACU
3. Dichanthelium clandestinum	10	N	FACW
4. Toxicodendron radicans	3	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	78.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	3	x 3 =	9
FACU species	15	x 4 =	60
UPL species	50	x 5 =	250
Column Totals:	78 (A)		339.00 (B)

Prevalence Index = B/A = 4.35

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

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

SOIL

Sampling Point: DP T2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/3	100					SICL	
4-18	10YR 4/6	100					SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T3
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Ditch | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.591392 | Long: -82.807126 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Typha angustifolia	60	Y	OBL
2. Persicaria amphibia	10	N	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	70.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		70.00 (B)

Prevalence Index = B/A = 1.0

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP T3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/2	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 12

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T4
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.591350 | Long: -82.807157 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dipsacus laciniatus	20	Y	UPL
2. Solidago canadensis	20	Y	FACU
3. Dichanthelium clandestinum	15	Y	FACW
4. Noccaea perfoliata	10	N	UPL
5. Carex squarrosa	3	N	OBL
6.			
7.			
8.			
9.			
10.			
	68.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	3	x 1 =	3
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	30	x 5 =	150
Column Totals:	68 (A)		263.00 (B)

Prevalence Index = B/A = 3.87

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

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

SOIL

Sampling Point: DP T4

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

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T5
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.592077 | Long: -82.807970 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Typha angustifolia	30	Y	OBL
2. Persicaria amphibia	15	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	45.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	45 (A)		45.00 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:

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

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

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

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

SOIL

Sampling Point: DP T5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ✓	No ___	Depth (inches): 5
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 12

Wetland Hydrology Present? **Yes** ✓ **No** ___

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-01
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T6
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.592028 | Long: -82.808027 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Noccaea perfoliata	55	Y	UPL
2. Apocynum cannabinum resiude	35	Y	FAC
3. Asclepias syriaca	20	N	FACU
4. Dipsacus laciniatus	10	N	UPL
5.			
6.			
7.			
8.			
9.			
10.			
	120.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	20	x 4 =	80
UPL species	65	x 5 =	325
Column Totals:	120 (A)		510.00 (B)

Prevalence Index = B/A = 4.25

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/2	100					SIL	Cobble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T7
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.593400 | Long: -82.809448 | Datum: WGS84
Soil Map Unit Name: | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Typha angustifolia	30	Y	OBL
2. Phragmites australis	10	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	40 (A)		50.00 (B)

Prevalence Index = B/A = 1.25

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ___	Depth (inches): 4		
Water Table Present?	Yes ___	No ✓	Depth (inches): ___		
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 18	**Wetland Hydrology Present?**	**Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T8
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.593416 | Long: -82.809421 | Datum: WGS84
Soil Map Unit Name: | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✓
Hydric Soil Present?	Yes ___	No ✓
Wetland Hydrology Present?	Yes ___	No ✓

Is the Sampled Area within a Wetland? Yes ___ No ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Callery pear	10	Y	UPL
2. Lonicera mackii	5	Y	UPL
3.			
4.			
5.			
	15.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dipsacus laciniatus	10	Y	UPL
2. Rubus allegheniensis	5	Y	FACU
3. Solidago canadensis	3	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	18.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Lonicera japonica	50	Y	FACU
2.			
	50.0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	58	x 4 =	232
UPL species	25	x 5 =	125
Column Totals:	83 (A)		357.00 (B)

Prevalence Index = B/A = 4.3

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	97	10YR 5/6	3	C	M	SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T9
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.597796 | Long: -82.814186 | Datum: WGS84
Soil Map Unit Name: | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Dichanthelium clandestinum	55	Y	FACW
2. Phragmites australis	45	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200.00 (B)

Prevalence Index = B/A = 2.0

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T10
Investigator(s): Agnes Marchlewska | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.597829 | Long: -82.814156 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	45	Y	FACU
2. Phragmites australis	35	Y	FACW
3. Sambucus canadensis	10	N	UPL
4. Poa pratensis	5	N	FAC
5. Vicia sativa	5	N	FACU
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	5	x 3 =	15
FACU species	50	x 4 =	200
UPL species	10	x 5 =	50
Column Totals:	100 (A)		335.00 (B)

Prevalence Index = B/A = 3.35

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	95	10YR 5/6	5	C	M	SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T11
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.601045 | Long: -82.817777 | Datum: WGS84
Soil Map Unit Name: | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Typha angustifolia	60	Y	OBL
2. Phragmites australis	35	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		130.00 (B)

Prevalence Index = B/A = 1.37

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ✓	No ___	Depth (inches): 4
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 18

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T12
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.601115 | Long: -82.817714 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Acer rubrum	5	Y	FAC
2.			
3.			
4.			
5.			
	5.0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	45	Y	FACU
2. Phragmites australis	10	N	FACW
3. Poa pratensis	10	N	FAC
4. Dipsacus laciniatus	10	N	UPL
5. Dichanthelium clandestinum	5	N	FACW
6.			
7.			
8.			
9.			
10.			
	80.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	15	x 3 =	45
FACU species	45	x 4 =	180
UPL species	10	x 5 =	50
Column Totals:	85 (A)		305.00 (B)

Prevalence Index = B/A = 3.59

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	97	10YR 5/6	3	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T13
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.605728 | Long: -82.822918 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Bidens aristosa	65	Y	FACW
2. Persicaria amphibia	10	N	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		140.00 (B)

Prevalence Index = B/A = 1.87

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? Yes ✓ No ___ Depth (inches): 18

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T14
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.605797 | Long: -82.822854 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	55	Y	FACU
2. Poa pratensis	30	Y	FAC
3. Dipsacus laciniatus	10	N	UPL
4. Dichanthelium clandestinum	3	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	98.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	3	x 2 =	6
FAC species	30	x 3 =	90
FACU species	55	x 4 =	220
UPL species	10	x 5 =	50
Column Totals:	98 (A)		366.00 (B)

Prevalence Index = B/A = 3.73

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	100					SIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T15
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.612138 | Long: -82.829069 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phragmites australis	55	Y	FACW
2. Typha angustifolia	40	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	55	x 2 =	110
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		150.00 (B)

Prevalence Index = B/A = 1.58

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✓ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP T16
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.612189 | Long: -82.828998 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Hemerocallis fulva	65	Y	UPL
2. Rubus allegheniensis	20	Y	FACU
3. Dipsacus laciniatus	10	N	UPL
4. Phragmites australis	5	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	100.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	75	x 5 =	375
Column Totals:	100 (A)		465.00 (B)

Prevalence Index = B/A = 4.65

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP T16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP U1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611679 | Long: -82.835898 | Datum: WGS84
Soil Map Unit Name: Weinbach silt loam, 0 to 3 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Persicaria amphibia	30	Y	OBL
2. Juncus pylaei	15	Y	OBL
3. Dichanthelium clandestinum	10	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	55 (A)		65.00 (B)

Prevalence Index = B/A = 1.18

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP U1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✓ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? Yes ✓ No ___ Depth (inches): 10

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP U2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.5926576 | Long: -82.835898 | Datum: WGS84
Soil Map Unit Name: Elkinsville silt loam, 1 to 8 percent slopes | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago canadensis	35	Y	FACU
2. Poa pratensis	35	Y	FAC
3. Asclepias syriaca	10	N	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	80.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	35	x 3 =	105
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	80 (A)		285.00 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP U2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/6	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP V1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.593168 | Long: -82.809093 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus pylaei	10	Y	OBL
2. Typha angustifolia	5	Y	OBL
3. Persicaria amphibia	5	Y	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	20 (A)		20.00 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP V1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP V2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.593182 | Long: -82.809075 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Rubus allegheniensis	60	Y	FACU
2. Plantago lanceolata	10	N	FACU
3. Toxicodendron radicans	10	N	FAC
4. Asclepias syriaca	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	85.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	85 (A)		330.00 (B)

Prevalence Index = B/A = 3.88

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP V2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP W1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.608254 | Long: -82.825517 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Salvia lyrata	30	Y	FACW
2. Typha angustifolia	30	Y	OBL
3. Juncus pylaei	15	N	OBL
4. Phragmites australis	10	N	FACW
5. Dichanthelium clandestinum	5	N	FACW
6.			
7.			
8.			
9.			
10.			
	90.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	45	x 2 =	90
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		135.00 (B)

Prevalence Index = B/A = 1.5

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP W1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ___	Depth (inches):	4	
Water Table Present?	Yes ✓	No ___	Depth (inches):	1	
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches):	12	**Wetland Hydrology Present?** **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP W2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.608501 | Long: -82.825473 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No ✓
Hydric Soil Present? Yes ____ No ✓
Wetland Hydrology Present? Yes ____ No ✓

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✓

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Veronica arvensis	35	Y	FACU
2. Solidago canadensis	30	Y	FACU
3. Dipsacus laciniatus	25	Y	UPL
4. Hemerocallis fulva	15	N	UPL
5. Poa pratensis	10	N	FAC
6.			
7.			
8.			
9.			
10.			
	115.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	65	x 4 =	260
UPL species	40	x 5 =	200
Column Totals:	115 (A)		490.00 (B)

Prevalence Index = B/A = 4.26

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP W2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP X1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.611368 | Long: -82.828267 | Datum: WGS84
Soil Map Unit Name: | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Persicaria maculosa	45	Y	FACW
2. Phragmites australis	16	Y	FACW
3. Carex frankii	10	N	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	71.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	61	x 2 =	122
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	71 (A)		132.00 (B)

Prevalence Index = B/A = 1.86

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP X1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	85	10YR 5/6	15	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ✓ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Scioto County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP X2
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range:
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Convex
Slope (%): 0-2 | Lat: 38.611340 | Long: -82.828288 | Datum: WGS84
Soil Map Unit Name: Peoga silt loam, rarely flooded | NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✓	**Is the Sampled Area within a Wetland?** Yes ____ No ✓
Hydric Soil Present?	Yes ____	No ✓	
Wetland Hydrology Present?	Yes ____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Sanguinaria canadensis	55	Y	FACU
2. Hemerocallis fulva	45	Y	UPL
3. Lamium purpureum	5	N	UPL
4. Rubus allegheniensis	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	110.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	50	x 5 =	250
Column Totals:	110 (A)		490.00 (B)

Prevalence Index = B/A = 4.45

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP X2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	95	10YR 5/6	5	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): ___
Water Table Present?	Yes ___	No ✓	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; 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: Razzler | City/County: Lawrence County | Sampling Date: 2026-05-05
Applicant/Owner: AEP | State: Ohio | Sampling Point: DP Y1
Investigator(s): Agnes Marchlewska, Alex Santiago | Section, Township, Range: sec 09 T001N R019W
Landform (hillside, terrace, etc.): Flat | Local relief (concave, convex, none): Concave
Slope (%): 0-2 | Lat: 38.571031 | Long: -82.771662 | Datum: WGS84
Soil Map Unit Name: Shelocta silt loam, 2 to 6 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ____
Hydric Soil Present? Yes ✓ No ____
Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ____

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Typha angustifolia	35	Y	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	35.0	=Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	35 (A)		35.00 (B)

Prevalence Index = B/A = 1.0

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation
✓ 2 - Dominance Test is >50%
✓ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP Y1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	SICL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Iron Monosulfide (A18)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21) Very
- ___ Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No ___	Depth (inches): 1		
Water Table Present?	Yes ✓	No ___	Depth (inches): 2		
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 18	**Wetland Hydrology Present?**	**Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix D

ORAM Forms

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	2	
	Metric 2: Buffers and surrounding land use	4	
	Metric 3: Hydrology	5	
	Metric 4: Habitat	4	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	4	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	19	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland A	Rater(s): Alex Santiago	Date: 04/30/2026

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☒ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

4	6
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☒ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

5	11
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☐ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

4	15
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☐ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☐ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☒ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☒	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

15
Subtotal this page

Site: Razzler Station - Wetland A	Rater(s): Alex Santiago	Date: 04/30/2026

15

Subtotal first page

0	15
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

4	19
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
2	Mudflats
0	Open Water
0	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	2
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☒
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

6

Subtotal

6

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

10

Subtotal

10

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 3	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 1
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☐
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

11

Subtotal

11

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☐
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 1

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☒

13

Subtotal

13

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☒	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance. 3	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

15

Subtotal

15

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	3
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	2
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

18

Subtotal

18

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

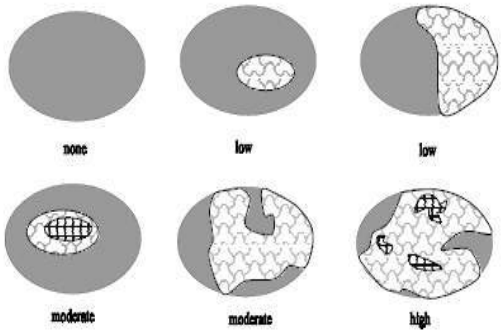

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

19

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	4	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	5.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	17.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland C	Rater(s): Alex Santiago	Date: 4/30/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

4	4
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☒ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	10
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

5.5	15.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☐ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☒	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

15.5
Subtotal this page

Site: Razzler Station - Wetand C	Rater(s): Alex Santiago	Date: 4/30/2026

15.5

Subtotal first page

0	15.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

2	17.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☒
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

4

Subtotal

4

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☐
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

8

Subtotal

8

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations. 2

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 2	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

10

Subtotal

10

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

14.5

Subtotal

14.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 1
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☐
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

15.5

Subtotal

15.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

16.5

Subtotal

16.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

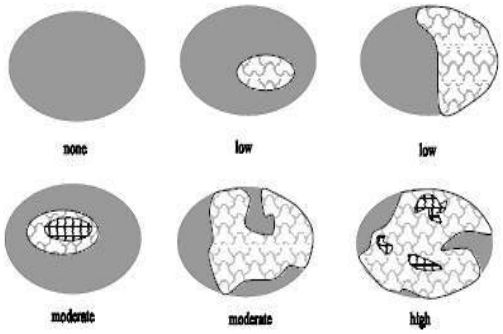

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

17.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	9	
	Metric 3: Hydrology	7	
	Metric 4: Habitat	9	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	5	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	30	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☐ YES Wetland is assigned to the appropriate category based on the scoring range	☒ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☒ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☐ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland G	Rater(s): Alex Santiago	Date: 4/30/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

9	9
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☒ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☒ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7	16
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☒ Part of wetland/upland (e.g. forest), complex (1pts)
- ☐ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

9	25
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☒ Moderately good (4pts)
- ☐ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

25
Subtotal this page

Site: Razzler Station - Wetland G	Rater(s): Alex Santiago	Date: 4/30/2026

25

Subtotal first page

0	25
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

5	30
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
0	Emergent
0	Shrub
2	Forest
1	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

30	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	4
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☒
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	5
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☒
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

9

Subtotal

9

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☒
1pt	**Part of riparian or upland corridor.** See description above.	☐
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

13

Subtotal

13

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 3
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

16

Subtotal

16

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 4

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☒
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

22

Subtotal

22

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

25

Subtotal

25

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	3
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☐	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☒	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	2
☒	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

28

Subtotal

28

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

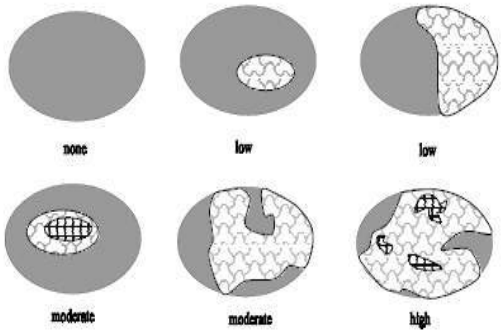

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

30

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	2	
	Metric 2: Buffers and surrounding land use	7	
	Metric 3: Hydrology	7	
	Metric 4: Habitat	8	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	5	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	29	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland H	Rater(s): Alex Santiago	Date: 4/30/2026

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☒ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

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 50 m (164ft) or more around wetland perimeter (7pts)
- ☒ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7	16
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

8	24
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☒	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

24
Subtotal this page

Site: Razzler Station - Wetland H	Rater(s): Alex Santiago	Date: 4/30/2026

24

Subtotal first page

0	24
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

5	29
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
1	Forest
1	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

29	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	2
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	4
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☒
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

9

Subtotal

9

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

13

Subtotal

13

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 3
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

16

Subtotal

16

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

21

Subtotal

21

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☒	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

24

Subtotal

24

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☒	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	1
☒	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

27

Subtotal

27

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

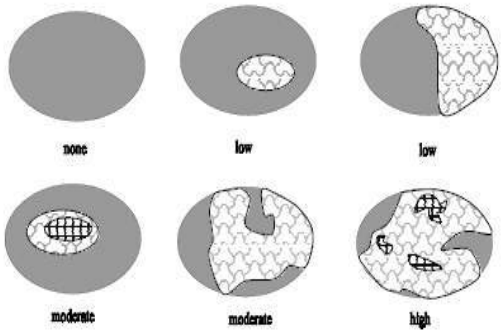

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

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GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	4	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	7	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	20	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland F	Rater(s): Alex Santiago	Date: 4/30/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

4	4
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☒ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	10
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

7	17
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

17
Subtotal this page

Site: Razzler Station - Wetland E	Rater(s): Alex Santiago	Date: 4/30/2026

17

Subtotal first page

0	17
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	20
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance Tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (6in)
0	Standing dead >25cm (10in) dbh
0	Amphibian breeding pools

Micro topography 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

20	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☒
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

4

Subtotal

4

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

8

Subtotal

8

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 2	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

10

Subtotal

10

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

15

Subtotal

15

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☒	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

17

Subtotal

17

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

18

Subtotal

18

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

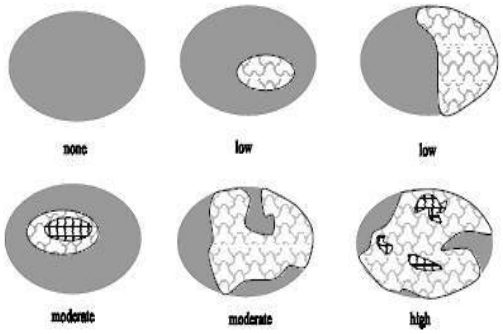

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

20

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	2	
	Metric 2: Buffers and surrounding land use	7	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	6.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	24.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland E	Rater(s): Alex Santiago	Date: 4/30/2026

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☒ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

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 50 m (164ft) or more around wetland perimeter (7pts)
- ☒ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	15
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6.5	21.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☒	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

21.5
Subtotal this page

Site: Razzler Station - Wetland E	Rater(s): Alex Santiago	Date: 4/30/2026

21.5

Subtotal first page

0	21.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	24.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

24.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	2
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	4
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☒
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

9

Subtotal

9

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

13

Subtotal

13

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 2	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

15

Subtotal

15

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

19.5

Subtotal

19.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

21.5

Subtotal

21.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

22.5

Subtotal

22.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

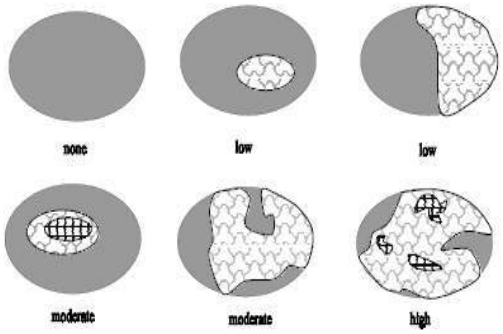

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

24.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	2	
	Metric 2: Buffers and surrounding land use	4	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	6.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	21.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland D	Rater(s): Alex Santiago	Date: 4/30/2026

2	2
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☒ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

4	6
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☒ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	12
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6.5	18.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☒	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

18.5
Subtotal this page

Site: Razzler Station - Wetland D	Rater(s): Alex Santiago	Date: 4/30/2026

18.5

Subtotal first page

0	18.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	21.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
0	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

21.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	2
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☒
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

6

Subtotal

6

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

4

Subtotal

10

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 2	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

12

Subtotal

12

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to not be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

16.5

Subtotal

16.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☒	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

18.5

Subtotal

18.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

19.5

Subtotal

19.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

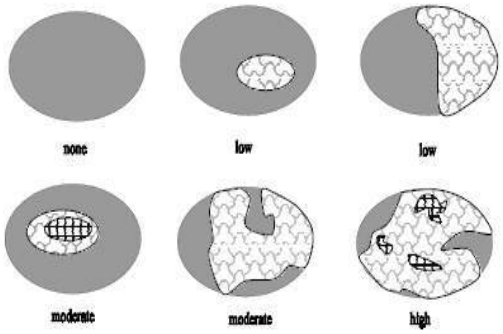

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

21.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	4	
	Metric 3: Hydrology	7	
	Metric 4: Habitat	6.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	20.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland B	Rater(s): Alex Santiago	Date: 4/30/2026

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☒ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

4	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 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☒ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7	12
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☒ Seasonally inundated (2pts)
- ☐ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6.5	18.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

18.5
Subtotal this page

Site: Razzler Station - Wetland B	Rater(s): Alex Santiago	Date: 4/30/2026

18.5

Subtotal first page

0	18.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

2	20.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
1	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☒ Sparse 5-25% cover (-1)
- ☐ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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

20.5 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☒
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

5

Subtotal

5

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	2
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☒
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☐

10

Subtotal

10

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 3	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

12

Subtotal

12

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☒ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance. 2	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

16.5

Subtotal

16.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

18.5

Subtotal

18.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

20.5

Subtotal

20.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		-1
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☒
0pts	Nearly absent. <5% areal cover of invasive species	☐
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

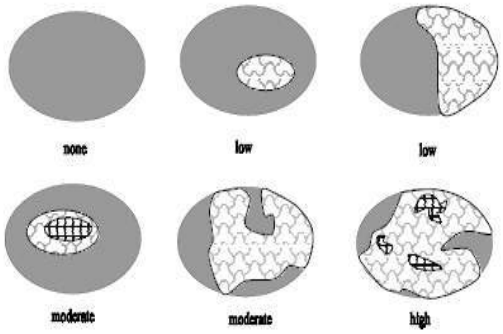

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

20.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	4	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	6.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	19.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland I	Rater(s): Alex Santiago	Date: 4/30/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

4	4
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☒ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	10
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6.5	16.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☒	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

16.5
Subtotal this page

Site: Razzler Station - Wetland I	Rater(s): Alex Santiago	Date: 4/30/2026

16.5

Subtotal first page

0	16.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	19.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☒
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

4

Subtotal

4

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

8

Subtotal

8

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 2	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

10

Subtotal

10

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance. 3	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

14.5

Subtotal

14.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☒	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance. 2	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

16.5

Subtotal

16.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

17.5

Subtotal

17.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

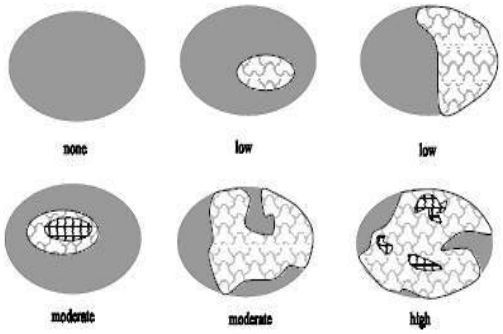

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

19.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	7	
	Metric 3: Hydrology	7	
	Metric 4: Habitat	7.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	4	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	26.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland J	Rater(s): Alex Santiago	Date: 4/30/2026

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☒ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

7	8
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☒ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☒ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7	15
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☒ Part of wetland/upland (e.g. forest), complex (1pts)
- ☐ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☒	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

7.5	22.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☒	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

22.5
Subtotal this page

Site: Razzler Station - Wetland J	Rater(s): Alex Santiago	Date: 4/30/2026

22.5
Subtotal first page

0	22.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

4	26.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
1	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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

26.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	4
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☒
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☒
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

8

Subtotal

8

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☒
1pt	**Part of riparian or upland corridor.** See description above.	☐
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

12

Subtotal

12

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☒	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 3	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 3
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

15

Subtotal

15

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

19.5

Subtotal

19.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☒	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance. 3	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

22.5

Subtotal

22.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

24.5

Subtotal

24.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

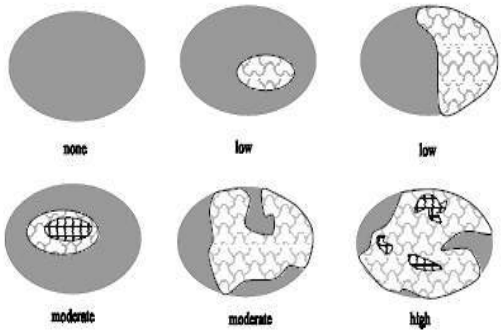

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

26.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	6	
	Metric 3: Hydrology	7	
	Metric 4: Habitat	8	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	24	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland K	Rater(s): Alex Santiago	Date: 5/1/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

6	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 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☒ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☒ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☐ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7	13
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☒ Part of wetland/upland (e.g. forest), complex (1pts)
- ☐ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

8	21
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

21
Subtotal this page

Site: Razzler Station - Wetland K	Rater(s): Alex Santiago	Date: 4/30/2026

21

Subtotal first page

0	21
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	24
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
0	Emergent
0	Shrub
1	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

24	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☒
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☐
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	5
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☒
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☐

6

Subtotal

6

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☒
1pt	**Part of riparian or upland corridor.** See description above.	☐
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

10

Subtotal

10

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 3
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

13

Subtotal

13

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

18

Subtotal

18

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

21

Subtotal

21

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☐	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	0
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☒	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	1
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

22

Subtotal

22

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

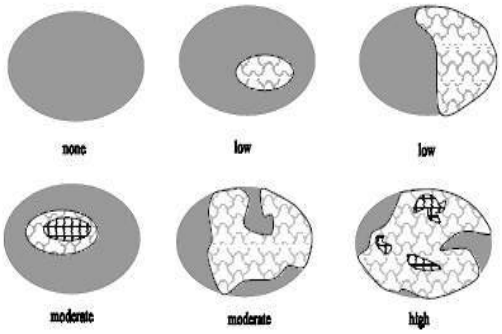

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

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GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	8	
	Metric 4: Habitat	6	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	4	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	20	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland L	Rater(s): Alex Santiago	Date: 5/1/2026

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☒ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

1	2
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

8	10
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☒ Seasonally inundated (2pts)
- ☐ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6	16
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☐ Fair (3pts)
- ☒ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

16
Subtotal this page

Site: Razzler Station	Rater(s):	Date:

16

Subtotal first page

0	16
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

4	20
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
1	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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

20	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

2

Subtotal

2

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	2
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☒
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☐

7

Subtotal

7

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 3
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

10

Subtotal

10

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 2

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☒
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

14

Subtotal

14

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

16

Subtotal

16

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☒	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

18

Subtotal

18

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

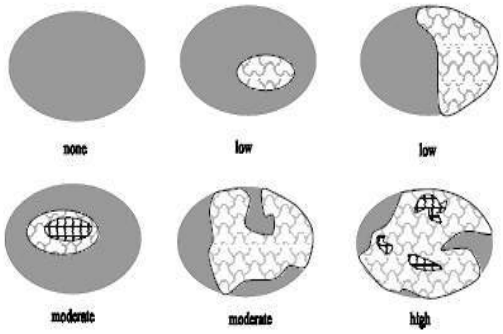

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

20

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	6.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	15.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland M	Rater(s): Alex Santiago	Date: 4/30/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	7
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐ Ditch	☐ Point source (non-storm water)
☐ Tile	☐ Filing/grading
☐ Dike	☐ Road bed/RR track
☐ Weir	☐ Dredging
☐ Storm water input	☐ Other_____.

6.5	13.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐ Mowing	☐ Shrub/sapling removal
☐ Grazing	☐ Herbaceous/aquatic bed removal
☐ Clear-cutting	☐ Sedimentation
☐ Selective cutting	☐ Dredging
☐ Woody debris removal	☐ Farming
☐ Toxic pollutants	☐ Nutrient enrichment

13.5
Subtotal this page

Site: Razzler Station - Wetland M	Rater(s): Alex Santiago	Date: 5/1/2026

13.5

Subtotal first page

0	13.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

2	15.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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

15.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

5

Subtotal

5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

7

Subtotal

7

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

11.5

Subtotal

11.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

13.5

Subtotal

13.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

14.5

Subtotal

14.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

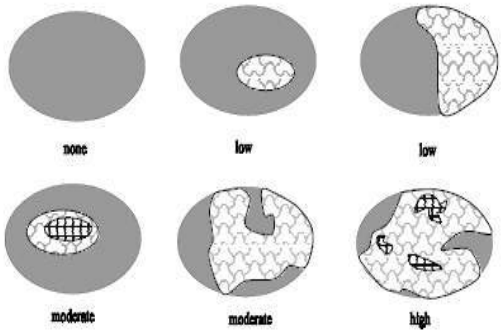

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

15.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	8	
	Metric 4: Habitat	8	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	-1	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	17	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland N	Rater(s): Alex Santiago	Date: 5/1/2026

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☒ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

1	2
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

8	10
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☒ Seasonally inundated (2pts)
- ☐ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐ Ditch	☐ Point source (non-storm water)
☐ Tile	☐ Filing/grading
☐ Dike	☐ Road bed/RR track
☐ Weir	☐ Dredging
☐ Storm water input	☐ Other_____.

8	18
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐ Mowing	☐ Shrub/sapling removal
☐ Grazing	☐ Herbaceous/aquatic bed removal
☐ Clear-cutting	☐ Sedimentation
☐ Selective cutting	☐ Dredging
☐ Woody debris removal	☐ Farming
☐ Toxic pollutants	☐ Nutrient enrichment

18
Subtotal this page

Site: Razzler Station - Wetland N	Rater(s): Alex Santiago	Date: 5/1/2026

18

Subtotal first page

0	18
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

-1	17
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance Tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☒ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (6in)
0	Standing dead >25cm (10in) dbh
0	Amphibian breeding pools

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

2

Subtotal

2

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☐
3pts	Seasonal surface water	☒
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	2
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☒
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☐

7

Subtotal

7

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 3
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

10

Subtotal

10

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

15

Subtotal

15

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

18

Subtotal

18

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

19

Subtotal

19

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		-3
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☒
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☐
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

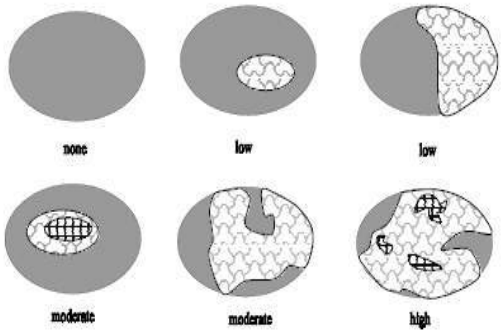

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

17

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	7	
	Metric 4: Habitat	6.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	18.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☐ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland O	Rater(s): Alex Santiago	Date: 5/1/2026

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☒ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

1	2
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7	9
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6.5	15.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

15.5
Subtotal this page

Site: Razzler Station - Wetland O	Rater(s): Alex Santiago	Date: 5/1/2026

15.5

Subtotal first page

0	15.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	18.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance Tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (6in)
0	Standing dead >25cm (10in) dbh
0	Amphibian breeding pools

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

18.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

2

Subtotal

2

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

6

Subtotal

6

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 3
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

9

Subtotal

9

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

13.5

Subtotal

13.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

15.5

Subtotal

15.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

16.5

Subtotal

16.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

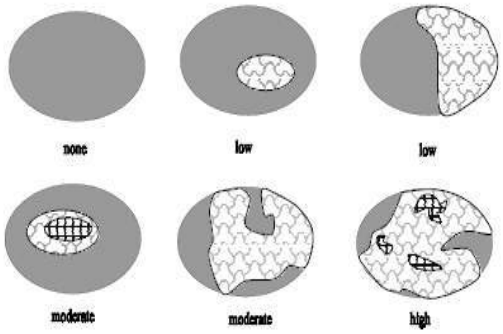

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

18.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	5.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	14.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland P	Rater(s): Alex Santiago	Date: 5/1/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	7
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

5.5	12.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☒ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☐ Fair (3pts)
- ☒ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

12.5
Subtotal this page

Site: Razzler Station - Wetland P	Rater(s): Alex Santiago	Date: 5/1/2026

12.5

Subtotal first page

0	12.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

2	14.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

14.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

5

Subtotal

5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

7

Subtotal

7

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 1.5
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 2

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☒
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

10.5

Subtotal

10.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

12.5

Subtotal

12.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

13.5

Subtotal

13.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

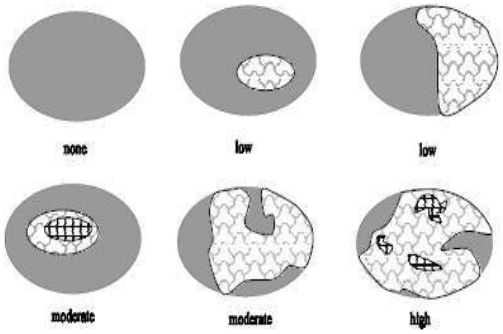

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

14.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	7	
	Metric 4: Habitat	7	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	17	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland Q	Rater(s): Alex Santiago	Date: 5/1/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7	8
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☒ Seasonally inundated (2pts)
- ☐ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐ Ditch	☐ Point source (non-storm water)
☐ Tile	☐ Filing/grading
☐ Dike	☐ Road bed/RR track
☐ Weir	☐ Dredging
☐ Storm water input	☐ Other_____.

7	15
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐ Mowing	☐ Shrub/sapling removal
☐ Grazing	☐ Herbaceous/aquatic bed removal
☐ Clear-cutting	☐ Sedimentation
☐ Selective cutting	☐ Dredging
☐ Woody debris removal	☐ Farming
☐ Toxic pollutants	☐ Nutrient enrichment

15
Subtotal this page

Site: Razzler Station - Wetland Q	Rater(s): Alex Santiago	Date: 5/1/2026

15

Subtotal first page

0	15
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

2	17
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

1	Aquatic Bed
2	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☒ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

17	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	2
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☒
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☐

6

Subtotal

6

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

8

Subtotal

8

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

13

Subtotal

13

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

15

Subtotal

15

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	3
☒	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	1
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	2
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

18

Subtotal

18

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		-3
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☒
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☐
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

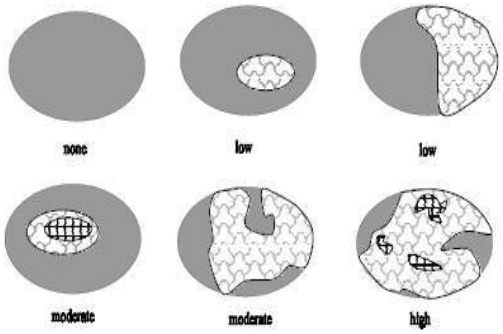

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

17

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	7	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	5	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	19	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland R	Rater(s): Alex Santiago	Date: 5/1/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	7
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐ Ditch	☐ Point source (non-storm water)
☐ Tile	☐ Filing/grading
☐ Dike	☐ Road bed/RR track
☐ Weir	☐ Dredging
☐ Storm water input	☐ Other_____.

7	14
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☐ Fair (3pts)
- ☒ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐ Mowing	☐ Shrub/sapling removal
☐ Grazing	☐ Herbaceous/aquatic bed removal
☐ Clear-cutting	☐ Sedimentation
☐ Selective cutting	☐ Dredging
☐ Woody debris removal	☐ Farming
☐ Toxic pollutants	☐ Nutrient enrichment

14
Subtotal this page

Site: Razzler Station - Wetland R	Rater(s): Alex Santiago	Date: 5/1/2026

14

Subtotal first page

0	14
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

5	19
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
2	Emergent
0	Shrub
0	Forest
1	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

5

Subtotal

5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

7

Subtotal

7

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 2

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☒
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

11

Subtotal

11

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

14

Subtotal

14

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	3
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	2
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☒	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

17

Subtotal

2

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.	
5pts HIGH. Wetland has a high degree of interspersion	☐
4pts MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts MODERATE. Wetland has a moderate degree of interspersion	☐
2pts MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt LOW. Wetland has a low degree of interspersion	☐
0pts NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.	0
-5pts Extensive. >75% areal cover of invasive species	☐
-3pts Moderate 25-75% areal cover of invasive species	☐
-1pt Sparse. 5-25% areal cover of invasive species	☐
0pts Nearly absent. <5% areal cover of invasive species	☒
1pt Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

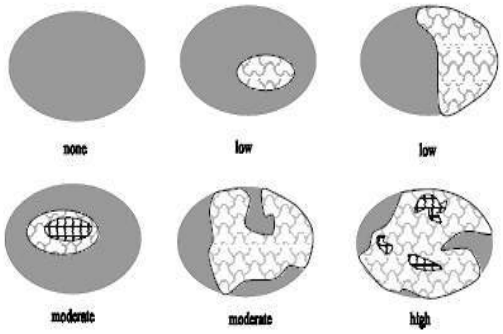

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

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GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	8	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	5	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	20	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland S	Rater(s): Alex Santiago	Date: 5/1/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	7
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☐	Road bed/RR track
☐	Weir	☐	Dredging
☒	Storm water input	☐	Other_____.

8	15
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

15
Subtotal this page

Site: Razzler Station - Wetland S	Rater(s): Alex Santiago	Date: 5/1/2026

15

Subtotal first page

0	15
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

5	20
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
2	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☒ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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

20	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

5

Subtotal

5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☐	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☒	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

7

Subtotal

7

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

12

Subtotal

12

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

15

Subtotal

15

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	2
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

17

Subtotal

17

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		3
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☒
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

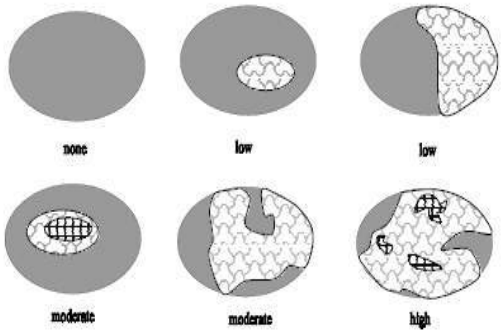

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

20

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	3	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	14	
	Metric 4: Habitat	9	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	5	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	32	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☐ YES Wetland is assigned to the appropriate category based on the scoring range	☒ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☒ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☐ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☐ Category 1	☒ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland T	Rater(s): Alex Santiago	Date: 5/5/2026

3	3
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☒ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

1	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 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

14	18
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☒ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☒ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☒ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☐ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☒ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☐ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☒	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☒	Road bed/RR track
☐	Weir	☐	Dredging
☒	Storm water input	☐	Other_____.

9	27
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☒ Moderately good (4pts)
- ☐ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☐ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

27
Subtotal this page

Site: Razzler Station - Wetland T	Rater(s): Alex Santiago	Date: 5/5/2026

27

Subtotal first page

0	27
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

5	32
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

2	Aquatic Bed
2	Emergent
0	Shrub
0	Forest
2	Mudflats
0	Open Water
0	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☒ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

32	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	3
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

4

Subtotal

4

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	4
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☒
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	2
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☒
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	2
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☒
1pt	<0.4m (<15.7in)	☐
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	3
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☒
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☐

15

Subtotal

15

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☒	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☒	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☒	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 18
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

18

Subtotal

18

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 4

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☒
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

24

Subtotal

24

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☐

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

27

Subtotal

27

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	6
☒	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	2
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	2
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
☒	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	2
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

33

Subtotal

33

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		-3
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☒
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☐
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

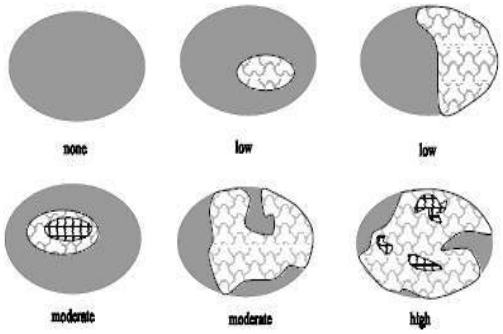

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

32

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	6	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	16	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland U	Rater(s): Alex Santiago	Date: 05/05/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	7
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☒	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6	13
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☐ Fair (3pts)
- ☒ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

13
Subtotal this page

Site: Razzler Station - Wetland U	Rater(s): Alex Santiago	Date: 05/05/2026

13

Subtotal first page

0	13
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	16
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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

16	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

5

Subtotal

5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☒	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

7

Subtotal

7

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 2

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☒
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

11

Subtotal

11

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

13

Subtotal

13

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

14

Subtotal

14

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

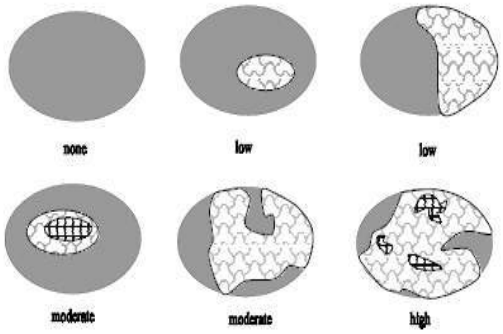

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

16

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	6	
	Metric 4: Habitat	6	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	16	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland V	Rater(s): Alex Santiago	Date: 05/05/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	7
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☒	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6	13
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☐ Fair (3pts)
- ☒ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

13
Subtotal this page

Site: Razzler Station - Wetland V	Rater(s): Alex Santiago	Date: 05/05/2026

13

Subtotal first page

0	13
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	16
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☒ Moderately low (2pts)
- ☐ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☒ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography 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

16	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

5

Subtotal

5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☒	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

7

Subtotal

7

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 2

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☒
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

11

Subtotal

11

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

13

Subtotal

13

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

14

Subtotal

14

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☒
1pt	LOW. Wetland has a low degree of interspersion	☐
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☒
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

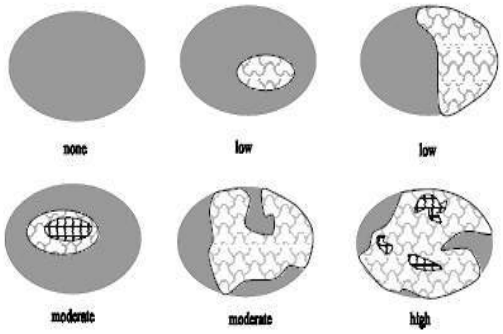

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

16

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	7.5	
	Metric 4: Habitat	7	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	-2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	14.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland W	Rater(s): Alex Santiago	Date: 05/05/2026

1	1
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☒ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☐ <0.1 acres (0.04ha) (0pts)

1	2
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

7.5	9.5
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☒ Regularly inundate/saturated (3pts)
- ☒ Seasonally inundated (2pts)
- ☐ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☒	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☒	Road bed/RR track
☐	Weir	☐	Dredging
☒	Storm water input	☐	Other_____.

7	16.5
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

16.5
Subtotal this page

Site: Razzler Station - Wetland W	Rater(s): Alex Santiago	Date: 05/05/2026

16.5

Subtotal first page

0	16.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

-2	14.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
1	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☒ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

	Vegetated hummocks/tussocks
	Coarse woody debris >15cn (6in)
	Standing dead >25cm (10in) dbh
	Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

14.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

2

Subtotal

2

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	2.5
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☒
2pts	Seasonally inundated.	☒
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☐

7.5

Subtotal

7.5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☒	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☒	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☒	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5
			9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

9.5

Subtotal

9.5

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

14.5

Subtotal

14.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

16.5

Subtotal

16.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☒	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

18.5

Subtotal

18.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		-5
-5pts	Extensive. >75% areal cover of invasive species	☒
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☐
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

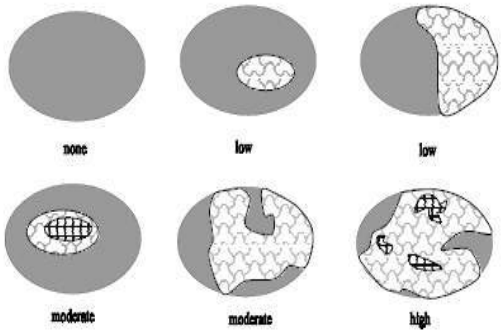

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

14.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	5	
	Metric 4: Habitat	6	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	1	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	13	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☒ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☒ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☒ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☒ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Stationm - Wetland X	Rater(s): Alex Santiago	Date: 05/05/2026

0	0
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

1	1
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

5	6
Max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☐ Regularly inundate/saturated (3pts)
- ☐ Seasonally inundated (2pts)
- ☒ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☐ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☒	Road bed/RR track
☐	Weir	☐	Dredging
☐	Storm water input	☐	Other_____.

6	12
Max 20pts.	Subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☐ Fair (3pts)
- ☒ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

12
Subtotal this page

Site: Razzler Station - Wetland X	Rater(s): Alex Santiago	Date: 05/05/2026

12

Subtotal first page

0	12
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

1	13
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

0	Aquatic Bed
1	Emergent
0	Shrub
0	Forest
0	Mudflats
0	Open Water
	Other_____.

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☐ Moderate 25-75% cover (-3pts)
- ☒ Sparse 5-25% cover (-1)
- ☐ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (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 put 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)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

13	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	1
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☐
2pts	Seasonally inundated.	☐
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☒

5

Subtotal

5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☐	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☒	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☐	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance. 3	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5

Select one or double check adjoining number and average the score.		**score** 1
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☐
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

6

Subtotal

6

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 2

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☐
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☒
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

10

Subtotal

10

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

12

Subtotal

12

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	
☐	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☐	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

13

Subtotal

13

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		-1
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☐
-1pt	Sparse. 5-25% areal cover of invasive species	☒
0pts	Nearly absent. <5% areal cover of invasive species	☐
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

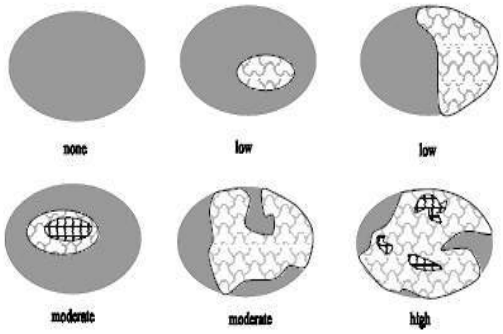

Figure 1. Hypothetical wetlands for estimating degree of interspersion.

13

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

ORAM Summary Worksheet

		Circle answer or insert **score**	**Result**
Narrative Rating	Question 1: Critical Habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	☐ YES ☒ NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	☐ YES ☒ NO	If yes, Category 3.
	Question 4: Significant bird habitat	☐ YES ☒ NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	☐ YES ☒ NO	If yes, Category 1
	Questions 6: Bogs	☐ YES ☒ NO	If yes, Category 3.
	Question 7: Fens	☐ YES ☒ NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	☐ YES ☒ NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	☐ YES ☒ NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	☐ YES ☒ NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	☐ YES ☒ NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	0	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	7.5	
	Metric 4: Habitat	7	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	1	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	16.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.	☐ YES Wetland is categorized as a Category 3 wetland	☒ NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	☐ YES Wetland should be evaluated for possible Category 3 status	☒ NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	☐ YES Wetland is categorized as a Category 1 wetland	☒ NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?	☐ YES Wetland is assigned to the appropriate category based on the scoring range	☐ NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	☐ YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	☐ NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	☐ YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	☐ NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hdrologic function s because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	☐ Category 1	☐ Category 2	☐ Category 3

End of Ohio Rapid Assessment Method for Wetlands

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ORAM v 5.0 Field Quantitative Rating

Site: Razzler Station - Wetland Y	Rater(s): Alex Santiago	Date: 05/05/2026

Metric 1. Wetland Area (size).

0	0
max 6 pts.	subtotal

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6pts)
- ☐ 25 to <50acrea (10.1 to <20.2ha) (5pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3pts)
- ☐ 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- ☐ .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- ☒ <0.1 acres (0.04ha) (0pts)

Metric 2. Upland buffers and surrounding land use.

1	1
max 14 pts.	subtotal

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
- ☐ NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

Metric 3. Hydrology.

7.5	8.5
Max 30 pts.	subtotal

3a. Sources of Water. Score all that apply

- ☐ High pH groundwater (5pts)
- ☐ Other groundwater (3pts)
- ☒ Precipitation (1pts)
- ☐ Seasonal/Intermittent surface water (3pts)
- ☐ Perennial surface water (lake or stream) (5pts)

3b. Connectivity. Score all that apply

- ☐ 100 year floodplain (1pts)
- ☐ Between stream/lake and other human use (1pts)
- ☐ Part of wetland/upland (e.g. forest), complex (1pts)
- ☒ Part of riparian or upland corridor (1pts)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3pts)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) 2pts)
- ☒ <0.4m ((<15.7in) (1pts_

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4pts)
- ☒ Regularly inundate/saturated (3pts)
- ☒ Seasonally inundated (2pts)
- ☐ Seasonally saturated in upper 30cm (12in) (1pts)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12pts)
- ☐ Recovered (7pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☒	Ditch	☐	Point source (non-storm water)
☐	Tile	☐	Filing/grading
☐	Dike	☒	Road bed/RR track
☐	Weir	☐	Dredging
☒	Storm water input	☐	Other_____.

Metric 4. Habitat Alteration and Development.

7	15.5
Max 20pts.	Subtotal

4a. Substrate disturbance. Score one or double-check and average.

- ☐ None or none apparent (4pts)
- ☐ Recovered (3pts)
- ☒ Recovered (2pts)
- ☐ Recent or no recovery (1pts)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7pts)
- ☐ Very good (6pts)
- ☐ Good (5pts)
- ☐ Moderately good (4pts)
- ☒ Fair (3pts)
- ☐ Poor to fair (2pts)
- ☐ Poor (pts)

4c. Habitat alteration. Score one or double-check and average.

- ☐ None or none apparent (9pts)
- ☐ Recovered (6pts)
- ☒ Recovering (3pts)
- ☒ Recent or no recovery (1pts)

Check all disturbances observed

☐	Mowing	☐	Shrub/sapling removal
☐	Grazing	☐	Herbaceous/aquatic bed removal
☐	Clear-cutting	☐	Sedimentation
☐	Selective cutting	☐	Dredging
☐	Woody debris removal	☐	Farming
☐	Toxic pollutants	☐	Nutrient enrichment

15.5
Subtotal this page

Site: Razzler Station - Weltand Y	Rater(s): Alex Santiago	Date: 05/05/2026

15.5
Subtotal first page

0	15.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- ☐ Bog (10pts)
- ☐ Fen (10pts)
- ☐ Old growth forest (10pts)
- ☐ Mature forested wetland (5 pts)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- ☐ Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10pts)
- ☐ Relict Wet Prairies (10pts)
- ☐ Known occurrence state/federal threatened or endangered species (10pts)
- ☐ Significant migratory songbird/water fowl habitat or usage (10pts)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

1	16.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersion, micro topography..

6a. Wetland Vegetation Communities

Score all present using 0 to 3 scale.

1	Aquatic Bed
1	Emergent
	Shrub
	Forest
	Mudflats
1	Open Water
	Other_____.

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- ☐ High (5pts)
- ☐ Moderately high (4pts)
- ☐ Moderate (3pts)
- ☐ Moderately low (2pts)
- ☒ Low (1pts)
- ☐ None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance Tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list.

Add or deduct points for coverage

- ☐ Extensive >75% cover (-5pts)
- ☒ Moderate 25-75% cover (-3pts)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent >5% cover (0pts)
- ☐ Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

0	Vegetated hummocks/tussocks
0	Coarse woody debris >15cn (6in)
0	Standing dead >25cm (10in) dbh
0	Amphibian breeding pools

Micro topography 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

16.5	GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www/epa/state/oh.us/dsw/401/401.html

Last revised 1 February 2001 jjm

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	0

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft^2	yd^2	ft on side	yd on side	ha	m^2	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a.	**Average Buffer Width (abw).** Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: abw = (50m + 25m + 10m + 0m)/4 = 21.25m. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts	WIDE. >50m (164ft) or more around perimeter	☐
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	☐
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	☐
0pts	VERY NARROW. <10m (<32ft) around perimeter.	☒
2b.	**Intensity of predominant surround land use(s).** Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	1
7pts	VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc.	☐
5pts	LOW. Old field (>10 yrs), shrubland, young 2nd growth forest, etc.	☐
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	☐
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	☒

1

Subtotal

1

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic** connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity. A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a.	**Sources of Water.** Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.	1
5pts	High pH groundwater (7.5-9.0)	☐
3pts	Other groundwater	☐
1pt	Precipitation	☒
3pts	Seasonal surface water	☐
5pts	Perennial surface water (lake or stream)	☐
3b.	**Connectivity.** Select all that apply and sum score	1
1pt	**100-year floodplain.** "Floodplain is defined in OAC Rule 3745-1-50(P) as "…the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	☐
1pt	**Between stream/lake and other human land use.** This question asks whether the wetland is located between a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	☐
1pt	**Part of wetland or upland (e.g. forest, prairie) complex.** Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	☐
1pt	**Part of riparian or upland corridor.** See description above.	☒
3c.	**Maximum water depth.** Select only one and assign score. The Rater *does not* need to actually observe the wetland when its water depth is greates in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.	1
3pts	>0.7m (27.6in)	☐
2pts	0.4 to 0.7m (15.7 to 27.6in)	☐
1pt	<0.4m (<15.7in)	☒
3d.	**Duration of inundation/saturation.** Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally	2.5
4pts	Semi permanently to permanently inundated or saturated.	☐
3pts	Regularly inundated or saturated.	☒
2pts	Seasonally inundated.	☒
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	☐

6.5

Subtotal

6.5

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf *(Chamaedaphne calyculata)* bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

☒	ditch(es), in or near the wetland	☐	point source discharges to the (non-storm water)
☐	tile(s), in or near the wetland	☐	filing/grading activities in or near the wetland
☐	dike(s), in or near the wetland	☒	road beds/RR beds in or near the wetland
☐	weir(s), in or near the wetland	☐	dredging activities in or near the wetland
☒	storm water inputs (addition of water)	☐	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 12 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 9.5 9.5

Select one or double check adjoining number and average the score.		**score** 2
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☒

8.5

Subtotal

8.5

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?	**YES** ☐ Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** ☐ Assign a score of 4 since there are no or no apparent modifications.	**NOT SURE** ☐ Double check "none or none apparent" and "recovered" and assign a score of 3.5

Select one or double check adjoining number and average the score.		**score** 2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	☐
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	☐
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	☒
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	☐

4b. **Habitat development.** Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state. 3

7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	☐
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	☐
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	☐
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	☐
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	☒
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	☐
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	☐

13.5

Subtotal

13.5

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the "intactness" the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to "double check" and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

☐	Mowing	☐	Herbaceous layer/aquatic bed removal
☐	Grazing (cattle, sheep, pigs, etc.)	☐	Sedimentation
☐	Clear cutting	☐	Dredging
☐	Selective cutting	☐	Farming
☐	Woody debris removal	☐	Nutrient enrichment, e.g. nuisance algae
☐	Toxic pollutants	☐	Other (specify)
☐	Shrub/sapling removal	☐	Other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	**YES** Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.	**NO** Assign a score of 9 since there are no or no apparent modifications.	**NOT SURE** Double check "none or none apparent" and "recovered" and assign a score of 7.5

Select one or double check adjoining number and average the score.		**score** 2
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	☐
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	☐
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	☒
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	☒

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

☐	Bog (10pts)	☐	Lake plains sand prairies (Oak Openings) (10 pts)
☐	Fen (10 pts)	☐	Relict wet prairies (10 pts)
☐	Old Growth Forest (10 pts)	☐	Known occurrence of threatened/endangered species (10pts)
☐	Mature Forested Wetland (5 pts)	☐	Significant migratory songbird/waterfowl habitat (10 pts)
☐	Coastal wetlands, unrestricted hydrology (10 pts)	☐	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
☐	Coastal wetlands, restricted hydrology (5 pts)		

15.5

Subtotal

15.5

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	**Wetland Vegetation Communities.** Check each community present both vertically and horizontally within the wetland with an area of at least 0.1hectares or 100m^2 (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	3
☒	**Aquatic Bed.** Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed *(Lemna* spp., *spirodela*spp.*)* are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	1
☒	**Emergent.** Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
☐	**Shrub.** Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
☐	**Forested.** Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
☒	**Open water.** The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub_3) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	1
☐	**Other** (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

18.5

Subtotal

18.5

Subtotal from previous page

6b. **Horizontal (plan view) interspersion.** Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	☐
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	☐
3pts	MODERATE. Wetland has a moderate degree of interspersion	☐
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	☐
1pt	LOW. Wetland has a low degree of interspersion	☒
0pts	NONE. Wetland has no plan view interspersion	☐

6c. **Coverage of Invasive Plant Species.** Refer to Table 1 on Page 7 for list. Select only one and assign score.		-3
-5pts	Extensive. >75% areal cover of invasive species	☐
-3pts	Moderate 25-75% areal cover of invasive species	☒
-1pt	Sparse. 5-25% areal cover of invasive species	☐
0pts	Nearly absent. <5% areal cover of invasive species	☐
1pt	Absent	☐

6d. **Microtopography.** Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.	0
Vegetated hummocks and tussocks.	☐
Coarse woody debris >15cm (6in) diameter	☐
Standing dead trees >25cm (10in) diameter at breast height	☐
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	☐

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is 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

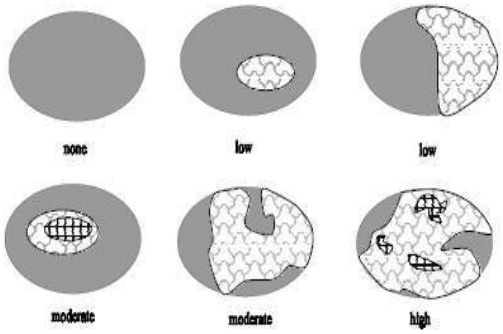


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

16.5

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.oh.us/dsw/401/401.html

Appendix E

QHEI Forms

Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score: 33.5

Stream & Location: ST-1-INT **RM:** _ _ _._ **Date:** 4 / 29 / 26

Scorers Full Name & Affiliation: Agnes Marchlewska, V3 Comp.

River Code: _ _ _-_ _ _-_ _ _ **STORET #:** _ _ _ _ _ _ **Lat./ Long.:** (NAD 83 - decimal °) 39 . 61339 /82 . 83107 **Office verified location** ☐

1] SUBSTRATE

Check **ONLY Two** substrate *TYPE BOXES*; estimate % or note every type present

BEST TYPES	POOL	RIFFLE	OTHER TYPES	POOL	RIFFLE
☐ ☐ BLDR /SLABS [10]			☐ ☐ HARDPAN [4]		
☐ ☐ BOULDER [9]			☐ ☐ DETRITUS [3]		
☐ ☐ COBBLE [8]			☐ ☐ MUCK [2]		
☐ ☐ GRAVEL [7]			☑ ☐ SILT [2]		40
☐ ☑ SAND [6]		60	☐ ☐ ARTIFICIAL [0]		
☐ ☐ BEDROCK [5]					

(Score natural substrates; ignore sludge from point-sources)

NUMBER OF BEST TYPES: ☐ 4 or more [2] ☐ 3 or less [0]

Check ONE (*Or 2 & average*)

ORIGIN
- ☐ LIMESTONE [1]
- ☑ TILLS [1]
- ☐ WETLANDS [0]
- ☐ HARDPAN [0]
- ☐ SANDSTONE [0]
- ☐ RIP/RAP [0]
- ☐ LACUSTURINE [0]
- ☐ SHALE [-1]
- ☐ COAL FINES [-2]

QUALITY

SILT
- ☐ HEAVY [-2]
- ☑ MODERATE [-1]
- ☐ NORMAL [0]
- ☐ FREE [1]

EMBEDDEDNESS
- ☐ EXTENSIVE [-2]
- ☑ MODERATE [-1]
- ☐ NORMAL [0]
- ☐ NONE [1]

Comments

Substrate 7 *Maximum 20*

2] INSTREAM COVER

Indicate presence 0 to 3: **0**-Absent; **1**-Very small amounts or if more common of marginal quality; **2**-Moderate amounts, but not of highest quality or in small amounts of highest quality; **3**-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

0 UNDERCUT BANKS [1]	2 POOLS > 70cm [2]	0 OXBOWS, BACKWATERS [1]
2 OVERHANGING VEGETATION [1]	0 ROOTWADS [1]	3 AQUATIC MACROPHYTES [1]
0 SHALLOWS (IN SLOW WATER) [1]	0 BOULDERS [1]	1 LOGS OR WOODY DEBRIS [1]
0 ROOTMATS [1]		

AMOUNT

Check ONE (*Or 2 & average*)
- ☐ EXTENSIVE >75% [11]
- ☐ MODERATE 25-75% [7]
- ☑ SPARSE 5-<25% [3]
- ☐ NEARLY ABSENT <5% [1]

Comments

Cover 6 *Maximum 20*

3] CHANNEL MORPHOLOGY

Check ONE in each category (*Or 2 & average*)

SINUOSITY
- ☐ HIGH [4]
- ☐ MODERATE [3]
- ☐ LOW [2]
- ☑ NONE [1]

DEVELOPMENT
- ☐ EXCELLENT [7]
- ☐ GOOD [5]
- ☐ FAIR [3]
- ☑ POOR [1]

CHANNELIZATION
- ☐ NONE [6]
- ☐ RECOVERED [4]
- ☐ RECOVERING [3]
- ☑ RECENT OR NO RECOVERY [1]

STABILITY
- ☐ HIGH [3]
- ☐ MODERATE [2]
- ☑ LOW [1]

Comments

Channel 4 *Maximum 20*

4] BANK EROSION AND RIPARIAN ZONE

Check **ONE** in each category for ***EACH BANK*** (*Or 2 per bank & average*)

River right looking downstream

EROSION

L	R	
☑	☑	NONE / LITTLE [3]
☐	☐	MODERATE [2]
☐	☐	HEAVY / SEVERE [1]

RIPARIAN WIDTH

L	R	
☐	☐	WIDE > 50m [4]
☐	☐	MODERATE 10-50m [3]
☑	☐	NARROW 5-10m [2]
☐	☑	VERY NARROW < 5m [1]
☐	☐	NONE [0]

FLOOD PLAIN QUALITY

L	R	
☐	☐	FOREST, SWAMP [3]
☐	☐	SHRUB OR OLD FIELD [2]
☐	☐	RESIDENTIAL, PARK, NEW FIELD [1]
☐	☐	FENCED PASTURE [1]
☑	☐	OPEN PASTURE, ROWCROP [0]

L	R	
☐	☑	CONSERVATION TILLAGE [1]
☑	☐	URBAN OR INDUSTRIAL [0]
☐	☐	MINING / CONSTRUCTION [0]

Indicate predominant land use(s) past 100m riparian.

Comments

Riparian 4.5 *Maximum 10*

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH

Check **ONE** (*ONLY!*)
- ☑ > 1m [6]
- ☐ 0.7-<1m [4]
- ☐ 0.4-<0.7m [2]
- ☐ 0.2-<0.4m [1]
- ☐ < 0.2m [0]

CHANNEL WIDTH

Check ONE (*Or 2 & average*)
- ☐ POOL WIDTH > RIFFLE WIDTH [2]
- ☑ POOL WIDTH = RIFFLE WIDTH [1]
- ☐ POOL WIDTH < RIFFLE WIDTH [0]

CURRENT VELOCITY

Check ALL that apply
- ☐ TORRENTIAL [-1]
- ☐ VERY FAST [1]
- ☐ FAST [1]
- ☐ MODERATE [1]
- ☑ SLOW [1]
- ☐ INTERSTITIAL [-1]
- ☐ INTERMITTENT [-2]
- ☐ EDDIES [1]

Indicate for reach - pools and riffles.

Recreation Potential
Primary Contact
Secondary Contact
(circle one and comment on back)

Comments

Pool / Current 8 *Maximum 12*

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (*Or 2 & average*). ■ NO RIFFLE [metric=0]

RIFFLE DEPTH
- ☐ BEST AREAS > 10cm [2]
- ☐ BEST AREAS 5-10cm [1]
- ☐ BEST AREAS < 5cm [metric=0]

RUN DEPTH
- ☐ MAXIMUM > 50cm [2]
- ☐ MAXIMUM < 50cm [1]

RIFFLE / RUN SUBSTRATE
- ☐ STABLE (e.g., Cobble, Boulder) [2]
- ☐ MOD. STABLE (e.g., Large Gravel) [1]
- ☐ UNSTABLE (e.g., Fine Gravel, Sand) [0]

RIFFLE / RUN EMBEDDEDNESS
- ☐ NONE [2]
- ☐ LOW [1]
- ☐ MODERATE [0]
- ☐ EXTENSIVE [-1]

Comments

Riffle / Run 0 *Maximum 8*

6] GRADIENT

(5 ft/mi)

DRAINAGE AREA (2.49 mi²)

- ☑ VERY LOW - LOW [2-4]
- ☐ MODERATE [6-10]
- ☐ HIGH - VERY HIGH [10-6]

%POOL: 0 **%GLIDE:** 100 **%RUN:** 0 **%RIFFLE:** 0

Gradient 4 *Maximum 10*

A] SAMPLED REACH

Check ALL that apply

METHOD

- [ ] BOAT
- [ ] WADE
- [ ] L. LINE
- [x] OTHER

STAGE

1st -sample pass- 2nd

1st		2nd
☐	HIGH	☐
☑	UP	☐
☐	NORMAL	☐
☐	LOW	☐
☐	DRY	☐

DISTANCE

- [ ] 0.5 Km
- [x] 0.2 Km
- [ ] 0.15 Km
- [ ] 0.12 Km
- [ ] OTHER

_____ meters

CLARITY

1st	--sample pass--	2nd
☐	< 20 cm	☐
☐	20-<40 cm	☐
☐	40-70 cm	☐
☑	> 70 cm/ CTB	☐
☐	SECCHI DEPTH	☐

1st pass _____ cm

2nd _____ cm

CANOPY

- [ ] > 85%- OPEN
- [x] 55%-<85%
- [ ] 30%-<55%
- [ ] 10%-<30%
- [ ] <10%- CLOSED

B] AESTHETICS

- [ ] NUISANCE ALGAE
- [ ] INVASIVE MACROPHYTES
- [ ] EXCESS TURBIDITY
- [ ] DISCOLORATION
- [ ] FOAM / SCUM
- [ ] OIL SHEEN
- [ ] TRASH / LITTER
- [ ] NUISANCE ODOR
- [ ] SLUDGE DEPOSITS
- [ ] CSOs/SSOs/OUTFALLS

C] RECREATION

AREA DEPTH

POOL: ☐ >100ft² ☐ >3ft

D] MAINTENANCE

Circle some & *COMMENT*

PUBLIC / PRIVATE / BOTH / NA
ACTIVE / HISTORIC / BOTH / NA
YOUNG-SUCCESSION-OLD
SPRAY / SNAG / REMOVED
MODIFIED / DIPPED OUT / NA
LEVEED / ONE SIDED
RELOCATED / CUTOFFS
MOVING-BEDLOAD-STABLE
ARMOURED / SLUMPS
ISLANDS / SCOURED
IMPOUNDED / DESICCATED
FLOOD CONTROL / DRAINAGE

E] ISSUES

WWTP / CSO / NPDES / INDUSTRY
HARDENED / URBAN / DIRT&GRIME
CONTAMINATED / LANDFILL
BMPs-CONSTRUCTION-SEDIMENT
LOGGING / IRRIGATION / COOLING
BANK / EROSION / SURFACE
FALSE BANK / MANURE / LAGOON
WASH H_20 / TILE / H_20 TABLE
ACID / MINE / QUARRY / FLOW
NATURAL / WETLAND / STAGNANT
PARK / GOLF / LAWN / HOME
ATMOSPHERE / DATA PAUCITY

F] MEASUREMENTS

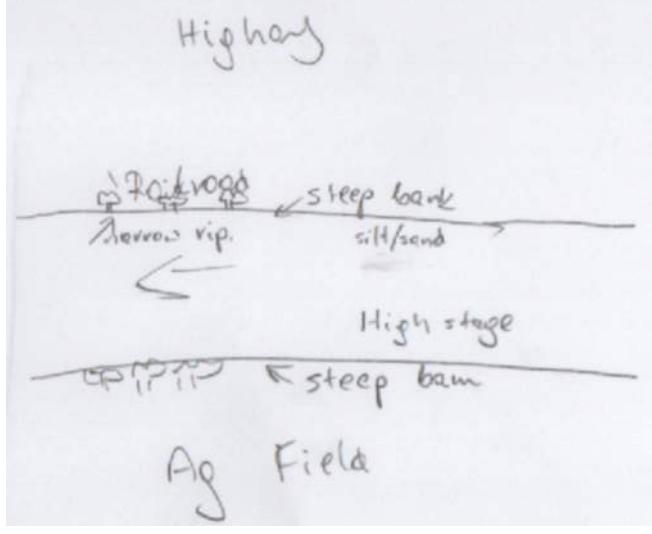
- $\bar{x}$ width
- $\bar{x}$ depth
- max. depth
- $\bar{x}$ bankfull width
- bankfull $\bar{x}$ depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio

Legacy Tree:

Comment RE: Reach consistency/ Is reach typical of steam?*, Recreation/* Observed - Inferred, *Other/* Sampling observations, Concerns, Access directions, etc.

The stream observations conducted from the top of the bank due to high flow conditions and safty concerns.

Stream Drawing:



Appendix F

HHEI Forms

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : 42

SITE NAME/LOCATION: ST-2-INT Razzler ROW

SITE NUMBER: _____ RIVER BASIN: _____ DRAINAGE AREA (mi²): 0.41

LENGTH OF STREAM REACH (ft): 52 LAT.: 38.57322 LONG.: -82.77737 RIVER CODE: _____ RIVER MILE: _____

DATE: 04/29/26 SCORER: A. Marchlew COMMENTS: _____

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]	75%
☐	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]	0%	☐	CLAY or HARDPAN [0 pt]	0%
☐	GRAVEL (2-64 mm) [9 pts]	10%	☐	MUCK [0 pts]	0%
☐	SAND (<2 mm) [6 pts]	15%	☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 0.00% **(A)** Substrate Percentage Check: 100% **(B)**

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 9 **TOTAL NUMBER OF SUBSTRATE TYPES:** 3

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):** 15

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):** 0.60

HHEI Metric Points

Substrate Max = 40: 12 **A + B**

Pool Depth Max = 30: 25

Bankfull Width Max=30: 5

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		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 ☐ 0.5 ☐ 1.0 ☐ 1.5 ☐ 2.0 ☐ 2.5 ☐ 3.0 ☐ >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: **Greenup, Ohio USGS 7.5-Minute Quadra** NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: **Lawrence** Township / City: **Franklin Furnace**

MISCELLANEOUS

Base Flow Conditions? (Y/N): **Y** Date of last precipitation: _____ Quantity: **0.00**

Photograph Information: _____

Elevated Turbidity? (Y/N): **N** Canopy (% open): **100%**

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) **N** If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): **N** (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

FLOW ➔

Save as pdf Reset Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : **52**

SITE NAME/LOCATION **ST-4-INT Razzler ROW**

SITE NUMBER _____ RIVER BASIN _____ DRAINAGE AREA (mi²) **0.04**

LENGTH OF STREAM REACH (ft) **73** LAT. **38.59838** LONG. **-82.81401** RIVER CODE _____ RIVER MILE _____

DATE **04/29/26** SCORER **A. Marchlew** COMMENTS _____

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]	35%
☐	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]	0%	☐	CLAY or HARDPAN [0 pt]	10%
☐	GRAVEL (2-64 mm) [9 pts]	0%	☐	MUCK [0 pts]	0%
☐	SAND (<2 mm) [6 pts]	55%	☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0.00%** **(A)** Substrate Percentage Check 100% **(B)**

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **9** **TOTAL NUMBER OF SUBSTRATE TYPES:** **3**

HHEI Metric Points

Substrate 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]

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters):** **31**

Pool Depth Max = 30

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]		

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters):** **1.80**

Bankfull Width Max=30

20

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		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
☐ Subsurface flow with isolated pools (Interstitial)
☐ Moist Channel, isolated pools, no flow (Intermittent)
☐ Dry channel, no water (Ephemeral)

COMMENTS _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐ None ☐ 0.5 ☐ 1.0 ☐ 1.5 ☐ 2.0 ☐ 2.5 ☐ 3.0 ☐ >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: Greenup, Ohio USGS 7.5-Minute Quadra NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Scioto Township / City: Franklin Furnace

MISCELLANEOUS

Base Flow Conditions? (Y/N): N Date of last precipitation: _____ Quantity: 0.00

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 0%

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) N 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

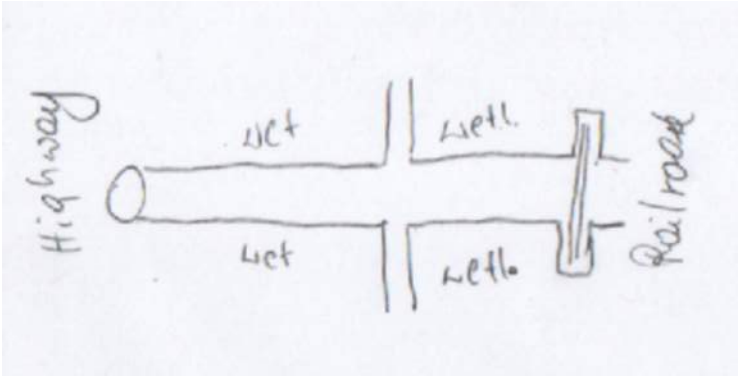
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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

FLOW →



Save as pdf Reset Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : 55

SITE NAME/LOCATION: ST-3-INT Razzler ROW

SITE NUMBER: _____ RIVER BASIN: _____ DRAINAGE AREA (mi²): 0.06

LENGTH OF STREAM REACH (ft): 63 LAT.: 38.58090 LONG.: -82.79241 RIVER CODE: _____ RIVER MILE: _____

DATE: 04/29/26 SCORER: A. Marchlew COMMENTS: _____

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]	10%
☐	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]	60%	☐	CLAY or HARDPAN [0 pt]	10%
☐	GRAVEL (2-64 mm) [9 pts]	10%	☐	MUCK [0 pts]	10%
☐	SAND (<2 mm) [6 pts]	0%	☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 60.00% **(A)** Substrate Percentage Check: 100% **(B)**

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 **TOTAL NUMBER OF SUBSTRATE TYPES:** 5

HHEI Metric Points

Substrate 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]

COMMENTS: _____ **MAXIMUM POOL DEPTH (centimeters):** 25

Pool Depth Max = 30

15

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):** 1.00

Bankfull Width Max=30

20

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		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: Greenup, Ohio USGS 7.5-Minute Quadra NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: Scioto Township / City: Franklin Furnace

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: _____ Quantity: 0.00

Photograph Information: _____

Elevated Turbidity? (Y/N): N Canopy (% open): 100%

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) N If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): N (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

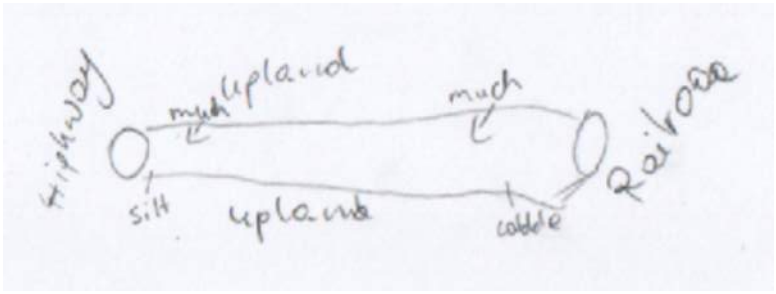
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

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

FLOW →



Save as pdf Reset Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : 64

SITE NAME/LOCATION: ST-5-INT Razzler ROW

SITE NUMBER: _____ RIVER BASIN: _____ DRAINAGE AREA (mi²): 0.06

LENGTH OF STREAM REACH (ft): 113 LAT.: 38.61050 LONG.: -82.82765 RIVER CODE: _____ RIVER MILE: _____

DATE: 04/29/26 SCORER: A. Marchlew COMMENTS: _____

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]	5%
☐	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]	0%	☐	CLAY or HARDPAN [0 pt]	10%
☐	GRAVEL (2-64 mm) [9 pts]	60%	☐	MUCK [0 pts]	0%
☐	SAND (<2 mm) [6 pts]	25%	☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 0.00% **(A)** Substrate Percentage Check: 100% **(B)**

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 **TOTAL NUMBER OF SUBSTRATE TYPES:** 4

HHEI Metric Points

Substrate Max = 40

19

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]

COMMENTS: _____ **MAXIMUM POOL DEPTH (centimeters):** 25

Pool Depth Max = 30

30

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):** 1.21

Bankfull Width Max=30

15

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		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
☐ Subsurface flow with isolated pools (Interstitial)
☐ Moist Channel, isolated pools, no flow (Intermittent)
☐ Dry channel, no water (Ephemeral)

COMMENTS: _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐ None ☐ 0.5 ☐ 1.0 ☐ 1.5 ☐ 2.0 ☐ 2.5 ☐ 3.0 ☐ >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: **Greenup, Ohio USGS 7.5-Minute Quadra** NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: **Scioto** Township / City: **Franklin Furnace**

MISCELLANEOUS

Base Flow Conditions? (Y/N): **Y** Date of last precipitation: _____ Quantity: **0.00**

Photograph Information: _____

Elevated Turbidity? (Y/N): **N** Canopy (% open): **100%**

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) **N** If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): **N** (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**

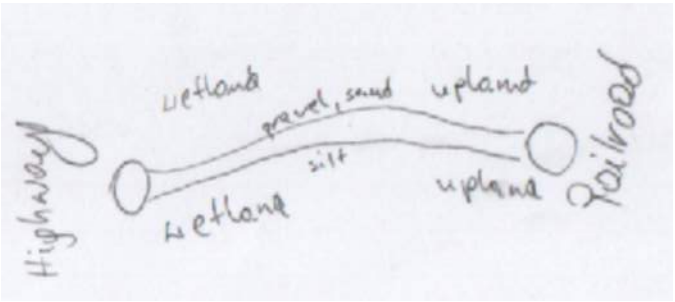
Frogs or Tadpoles Observed? (Y/N) **N** Voucher? (Y/N) **N** Aquatic Macroinvertebrates Observed? (Y/N) **N** Voucher? (Y/N) **N**

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

FLOW →



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