

Application for Section 401 Water Quality Certification

Division of Surface Water

401 Water Quality Certification and Isolated Wetland Permitting Unit

Section 1: Applicant (Project Proponent) and Consultant/Agent Information

	Applicant (Project Proponent)	Consultant/Agent
Company/Agency Name:	Amazon Data Services, Inc.	Smart Services, Inc
Address:	410 Terry Ave N, Seattle, WA 98109	88 W Church St, Newark, OH 43055
Contact Name/Title:	Robert Truedinger/Director, Enviro	Chris Klein/Env. Scientist
Contact Phone:	(206) 492-9475	(330) 962-6582
Alternate Phone:		
Contact FAX:		
Contact Email:	robbtrue@amazon.com	cklein@smartservices-inc.com
Technical Contact:	Seth Bell	Mitchel Strain
Technical Phone:	(937) 572-5669	(614) 202-8621
Technical Email:	sefb@amazon.com	mstrain@smartservices-inc.com

Section 2: Project Information

A. Project Name: CMH-232

B. Has a pre-filing (pre-application) meeting request

been submitted?

☐ Yes

☒ No

401 Pre-application Reviewer:

Date of pre-filing meeting request submittal:

C. Brief Project Description: The proposed project will convert 236.7 acres of agricultural and residential land into a data center in Sidney, Shelby County, Ohio. The purpose of the project is to improve data center infrastructure in Shelby County.

D. Construction Start Date: 03/01/2026 **End Date:** 10/31/2026

E. Is any portion of the activity complete now?

☐ Yes

☒ No

Is this an "After-The-Fact" permit application?

☐ Yes

☒ No

Description of completed activities and its impact on the waters of the state.:

F. Coordinates LATITUDE: 40.266278 **LONGITUDE:** -84.194246

G. Project Address: Millcreek Road, Sidney, OH 43103

Location Description: The project site is located west of Millcreek Road, west of South Vandemark Road, and northwest of Fair Road in Sidney, Shelby County, Ohio.

ZIP Code(s): 43103

County(ies):

Shelby

Township(s):

Clinton

H. 8 or 12 Digit HUC Number:

050800010703

050800010604

I. Watershed Name:

Brush Creek-Great Miami River

Mill Creek-Loramie Creek

J. U.S. Army Corps of Engineers District: Huntington

K. Proposed impacts to "waters of the state":

☐ Beach Nourishment

☐ Blasting

☐ Breakwater

☐ Bulkhead

☐ Bridge/Culvert

☐ Dam

☐ Dredge

☒ Fill

☐ Groin/Jetty

☐ Levees/Berms

☐ Mine Through

☐ Revetment

☐ Bank Stabilization

☐ Stream Channelization

☐ Stream Relocation

☐ Water Body Crossing

☐ Weirs

☐ Other

L. Other water related permits issued or required include:

☐ Individual 404 Permit

☐ Nationwide Permit

- ☐ Section 9 Permit
- ☐ Section 10 Permit
- ☐ Isolated Wetland Permit
- ☒ NPDES Permit
- ☐ Permit to Install
- ☐ Regional General Permit
- ☐ ODNR Permit
- ☐ Oil & Gas Storm Water General Permit

Permit Type: General

Will be Submitted on: 01/01/2026

Section 3: Fees

Are you exempt from fees?	☐ Yes	☒ No (If YES, leave fee section blank)
Are you a County, Township, or Municipal Corporation?	☐ Yes	☒ No
If YES, fee cap is \$5,000.00 instead of \$25,000.00		
Application Fee =		\$200.00
Review Fees		
Wetland Acres Impacted	0.42 x \$500.00 =	\$210.00
	Total Review Fees =	\$0.00
	Total Fees (\$200 Application Fee + Total Review Fees) =	\$410.00
	Due with the 401 WQC Application (Application Fee + 1/2 of Review Fee) =	\$410.00
	Due at the 401 WQC Issuance (1/2 of Review Fee) =	\$0.00
PLEASE MAKE FEE CHECK PAYABLE TO: "TREASURER, STATE OF OHIO"		

Section 4: Submitted Documentation

Check all documents/items that have been submitted.

☐ Submitted Pre-filing Meeting Request

☐ Proposed Lake Impacts Table

☐ Proposed Stream Impacts Table

☐ Proposed Wetland Impacts Table

☐ Additional Impact Tables

☒ Water Delineation Report

Upload File(s): Wetland Delineation Report.pdf

☒ Site Photographs

Upload File(s): Photo Location Maps.pdf, Attachment B- Site Photographs.pdf

☒ Ohio Rapid Assessment Method (ORAM) Forms

Upload File(s): OEPA ORAM Forms.pdf, 25-1064 SMART - CMH-232.pdf, IPAC Letter.pdf

☐ Habitat Evaluations

☐ Biological Sampling Information

☒ US Army Corps of Engineers Jurisdictional Determination

Upload File(s): LRH-2024-927 Joslin Site JD Letter.pdf

☐ US Army Corps of Engineers Public Notice or Provisional Nationwide Permit

☐ Ohio Department of Natural Resources - Natural Heritage Database Request

☐ US Fish & Wildlife Service - Threatened and Endangered Species Coordination

☐ Proposed Project Antidegradation Analysis

☒ Proposed Project Mapping

Upload File(s): IWP Cover Letter Revision.pdf, Attachment A- Mapping.pdf

☒ Proposed Mitigation Plan

Upload File(s): OVERALL SITE PLAN.pdf, IWP Cover Letter Revision.pdf

Section 5: Applicant and Agent Signature

I hereby designate and authorize the agent/consultant identified in Section 1 to act on my behalf in the processing of this application, and to furnish, upon request, supplemental information in support of the application:

Application is hereby made for a Section 401 Water Quality Certification. The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief. The project proponent hereby requests that the certifying authority review and take action on the CWA 401 certification request within the applicable reasonable period of time.

Applicant Name:
Christopher Klein

Title:
Environmental Scientist

Signature:
Electronically submitted by 74497915

Date:
Electronically submitted on 12/10/2025

Ohio Rapid Assessment Method Form for Wetland Categorization Version 5.0

FINAL SCORE: 31.0**CATEGORY:** 2**Instructions:**

The investigator is **STRONGLY URGED** to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland may be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is **VERY IMPORTANT** to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To properly answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries." Refer to the most

ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: https://epa.ohio.gov/static/Portals/35/401/oram50sc_s.pdf

Background Information**Rater Name:** Philip Renner**Affiliation Name:** WSP USA**Address:** 312 Elm Street, Suite 2500, Cincinnati, OH 45202**Rater Phone:** (937) 570-7691**Rater Email Address:** philip.renner@wsp.com**Wetland Information****Name of Wetland:** Wetland 1**Vegetation Communit(ies):** PFO**HGM Class(es):**☐ Bog☐ Fringing☐ Riverine☐ Coastal☐ Impoundment☐ Slope☒ Depression☐ Mitigation☐ Upland**Wetland location description:** Located near the northwest corner of the project site.**Upload Wetland location Map File(s):** Joslin_WDR_3_Environmental_Survey_Results_20250204.pdf**Latitude:** 40.272400**Longitude:** -84.201700**USGS Quad Name:****County(ies):**

Shelby

Township(s):

Clinton

Hydrologic Unit Code (HUC8): 05120103 Mississinewa**Date of Site Visit:** 07/08/2024**Attached Maps**☒ National Wetland Inventory Map☐ Ohio Wetland Inventory Map☒ Soil Survey☒ Delineation Report/Map**Wetland Size:** 0.41**Upload Sketch File(s): include north arrow, relationship with other surface waters, vegetation zones, etc.**

Joslin_WDR_3_Environmental_Survey_Results_20250204.pdf

Comments, Narrative Discussion, Justification of Category Changes.**FINAL SCORE:** 31.0**CATEGORY:** 2**Scoring Boundary Worksheet****Instructions:**

The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

Steps in properly establishing scoring boundaries

Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	Y
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	Y
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	Y
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	Y
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	NA
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	NA

Narrative Rating Field Form**Instructions:**

Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

Steps in properly establishing scoring boundaries		
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "Critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	No
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	No
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	No
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	No
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i>, <i>Lythrum salicaria</i>, or <i>Phragmites australis</i>, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	No
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum spp.</i>, 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	No
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	No
8a	Old Growth Forest. Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	No
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	No
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	No
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	No
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	No

9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	No
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	No
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	No
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	No

Quantitative Rating

Metric 1. Wetland Area Size. (The maximum score is 6)

Score for Metric 1: 2.0

Subtotal Score for Metric 1: 2.0

Select one size and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4) (3 pts)
- ☒ 0.3 to <3 acres (0.12 to <1.2ha) (2 pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (<0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use. (The maximum score is 14)

Score for Metric 2: 4.0

Subtotal Score for Metric 1 and 2: 6.0

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☒ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☐ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, svannah, wildlife area, etc. (7)
- ☒ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology. (The maximum score is 30)

Score for Metric 3: 13.0

Subtotal Score for Metric 1 - Metric 3: 19.0

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☐ Between stream/lake and other human use (1)
- ☒ Part of wetland/upland (e.g. forest), complex (1)
- ☐ Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7m (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or double check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☒ Seasonally inundated (2)
- ☐ Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12)
- ☒ Recovered (7)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed.

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

Other Describe:

Metric 4. Habitat Alteration and Development. (The maximum score is 20)

Score for Metric 4: 10.0

Subtotal Score for Metric 1 - Metric 4: 29.0

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)

- ☒ Recovered (3)
- ☒ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☒ Fair (3)
- ☐ Poor to Fair (2)
- ☐ Poor (1)

4c. Habitat alteration. Score one or double check and average.

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

Check all disturbances observed.

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

Other Describe:

Metric 5. Special Wetlands. (The maximum score is 10)

Score for Metric 5: 0.0

Subtotal Score for Metric 1 - Metric 5: 29.0

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)

- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersions, microtopography. (The maximum score is 20)

Score for Metric 6: 2.0

Subtotal Score for Metric 1 - Metric 6: 31.0

6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.

Aquatic bed - Scale: N/A

Emergent - Scale: 1

Shrub - Scale: 0

Forest - Scale: 1

Mudflats - Scale: N/A

Open Water - Scale: N/A

Other - Scale: N/A

Other Describe:

6b. Horizontal (plan view) Interspersion. Select only one.

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

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage.

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

6d. Microtopography. Score all present using 0 to 3 scale.

Vegetated hummocks/tussocks - Scale: 0

Coarse woody debris >15cm (6in) - Scale: 0

Standing dead >25cm (10in) dbh - Scale: 0

Amphibian breeding pools - Scale: 1

ORAM Summary Worksheet for Narrative Rating

Question	Answer and Result
Question 1. Critical Habitat	No
Question 2. Threatened or Endangered Species	No
Question 3. High Quality Natural Wetland	No
Question 4. Significant bird habitat	No
Question 5. Category 1 Wetlands	No
Question 6. Bogs	No

Question 7. Fens	No
Question 8a. Old Growth Forest	No
Question 8b. Mature Forested Wetland	No
Question 9b. Lake Erie Wetlands - Restricted	No
Question 9d. Lake Erie Wetlands - Unrestricted with native plants	No
Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No
Question 10. Oak Openings	No
Question 11. Relict Wet Prairies	No

ORAM Summary Worksheet for Quantitative Rating

Metric	Score
Metric 1. Size	2.0
Metric 2. Buffers and surrounding land use	4.0
Metric 3. Hydrology	13.0
Metric 4. Habitat	10.0
Metric 5. Special Wetland Communities	0.0
Metric 6. Plant communities, interspersions, microtopography	2.0
TOTAL SCORE	31.0
Category based on score breakpoints	2

Quantitative Rating Total Quantitative Rating Scoring Breakpoints

Category	ORAM Score
1	0 - 29.9
1 or 2 gray zone	30 - 34.9
2	35 - 59.9
2 or 3 gray zone	60 - 64.9
3	65 - 100

Wetland Categorization Worksheet

Choices	Answer and Result	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	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	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	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 wetland?	No	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.

Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES - Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria.	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?	NO - Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.
FINAL SCORE: <u>31.0</u> CATEGORY: <u>2</u>		

Ohio Rapid Assessment Method Form for Wetland Categorization Version 5.0

FINAL SCORE: 20.0

CATEGORY: 1

Instructions:

The investigator is **STRONGLY URGED** to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland may be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is **VERY IMPORTANT** to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To properly answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries." Refer to the most

ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: https://epa.ohio.gov/static/Portals/35/401/oram50sc_s.pdf

Background Information

Rater Name: Philip Renner

Affiliation Name: WSP USA

Address: 312 Elm Street, Suite 2500, Cincinnati, OH 45202

Rater Phone: (937) 570-7691

Rater Email Address: philip.renner@wsp.com

Wetland Information

Name of Wetland: Wetland 2

Vegetation Communit(ies): PEM

HGM Class(es):

- | | | | |
|--------------------------------------|-----------------------------------|--|-------------------------------------|
| ☐ Bog | ☐ Fringing | ☐ Riverine | ☐ Coastal |
| ☐ Impoundment | ☐ Slope | ☒ Depression | ☐ Mitigation |
| ☐ Upland | | | |

Wetland location description: Wetland 2 is in the middle of the project site, located amongst agricultural fields.

Upload Wetland location Map File(s): A9rrimc2_p07yls_sgw.pdf

Latitude: 40.269300

Longitude: -84.196800

USGS Quad Name: Sidney, Ohio

County(ies):

Township(s):

Shelby

Clinton

Hydrologic Unit Code (HUC8): 05120103 Mississinewa

Date of Site Visit: 07/08/2024

Attached Maps

- ☒ National Wetland Inventory Map
- ☐ Ohio Wetland Inventory Map
- ☒ Soil Survey
- ☒ Delineation Report/Map

Wetland Size: 0.17

Upload Sketch File(s): include north arrow, relationship with other surface waters, vegetation zones, etc.

A9rrimc2_p07yls_sgw.pdf

Comments, Narrative Discussion, Justification of Category Changes.**FINAL SCORE: 20.0****CATEGORY: 1****Scoring Boundary Worksheet****Instructions:**

The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

Steps in properly establishing scoring boundaries

Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	Y
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	Y
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	Y
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	Y
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	NA
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	NA

Narrative Rating Field Form**Instructions:**

Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

Steps in properly establishing scoring boundaries		
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "Critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	No
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	No
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	No
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	No
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i>, <i>Lythrum salicaria</i>, or <i>Phragmites australis</i>, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	No
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum spp.</i>, 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	No
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	No
8a	Old Growth Forest. Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	No
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	No
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	No
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	No
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	No

9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	No
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	No
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	No
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	No

Quantitative Rating

Metric 1. Wetland Area Size. (The maximum score is 6)

Score for Metric 1: 1.0

Subtotal Score for Metric 1: 1.0

Select one size and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4) (3 pts)
- ☐ 0.3 to <3 acres (0.12 to <1.2ha) (2 pts)
- ☒ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (<0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use. (The maximum score is 14)

Score for Metric 2: 1.0

Subtotal Score for Metric 1 and 2: 2.0

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☐ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, svannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology. (The maximum score is 30)

Score for Metric 3: 9.0

Subtotal Score for Metric 1 - Metric 3: 11.0

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☐ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☒ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☐ Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7m (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or double check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☒ Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12)
- ☒ Recovered (7)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed.

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

Other Describe:

Metric 4. Habitat Alteration and Development. (The maximum score is 20)

Score for Metric 4: 7.0

Subtotal Score for Metric 1 - Metric 4: 18.0

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)

- ☐ Recovered (3)
- ☒ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☐ Fair (3)
- ☒ Poor to Fair (2)
- ☐ Poor (1)

4c. Habitat alteration. Score one or double check and average.

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

Check all disturbances observed.

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

Other Describe:

Metric 5. Special Wetlands. (The maximum score is 10)

Score for Metric 5: 0.0

Subtotal Score for Metric 1 - Metric 5: 18.0

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)

- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersions, microtopography. (The maximum score is 20)

Score for Metric 6: 2.0

Subtotal Score for Metric 1 - Metric 6: 20.0

6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.

Aquatic bed - Scale: N/A

Emergent - Scale: 1

Shrub - Scale: N/A

Forest - Scale: N/A

Mudflats - Scale: N/A

Open Water - Scale: N/A

Other - Scale: N/A

Other Describe:

6b. Horizontal (plan view) Interspersion. Select only one.

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

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage.

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

6d. Microtopography. Score all present using 0 to 3 scale.

Vegetated hummocks/tussocks - Scale: 0

Coarse woody debris >15cm (6in) - Scale: 0

Standing dead >25cm (10in) dbh - Scale: 0

Amphibian breeding pools - Scale: 0

ORAM Summary Worksheet for Narrative Rating

Question	Answer and Result
Question 1. Critical Habitat	No
Question 2. Threatened or Endangered Species	No
Question 3. High Quality Natural Wetland	No
Question 4. Significant bird habitat	No
Question 5. Category 1 Wetlands	No
Question 6. Bogs	No

Question 7. Fens	No
Question 8a. Old Growth Forest	No
Question 8b. Mature Forested Wetland	No
Question 9b. Lake Erie Wetlands - Restricted	No
Question 9d. Lake Erie Wetlands - Unrestricted with native plants	No
Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No
Question 10. Oak Openings	No
Question 11. Relict Wet Prairies	No

ORAM Summary Worksheet for Quantitative Rating

Metric	Score
Metric 1. Size	1.0
Metric 2. Buffers and surrounding land use	1.0
Metric 3. Hydrology	9.0
Metric 4. Habitat	7.0
Metric 5. Special Wetland Communities	0.0
Metric 6. Plant communities, interspersions, microtopography	2.0
TOTAL SCORE	20.0
Category based on score breakpoints	1

Quantitative Rating Total Quantitative Rating Scoring Breakpoints

Category	ORAM Score
1	0 - 29.9
1 or 2 gray zone	30 - 34.9
2	35 - 59.9
2 or 3 gray zone	60 - 64.9
3	65 - 100

Wetland Categorization Worksheet

Choices	Answer and Result	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	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	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	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 wetland?	YES - Wetland is assigned to the appropriate category based on the scoring range	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.

Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	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?	NO - Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.
FINAL SCORE: <u>20.0</u> CATEGORY: <u>1</u>		

Ohio Rapid Assessment Method Form for Wetland Categorization Version 5.0

FINAL SCORE: 23.0**CATEGORY:** 1

Instructions:

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The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland may be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

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Background Information

Rater Name: Philip Renner**Affiliation Name:** WSP USA**Address:** 312 Elm Street, Suite 2500, Cincinnati, OH 45202**Rater Phone:** (937) 570-7691**Rater Email Address:** philip.renner@wsp.com

Wetland Information

Name of Wetland: Wetland 3a**Vegetation Communit(ies):** PEM**HGM Class(es):**☐ Bog☐ Fringing☐ Riverine☐ Coastal☐ Impoundment☐ Slope☒ Depression☐ Mitigation☐ Upland

Wetland location description: Wetland 3a surrounds pond 1 (0.5 ac.) and is located in between structures adjacent to the southern project site boundary.

Upload Wetland location Map File(s): A9rrimc2_p07yls_sgww.pdf**Latitude:** 40.266400**Longitude:** -84.193400**USGS Quad Name:** Sidney, Ohio**County(ies):**

Shelby

Township(s):

Clinton

Hydrologic Unit Code (HUC8): 05120103 Mississinewa**Date of Site Visit:** 07/08/2024

Attached Maps

☒ National Wetland Inventory Map☐ Ohio Wetland Inventory Map☒ Soil Survey☒ Delineation Report/Map**Wetland Size:** 0.24**Upload Sketch File(s):** include north arrow, relationship with other surface waters, vegetation zones, etc.

A9rrimc2_p07yls_sgww.pdf

Comments, Narrative Discussion, Justification of Category Changes.**FINAL SCORE: 23.0****CATEGORY: 1****Scoring Boundary Worksheet****Instructions:**

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Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	Y
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	Y
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	NA
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	NA

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Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

Steps in properly establishing scoring boundaries		
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "Critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	No
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	No
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	No
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	No
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i>, <i>Lythrum salicaria</i>, or <i>Phragmites australis</i>, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	No
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum spp.</i>, 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	No
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	No
8a	Old Growth Forest. Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	No
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	No
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	No
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	No
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	No

9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	No
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	No
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	No
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	No

Quantitative Rating

Metric 1. Wetland Area Size. (The maximum score is 6)

Score for Metric 1: 1.0

Subtotal Score for Metric 1: 1.0

Select one size and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4) (3 pts)
- ☐ 0.3 to <3 acres (0.12 to <1.2ha) (2 pts)
- ☒ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (<0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use. (The maximum score is 14)

Score for Metric 2: 1.0

Subtotal Score for Metric 1 and 2: 2.0

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☐ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, svannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology. (The maximum score is 30)

Score for Metric 3: 12.0

Subtotal Score for Metric 1 - Metric 3: 14.0

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☒ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☐ Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7m (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or double check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☒ Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12)
- ☒ Recovered (7)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed.

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

Other Describe:

Metric 4. Habitat Alteration and Development. (The maximum score is 20)

Score for Metric 4: 7.0

Subtotal Score for Metric 1 - Metric 4: 21.0

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)

- ☐ Recovered (3)
- ☒ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☐ Fair (3)
- ☒ Poor to Fair (2)
- ☐ Poor (1)

4c. Habitat alteration. Score one or double check and average.

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

Check all disturbances observed.

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

Other Describe:

Metric 5. Special Wetlands. (The maximum score is 10)

Score for Metric 5: 0.0

Subtotal Score for Metric 1 - Metric 5: 21.0

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)

- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersions, microtopography. (The maximum score is 20)

Score for Metric 6: 2.0

Subtotal Score for Metric 1 - Metric 6: 23.0

6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.

Aquatic bed - Scale: N/A

Emergent - Scale: 1

Shrub - Scale: N/A

Forest - Scale: N/A

Mudflats - Scale: N/A

Open Water - Scale: N/A

Other - Scale: N/A

Other Describe:

6b. Horizontal (plan view) Interspersion. Select only one.

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

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage.

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

6d. Microtopography. Score all present using 0 to 3 scale.

Vegetated hummocks/tussocks - Scale: 0

Coarse woody debris >15cm (6in) - Scale: 0

Standing dead >25cm (10in) dbh - Scale: 0

Amphibian breeding pools - Scale: 0

ORAM Summary Worksheet for Narrative Rating

Question	Answer and Result
Question 1. Critical Habitat	No
Question 2. Threatened or Endangered Species	No
Question 3. High Quality Natural Wetland	No
Question 4. Significant bird habitat	No
Question 5. Category 1 Wetlands	No
Question 6. Bogs	No

Question 7. Fens	No
Question 8a. Old Growth Forest	No
Question 8b. Mature Forested Wetland	No
Question 9b. Lake Erie Wetlands - Restricted	No
Question 9d. Lake Erie Wetlands - Unrestricted with native plants	No
Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No
Question 10. Oak Openings	No
Question 11. Relict Wet Prairies	No

ORAM Summary Worksheet for Quantitative Rating

Metric	Score
Metric 1. Size	1.0
Metric 2. Buffers and surrounding land use	1.0
Metric 3. Hydrology	12.0
Metric 4. Habitat	7.0
Metric 5. Special Wetland Communities	0.0
Metric 6. Plant communities, interspersions, microtopography	2.0
TOTAL SCORE	23.0
Category based on score breakpoints	1

Quantitative Rating Total Quantitative Rating Scoring Breakpoints

Category	ORAM Score
1	0 - 29.9
1 or 2 gray zone	30 - 34.9
2	35 - 59.9
2 or 3 gray zone	60 - 64.9
3	65 - 100

Wetland Categorization Worksheet

Choices	Answer and Result	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	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	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	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 wetland?	YES - Wetland is assigned to the appropriate category based on the scoring range	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.

Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	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?	NO - Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.
FINAL SCORE: <u>23.0</u> CATEGORY: <u>1</u>		

Instructions:

The investigator is **STRONGLY URGED** to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland may be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is **VERY IMPORTANT** to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To properly answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries." Refer to the most

ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: https://epa.ohio.gov/static/Portals/35/401/oram50sc_s.pdf

Background Information**Rater Name:** Philip Renner**Affiliation Name:** WSP USA**Address:** 312 Elm Street, Suite 2500, Cincinnati, OH 45202**Rater Phone:** (937) 570-7691**Rater Email Address:** philip.renner@wsp.com**Wetland Information****Name of Wetland:** Wetland 4**Vegetation Communit(ies):** PEM**HGM Class(es):**☐ Bog☐ Fringing☐ Riverine☐ Coastal☐ Impoundment☐ Slope☒ Depression☐ Mitigation☐ Upland**Wetland location description:** Wetland 4 is located near the southeast corner of the project site.**Upload Wetland location Map File(s):** A9rrimc2_p07yls_sgw.pdf**Latitude:** 40.266400**Longitude:** -84.189500**USGS Quad Name:****County(ies):**

Shelby

Township(s):

Clinton

Hydrologic Unit Code (HUC8): 05120103 Mississinewa**Date of Site Visit:** 07/08/2024**Attached Maps**☒ National Wetland Inventory Map☐ Ohio Wetland Inventory Map☒ Soil Survey☒ Delineation Report/Map**Wetland Size:** 0.22**Upload Sketch File(s):** include north arrow, relationship with other surface waters, vegetation zones, etc.

A9rrimc2_p07yls_sgw.pdf

Comments, Narrative Discussion, Justification of Category Changes.**FINAL SCORE:** 18.0**CATEGORY:** 1**Scoring Boundary Worksheet****Instructions:**

The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

Steps in properly establishing scoring boundaries

Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	Y
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	Y
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	Y
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	Y
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	NA
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	NA

Narrative Rating Field Form**Instructions:**

Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

Steps in properly establishing scoring boundaries		
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "Critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	No
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	No
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	No
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	No
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i>, <i>Lythrum salicaria</i>, or <i>Phragmites australis</i>, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	No
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum spp.</i>, 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	No
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	No
8a	Old Growth Forest. Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	No
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	No
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	No
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	No
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	No

9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	No
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	No
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	No
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	No

Quantitative Rating

Metric 1. Wetland Area Size. (The maximum score is 6)

Score for Metric 1: 2.0

Subtotal Score for Metric 1: 2.0

Select one size and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4) (3 pts)
- ☒ 0.3 to <3 acres (0.12 to <1.2ha) (2 pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (<0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use. (The maximum score is 14)

Score for Metric 2: 1.0

Subtotal Score for Metric 1 and 2: 3.0

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☐ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, svannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology. (The maximum score is 30)

Score for Metric 3: 12.0

Subtotal Score for Metric 1 - Metric 3: 15.0

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☒ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☐ Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7m (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or double check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☒ Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12)
- ☒ Recovered (7)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed.

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

Other Describe:

Metric 4. Habitat Alteration and Development. (The maximum score is 20)

Score for Metric 4: 7.0

Subtotal Score for Metric 1 - Metric 4: 22.0

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)

- ☐ Recovered (3)
- ☒ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☐ Fair (3)
- ☒ Poor to Fair (2)
- ☐ Poor (1)

4c. Habitat alteration. Score one or double check and average.

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

Check all disturbances observed.

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

Other Describe:

Metric 5. Special Wetlands. (The maximum score is 10)

Score for Metric 5: 0.0

Subtotal Score for Metric 1 - Metric 5: 22.0

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)

- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersions, microtopography. (The maximum score is 20)

Score for Metric 6: -4.0

Subtotal Score for Metric 1 - Metric 6: 18.0

6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.

Aquatic bed - Scale: N/A

Emergent - Scale: 1

Shrub - Scale: N/A

Forest - Scale: N/A

Mudflats - Scale: N/A

Open Water - Scale: N/A

Other - Scale: N/A

Other Describe:

6b. Horizontal (plan view) Interspersion. Select only one.

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

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage.

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

6d. Microtopography. Score all present using 0 to 3 scale.

Vegetated hummocks/tussocks - Scale: 0

Coarse woody debris >15cm (6in) - Scale: 0

Standing dead >25cm (10in) dbh - Scale: 0

Amphibian breeding pools - Scale: 0

ORAM Summary Worksheet for Narrative Rating

Question	Answer and Result
Question 1. Critical Habitat	No
Question 2. Threatened or Endangered Species	No
Question 3. High Quality Natural Wetland	No
Question 4. Significant bird habitat	No
Question 5. Category 1 Wetlands	No
Question 6. Bogs	No

Question 7. Fens	No
Question 8a. Old Growth Forest	No
Question 8b. Mature Forested Wetland	No
Question 9b. Lake Erie Wetlands - Restricted	No
Question 9d. Lake Erie Wetlands - Unrestricted with native plants	No
Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No
Question 10. Oak Openings	No
Question 11. Relict Wet Prairies	No

ORAM Summary Worksheet for Quantitative Rating

Metric	Score
Metric 1. Size	2.0
Metric 2. Buffers and surrounding land use	1.0
Metric 3. Hydrology	12.0
Metric 4. Habitat	7.0
Metric 5. Special Wetland Communities	0.0
Metric 6. Plant communities, interspersed, microtopography	-4.0
TOTAL SCORE	18.0
Category based on score breakpoints	1

Quantitative Rating Total Quantitative Rating Scoring Breakpoints

Category	ORAM Score
1	0 - 29.9
1 or 2 gray zone	30 - 34.9
2	35 - 59.9
2 or 3 gray zone	60 - 64.9
3	65 - 100

Wetland Categorization Worksheet

Choices	Answer and Result	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	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	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	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 wetland?	YES - Wetland is assigned to the appropriate category based on the scoring range	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.

Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	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?	NO - Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.
FINAL SCORE: <u>18.0</u> CATEGORY: <u>1</u>		

Instructions:

The investigator is **STRONGLY URGED** to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland may be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is **VERY IMPORTANT** to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To properly answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries." Refer to the most

ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: https://epa.ohio.gov/static/Portals/35/401/oram50sc_s.pdf

Background Information	
Rater Name: Philip Renner	Affiliation Name: WSP USA
Address: 312 Elm Street, Suite 2500, Cincinnati, OH 45202	Rater Phone: (937) 570-7691
Rater Email Address: philip.renner@wsp.com	
Wetland Information	
Name of Wetland: Wetland 3b	
Vegetation Communit(ies): PEM	
HGM Class(es): ☐ Bog ☐ Fringing ☐ Riverine ☐ Coastal ☐ Impoundment ☐ Slope ☒ Depression ☐ Mitigation ☐ Upland	
Wetland location description: Wetland 3b is a small patch of emergent wetland disconnected from Wetland 3a and Pond 1.	
Upload Wetland location Map File(s): CMH-232 Wetland 3.pdf	
Latitude: 40.265923	Longitude: -84.193359
USGS Quad Name:	
County(ies):	Township(s):
Shelby	Clinton
Hydrologic Unit Code (HUC8): 05120103 Mississinewa	
Date of Site Visit: 07/08/2024	
Attached Maps ☒ National Wetland Inventory Map ☐ Ohio Wetland Inventory Map ☒ Soil Survey ☒ Delineation Report/Map	
Wetland Size: 0.01	
Upload Sketch File(s): include north arrow, relationship with other surface waters, vegetation zones, etc. CMH-232 Wetland 3(1).pdf	

Comments, Narrative Discussion, Justification of Category Changes.**FINAL SCORE: 23.0****CATEGORY: 1****Scoring Boundary Worksheet****Instructions:**

The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. Areas with a high degree of hydrologic interaction should be scored as a single wetland. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

Steps in properly establishing scoring boundaries

Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	Y
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	Y
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	Y
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	Y
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	NA
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	NA

Narrative Rating Field Form**Instructions:**

Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

Steps in properly establishing scoring boundaries		
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "Critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	No
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	No
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	No
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	No
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i>, <i>Lythrum salicaria</i>, or <i>Phragmites australis</i>, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	No
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum spp.</i>, 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	No
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	No
8a	Old Growth Forest. Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	No
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	No
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	No
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	No
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	No

9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	No
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	No
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	No
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	No

Quantitative Rating

Metric 1. Wetland Area Size. (The maximum score is 6)

Score for Metric 1: 1.0

Subtotal Score for Metric 1: 1.0

Select one size and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4) (3 pts)
- ☐ 0.3 to <3 acres (0.12 to <1.2ha) (2 pts)
- ☒ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☐ <0.1 acres (<0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use. (The maximum score is 14)

Score for Metric 2: 1.0

Subtotal Score for Metric 1 and 2: 2.0

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☐ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, svannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology. (The maximum score is 30)

Score for Metric 3: 12.0

Subtotal Score for Metric 1 - Metric 3: 14.0

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☒ Seasonal/Intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- ☐ 100 year floodplain (1)
- ☒ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☐ Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7m (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or double check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☐ Seasonally inundated (2)
- ☒ Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12)
- ☒ Recovered (7)
- ☒ Recovering (3)
- ☐ Recent or no recovery (1)

Check all disturbances observed.

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

Other Describe:

Metric 4. Habitat Alteration and Development. (The maximum score is 20)

Score for Metric 4: 7.0

Subtotal Score for Metric 1 - Metric 4: 21.0

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)

- ☐ Recovered (3)
- ☒ Recovering (2)
- ☐ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☐ Fair (3)
- ☒ Poor to Fair (2)
- ☐ Poor (1)

4c. Habitat alteration. Score one or double check and average.

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

Check all disturbances observed.

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

Other Describe:

Metric 5. Special Wetlands. (The maximum score is 10)

Score for Metric 5: 0.0

Subtotal Score for Metric 1 - Metric 5: 21.0

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)

- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersions, microtopography. (The maximum score is 20)

Score for Metric 6: 2.0

Subtotal Score for Metric 1 - Metric 6: 23.0

6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.

Aquatic bed - Scale: 0

Emergent - Scale: 1

Shrub - Scale: 0

Forest - Scale: 0

Mudflats - Scale: 0

Open Water - Scale: 0

Other - Scale: 0

Other Describe:

6b. Horizontal (plan view) Interspersion. Select only one.

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

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage.

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

6d. Microtopography. Score all present using 0 to 3 scale.

Vegetated hummocks/tussocks - Scale: 0

Coarse woody debris >15cm (6in) - Scale: 0

Standing dead >25cm (10in) dbh - Scale: 0

Amphibian breeding pools - Scale: 0

ORAM Summary Worksheet for Narrative Rating

Question	Answer and Result
Question 1. Critical Habitat	No
Question 2. Threatened or Endangered Species	No
Question 3. High Quality Natural Wetland	No
Question 4. Significant bird habitat	No
Question 5. Category 1 Wetlands	No
Question 6. Bogs	No

Question 7. Fens	No
Question 8a. Old Growth Forest	No
Question 8b. Mature Forested Wetland	No
Question 9b. Lake Erie Wetlands - Restricted	No
Question 9d. Lake Erie Wetlands - Unrestricted with native plants	No
Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No
Question 10. Oak Openings	No
Question 11. Relict Wet Prairies	No

ORAM Summary Worksheet for Quantitative Rating

Metric	Score
Metric 1. Size	1.0
Metric 2. Buffers and surrounding land use	1.0
Metric 3. Hydrology	12.0
Metric 4. Habitat	7.0
Metric 5. Special Wetland Communities	0.0
Metric 6. Plant communities, interspersions, microtopography	2.0
TOTAL SCORE	23.0
Category based on score breakpoints	1

Quantitative Rating Total Quantitative Rating Scoring Breakpoints

Category	ORAM Score
1	0 - 29.9
1 or 2 gray zone	30 - 34.9
2	35 - 59.9
2 or 3 gray zone	60 - 64.9
3	65 - 100

Wetland Categorization Worksheet

Choices	Answer and Result	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	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	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	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 wetland?	YES - Wetland is assigned to the appropriate category based on the scoring range	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.

Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	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?	NO - Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.
FINAL SCORE: <u>23.0</u> CATEGORY: <u>1</u>		