Background Information

Name: /	
Agron Kwolek	9
Date: Z019 1Z [
Affiliation:	
Stantec	
Address: 11687 Lebanon Rd Cincinnati, OH 45241	
Phone Number: 513 847 8200	
e-mail address:	
Name of Wetland: NUTland 2	
Variation Communities):	
YEM	
HGM Class(es): Denressional	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	A
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Lat/Long or UTM Coordinate	
USGS Quad Name Newerk	
County Licking Township	
Section and Subsection	
1212W, QNE	
Hydrologic Unit Code 05040060205	
Site Visit ZCIGIZI	100
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey Pg-Pits, gravel	
Delineation report/map	
See Ecological Resources Inventory Report	

lame of Wetland:	tland 2	
Vetland Size (acres, hectares): $$.23 acres	
ketch: Include north arrow, relation	onship with other surface waters, vegetation zones, etc.	1
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omments, Narrative Discussion, J	ustification of Category Changes:	
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inal score : (5	Category:	

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

wetland 2

Narrative Rating

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

#	Question	Circle one	/
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
Z	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	(NO) Go to Question 8b

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	NO Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	NO
06	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
9e	Dogs the wellend have a reader-in-read form with a distribution	Go to Question 10	NO
36	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	Go to Question 10 YES	NO)
	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.	Wetland is a Category Sawetland. Go to Question 11	
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegans var. glaucus Cacatia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamagrostis stricta Carex atherodes Carex buxbaumin Carex pellita Carex sartwelli Gentiana andrewsis Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

End of Narrative Rating. Begin Quantitative Rating on next page.

Spourse (-20 Zha) (6 pts) 25 to <50 acres (10 1 to <20 Zha) (5 pts) 10 to <23 acres (4 to <10.1 ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.04 to <0.12ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (2pts) 0.1 to <0.1 acres (0.04 to <0.12ha) (2pts) 0.1	Site: We	fland 2		Rater(s):	ATK	1	Date: 2019 1217
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0,3 to < 3 acres (0.12 to <1.2 ha) (2pts)							
Metric 2. Upland buffers and surrounding land use. 2. Calculate average buffer width. Select only one and assign score. Do not double check "VIDE. Buffers average 50m (164ff) or more account welland permeter (7) which is average 50m (164ff) or more account welland permeter (8) which is average 50m (164ff) or more account welland permeter (9) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account welland permeter (1) which is average 50m (164ff) or more account wellan		31	to <10 acres (1.2 to <4ha	a) (3 pts)			
Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) WERY MARROW. Buffers average 10m to <50m (22 to <164ft) around wetland perimeter (4) MARROW. Buffers average 10m to <50m (23 to <50m) around wetland perimeter (7) VERY MARROW. Buffers average 10m to <50m (23 to <50m) around wetland perimeter (7) VERY MARROW. Buffers average 10m to <50m (23 to <50m) around wetland perimeter (7) VERY MARROW. Buffers average 10m to <50m (23 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 10m to <50m (23 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 10m to <50m (23 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 10m to <50m (23 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (1) VERY MARROW. Buffers average 20m to <50m (20 to <50m) around wetland perimeter (2) Wetlet 3. Hydrologic regime 20 to <50m (20 to <50m) around wetland perimeter (2) Seasonal/Intermitter surface water (3) Seasonal/							
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MARROW. Buffers average of 10m to <25m (32ft to <82ft) around wetland perimeter (1) Notes Narrow Suffers average of 10m (32ft to <42ft) around wetland perimeter (0)	0.45	□ w	IDE. Buffers average 50	m (164ft) or mor	e around wetland pe	erimeter (7)	
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Site:	11)	Hand 2	Rater	(s): AJ	<	Date: 20191217
	13					
51	ubtotal first p	age .				
0	13	Metric 5. Spe	ecial Wetlan	nds.		
max 10 pts.	subtotal	Check all that apply and s	score as indicated.			
		Bog (10) Fen (10)				
		Old growth fore	est (10)			
		Mature forested				
			tal/tributary wetland-ı	•		
			tal/tributary wetland-r d Prairies (Oak Oper		logy (5)	
		Relict Wet Prair	, ,	iligs) (10)		
			, ,	eatened or end	angered species (10)	
			ratory songbird/water			
			tland. See Question			
7	15	Metric 6. Plan	nt commun	ities, int	erspersion, micro	topography.
	10			V		
max 20 pts.	subtotal	6a. Wetland Vegetation (Community Cover Scale	0474 cores) continuous area
		Score all present using 0 Aquatic bed	to 3 scale.	0	Absent or comprises <0.1ha (0. Present and either comprises s	
		© Emergent			vegetation and is of moderate	
		Shrub			significant part but is of low qu	uality
		Forest		2	Present and either comprises s	
		Mudflats			vegetation and is of moderate part and is of high quality	quality or comprises a small
		Open water Other		3	Present and comprises significa	ant part, or more, of wetland's
		6b. horizontal (plan view)	Interspersion.		vegetation and is of high qual	
		Select only one.				
		High (5)			escription of Vegetation Quality	
		Moderately high	n(4)	low	Low spp diversity and/or predor disturbance tolerant native sp	
		Moderate (3) Moderately low	(2)	mod	Native spp are dominant compo	
		Low (1)	(-)	11,000	although nonnative and/or dis	
		None (0)			can also be present, and spec	•
		6c. Coverage of invasive			moderately high, but generally	
		to Table 1 ORAM long for or deduct points for cover		high	threatened or endangered sp A predominance of native speci	
		Extensive >75%	-	nign	and/or disturbance tolerant na	
		Moderate 25-75	` '		absent, and high spp diversity	
		Sparse 5-25% o		-	the presence of rare, threaten	ed, or endangered spp
		Nearly absent <	<5% cover (0)	Mudflet	Onen Mater Class Quality	
		Absent (1) 6d. Microtopography.		0	Absent <0.1ha (0.247 acres)	
		Score all present using 0	to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	acres)
			mucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8	88 acres)
			debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
		Standing dead	>25cm (10in) dbh	Microtonos	raphy Cover Scale	
		Amphibian bree	ruing pools	0	Absent	
				1	Present very small amounts or i	f more common
					of marginal quality	
				2	Present in moderate amounts, t quality or in small amounts of	highest quality
				3	Present in moderate or greater	amounts

End of Quantitative Rating. Complete Categorization Worksheets.

Wetland 2

ORAM Summary Worksheet

		circle answer or	
		insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
Ů	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	8	
	Metric 4. Habitat	3	Alexander of the second
	Metric 5. Special Wetland Communities	0	(United States
	Metric 6. Plant communities, interspersion, microtopography	2	TO THE STATE OF
	TOTAL SCORE	15	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, 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	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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, loca 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.

Choose one Category 1 Category 2 Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Version 5.0 Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet

Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for 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 recent 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: http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx

Background Information

Name: Aurey Kwolek
Date: 7 0/9 17/7
Affiliation:
Stantec Address:
11687 Lebanon Rd Cincinnati, 64 45241
Phone Number: 513 842 8200
e-mail address: Agron. Kwolek @ Stantec. com
Name of Wetland: Wetland 3
Vagatation Communities):
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Vallage Co
20
3
2
3
of the state of th
2004
X 1~200 \$ 6
AT THE RESIDENCE OF THE PARTY O
Lat/Long or UTM Coordinate 40.104184°N, -82,443350°W
USGS Quad Name
County Licking Township Talking
ILN, Newark
Section and Subsection QNW, RIZW
Hydrologic Unit Code 050 4000 60 20 5
Site Visit 12/12/2019
National Wetland Inventory Map PEM/PFO/PSS
Ohio Wetland Inventory Map
Soil Survey
Delineation report/map Sce Ecological Resources Inventory Report
Dee Kological resources Inventory Report

Name of Wetland: Wetlar	d 3	
	with other surface waters, vegetation zones, etc.	
Sketch: Include north arrow, relationship	with other surface waters, vegetation zones, etc.	1 .10
gream	Hay Freld	NA
4		
	PEC ,	
	PFC	
		arear
	6EW	Survey
Ayfield		
Comments, Narrative Discussion, Justific	cation of Category Changes:	
Final score:	Category:	Mod Z

Wetland 3

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	()
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
1	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Ge to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
3	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
la	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8t

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	NO Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	NO)
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	/ NO/
	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.	Wetland is a Category of 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	•	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
.,	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:	Wetland 3	Rater(s): ATK	Date: Z/ 2//1
7 3	Metric 1. Wetl	and Area (size).	
max 6 pts. subto	>50 acres (>20.3		
	10 to <25 acres 3 to <10 acres (0.3 to <3 acres	(4 to <10.1ha) (4 pts) 1.2 to <4ha) (3 pts) (0.12 to <1.2ha) (2pts) s (0.04 to <0.12ha) (1 pt)	
4 -		and buffers and surroundir	ng land use.
max 14 pts. subto	WIDE, Buffers : MEDIUM, Buffe NARROW, Buffe VERY NARROV 2b. Intensity of surrounding	fer width. Select only one and assign score. Do average 50m (164ft) or more around wetland periors average 25m to <50m (82 to <164ft) around were severage 10m to <25m (32ft to <82ft) around V. Buffers average <10m (<32ft) around wetland ig land use. Select one or double check and aveild growth or older forest, prairie, savannah, wildlif	imeter (7) vetland perimeter (4) wetland perimeter (1) perimeter (0) erage.
	LOW. Old field MODERATELY	(>10 years), shrub land, young second growth for HIGH. Residential, fenced pasture, park, conser	rest. (5) rvation tillage, new fallow field. (3)
17.5 24	Metric 3. Hyd	ndustrial, open pasture, row cropping, mining, colrology.	nstruction. (1)
max 30 pts. subto	otal 3a. Sources of Water. So High pH ground Other groundwa	water (5)	Connectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1)
	Precipitation (1) Seasonal/Intern	nittent surface water (3)	Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)
		n. Select only one and assign score.	Duration inundation/saturation. Score one or dbl check. Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3)
	0.4 to 0.7m (15.7in)	7 to 27.6in) (2)	Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
	None or none a Recovered (7)	pparent (12) Check all disturbances observed ditch	point source (nonstormwater)
	Recovering (3) Recent or no re	covery (1) tile dike weir stomwater input	road bed/RR track dredging other
		itat Alteration and Develo	
max 20 pts. subt	The second secon	e. Score one or double check and average. pparent (4)	
	Recent or no re	covery (1) Select only one and assign score.	
	Good (5) Moderately goo Fair (3) Poor to fair (2)	d (4)	
		core one or double check and average.	
0	None or none at Recovered (6) Recovering (3) Recent or no re	mowing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming
	this page	toxic pollutants	nutrient enrichment

Site:	Wetland3 Rat	ter(s): AJ	<	Date: (2/12//1
subtotal 0 3	first page Metric 5. Special Wetle	ands.		
max 10 pts. sub	Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlan Lake Erie coastal/tributary wetlan Lake Plain Sand Prairies (Oak Common Relict Wet Prairies (10) Known occurrence state/federal Significant migratory songbird/wetland. See Quest	nd-unrestricted hy nd-restricted hydro penings) (10) threatened or end ater fowl habitat o tion 1 Qualitative f	ology (5) langered species (10) r usage (10) Rating (-10)	oto no gran hv
	Metric 6. Plant communities.		Community Cover Scale	otopograpny.
mex 20 pm. suo	6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.	Vegetation		(0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises	
	L Emergent		vegetation and is of modera	
	1 Shrub		significant part but is of low	
	7 Forest	2	Present and either comprises	
	Mudflats			ate quality or comprises a small
	Open water		part and is of high quality	
	Other	3		icant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high qu	
	Select only one.	-	Tagana and to a man do	
	High (5)	Narrative I	Description of Vegetation Quali	tv
	Moderately high(4)	low	Low spp diversity and/or pred	
	Moderate (3)	1011	disturbance tolerant native :	
	Moderately low (2)	mod	Native spp are dominant com	
	Low (1)	muu		disturbance tolerant native spp
	None (0)		can also be present, and sp	* *
			moderately high, but genera	-
	 Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add 		threatened or endangered s	
	•	high	A predominance of native spe	··
	or deduct points for coverage Extensive >75% cover (-5)	ingii	1	native spp absent or virtually
			1	ity and often, but not always,
	Moderate 25-75% cover (-3)			
nalaris	Sparse 5-25% cover (-1)		the presence of rare, threate	elled, of endangered spp
7) 11 1	Nearly absent <5% cover (0)	Mudfleten	d Open Water Class Quality	
	Absent (1)		Open Water Class Quality	
	6d. Microtopography	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4	
	Score all present using 0 to 3 scale.			
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to	
	Z Coarse woody debris >15cm (6ir		High 4ha (9.88 acres) or more	
	Standing dead >25cm (10in) dbh		and he Cause Santa	
	Amphibian breeding pools		graphy Cover Scale	
		0	Absent	
		1	Present very small amounts of	r if more common
			of marginal quality	the second second
		2	Present in moderate amounts	
		_	quality or in small amounts	
		3	Present in moderate or greate	er amounts
			and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES WO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES W	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	17.5	
	Metric 4. Habitat	9,5	
	Metric 5. Special Wetland Communities	0	about the least
	Metric 6. Plant communities, interspersion, microtopography	8	Man Library
	TOTAL SCORE	42	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland 3

Wetland Categorization Worksheet

Choices	Circle one	_	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score <i>greater</i> 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	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	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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.

Choose one	Category 1	/Category 2	Category 3
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End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Aaron Kwolek	
Date: 1 8 2020	
Affiliation: Stantec	
Address: 11087 Lebanon Rd. Cincinnati, OH 45241	
Phone Number: 5/3-842-9200	
e-mail address: aaron. Kwolek@ Stantec.com	
Name of Wetland: Wetland 4	
Vegetation Communit(ies):	
HGM Class(es): depressional/riverine	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
	1
	N
charman Rd 12300'	
charman	
Muetland	
Project Area	
Lat/Long or UTM Coordinate 40. 154143°N - 82. 478605°W	
USGS Quad Name	
County	
Township	
Section and Subsection	
Hydrologic Unit Code 050400000202	
Site Visit 1/8/2020	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey Amanda silt loam Shoals silt loam	
Delineation report/map	
See Ecological Resources Inventory Report	

Name of Wetland:	
Notional Size (across hortares)	
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
1 Swram	
Intermittent Stream	
11.4	
1 \	/
Westand	
1 Intland	
/ We.	
1 11 4	
	1
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- \ \	,
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N T	>
1	
Row	
POU	
Comments, Narrative Discussion, Justification of Category Changes:	
Final score: 23.5 Category:	

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
	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?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	1
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	YES	(NO)
AL.	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

nvasive/exotic spp	p fen species	bog species	0ak Opening species	wet prairie species
tythrum salicaria fyriophyllum spicatum fajas minor halaris arundinacea chragmites australis totamogeton crispus fanunculus ficaria chamnus frangula fypha angustifolia fypha xglauca	Zygadenus elegans var. glaucus um Cacalia plantaginea Carex flava Carex sterilis Carex stricta	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi. Calamagrostis canadensi. Carex atherode. Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi Helianthus grosseserratu. Liatris spicata Lysimachia quadriflora Lythrum alatun Pycnanthemum virginianun Silphium terebinthinaceun Sorghastrum nutan. Spartina pectinate Solidago riddelli

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:		W	etla	ind	4		Rat	er(s):	Aaron	Kw	ole.	k	Date: \	8	2020
3	3	M	etric	1.	Wet	and A	Area	(size	e).						
max 6 pts.	subtotal	Sele	2 1 3 0	50 ac 5 to < 0 to < 1 to <1 3 to <	res (>20. 50 acres 25 acres 0 acres (3 acres 0.3 acre	assign sco 2ha) (6 pts (10.1 to < (4 to <10. 1.2 to <4h (0.12 to <1 s (0.04 to	s) 20.2ha) 1ha) (4 a) (3 pt 1.2ha) (3	pts) s) 2pts)							
3	6	M	etric	2.	Upla	ınd bu	uffer	s and	d surro	ound	ing	land use.			
max 14 pts.	subtotal		Intensit	VIDE. MEDIU MERRO VERY ty of si VERY I OW. MODEI	Buffers a M. Buffe DW. Buff NARROV urroundir LOW. 2n Old field RATELY	average 50 ers average fers average V. Buffers ng land use d growth 0 (>10 years HIGH. Re	om (164 e 25m t ge 10m averag e. Sele or older s), shrul esidenti	4ft) or mo o <50m (to <25m ge <10m (ect one of forest, pro- b land, you	re around w 82 to <164ft (32ft to <82 (<32ft) arour r double che rairie, savan bung second	etland per around off) around d wetland ck and a nah, wild growth	erimete wetlar nd wetl nd peri verage dlife an forest. ervatio	nd perimeter (4) and perimeter (1) meter (0) a. ea, etc. (7) (5) on tillage, new fall			
11	17	M	etric	3.	Hyd	rology	y.								
max 30 pts	subtotal 4	3c.	Maximu > Modific	ligh phother general season verennum wa 0.7 (2.4 to 0.0.4m (ations one of ecoverence o	H ground groundwa (ation (1)) nal/Intermial surfact (ter depth (7.6in) (3) (.7m (15.7in) (<15.7in) (to natural r none apered (7) (ering (3)	ter (3) ittent surface water (lace Select of the 27.6in (1)	ace wat ake or s only one n) (2)	ter (3) ttream) (5 e and ass me. Scor eck all dis ditch tile dike		3d.	Durat	point source (nor filling/grading road bed/RR trad	ain (1) //ake and other //ake	est), c or (1) one o l/satur (3)	omplex (1) or dbl check. rated (4)
6.5 ma x 20 is.	23.5		Substra	ate dis lone o lecove	turbance r none ap red (3)		ne or do	ition	and De		pm	dredging otherent.			
			R	ecent		covery (1)									
	\		E V G G M F P P	excelle lery go lood (f lodera air (3) loor to	nt (7) bod (6) 5) itely good fair (2)	. ,			n score.						
L	23.5	Jage .	F	ecove	ered (6) ering (3)	oparent (9)	Che	mowing grazing clearcu selectiv woody	ĺ		V	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed remova	al	

last revised 1 February 2001 jjm

		n Quantitative F	taung	-				11
Site:	Wet	and 4		Rater(s	s): Aar	on Kwolek	Date: 1	8 20
	23.5		7					
0		Metric 5.	. Special	Wetland	ds.			
max 10 pts	, subtotal (Bog (Fen (Old gi Matur Lake Lake		d (5) ary wetland-un ary wetland-re: es (Oak Openir	stricted hydro			
		Signif Categ	ficant migratory so gory 1 Wetland. S	ongbird/water fo See Question 1	owl habitat or Qualitative R	ating (-10)	otopograr	hu
0	23.5					erspersion, micr	otopograp	лıy.
max 20 pts	The state of the s		egetation Commur at using 0 to 3 sca		Vegetation	Community Cover Scale Absent or comprises < 0.1ha	(0.2471 acros) co	ntinunus aros
			tic bed gent	ne.	1	Present and either comprise vegetation and is of model significant part but is of lov	es small part of wetler rate quality, or com	land's
		Fores Mudfl Open			2	Present and either comprise vegetation and is of model part and is of high quality	rate quality or comp	prises a smal
		Other b. horizontal (Select only one	plan view) Intersp	persion.	3	Present and comprises sign vegetation and is of high q		e, of wetland
		High			Narrative D	escription of Vegetation Qua	ility	
			erately high(4) erate (3)		low	Low spp diversity and/or pre disturbance tolerant native		native or
		Low (None	. ,		mod	Native spp are dominant cor although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered	disturbance tolera species diversity m rally w/o presence	nt native spp oderate to
		or deduct points Exter	_	(-5) er (-3)	high	A predominance of native sp and/or disturbance toleran absent, and high spp dive the presence of rare, threa	pecies, with nonnat it native spp absen rsity and often, but	t or virtually not always,
		Abse	ly absent <5% cov nt (1)	ver (0)		Open Water Class Quality	-	
		Sd. Microtopog Score all preser	rapny. nt using 0 to 3 sca	ale.	1	Absent <0.1ha (0.247 acres Low 0.1 to <1ha (0.247 to 2		
	`		tated hummucks/		2	Moderate 1 to <4ha (2.47 to		
		Coars	se woody debris > ding dead >25cm	>15cm (6in)	3	High 4ha (9.88 acres) or mo		
			hibian breeding po		Microtopog	raphy Cover Scale		
					0	Absent		
					1	Present very small amounts of marginal quality		
					2	Present in moderate amount quality or in small amount	s of highest quality	
	7				3	Present in moderate or great and of highest quality	iter amounts	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
9	Metric 2. Buffers and surrounding land use	3	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	6.5	
	Metric 5. Special Wetland Communities	0	State of the
	Metric 6. Plant communities, interspersion, microtopography	0	
	TOTAL SCORE	23.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as aCategory 1 wetland	NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, 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	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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, loca 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 o information for this determination should be provided.

	Fin	al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Version 5.0 Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet

Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for 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 recent 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: http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx

Background Information

Name: Agron Kwolek	
Date: Z019 12 3	
Affiliation:	
Stantec Address:	
11687 Lebanon Rd Cincinnati, OH 45241	
Phone Number: 5/3 847 8200	
e-mail address: Agran Kwolek@ Gtantec. com	
Name of Wetland: Wetland 5	
Vegetation Communit(ies):	
HGM Class(es):	
>10/16	
Location of Wetland: include map, address, north arrow landmarks, distances, roads, etc.	A
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Marian Ray Drive way	
1 KIRCUSE	
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- First and Englishment of the Section And Section Sec	STATE OF STATE
Lat/Long or UTM Coordinate 40, 171899°N, -82, 489248	
County 1	
Lie King	
1/2/	
Section and Subsection RI3 W Q NE	
Hydrologic Unit Code 050 4000 6020 Z	
Site Visit 2019 17 13	
National Welland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey	
Am D7- Amanda silt Loam, 12-18 % slapes, erocled Delineation report/map See Ecological Resources Inventory Report	-
See Ecological Resources Inventory Report	

Name of Wetland: Wetland 5		
Wetland Size (acres, hectares): 20, 190		
Sketch: Include north arrow, relationship with other surface water	ers, vegetation zones, etc.	A
A-	-4/	
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Creative Company of the Company of t	1	
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	of said	
	5/10	
	1 810	
	18	
	0	
Heren		
W.		
Comments, Narrative Discussion, Justification of Category Chan	ges:	
	-	
Final score: 21	Category:	1

Wetland 5

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category (3 wetland Go to Question 8a	NO Go to Question 8a
За	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

01	Tw	1 1/10	Luc
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	NO Go to Question 9a
		Go to Question 9a	
9a	Lake Erle coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO NO
	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?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
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	YES Go to Question 9d	NO Go to Question 10
	include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.		
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
	W	Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO /
	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	Wetland is a Category 3 wetland.	Go to Question 11
	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	Go to Question 11	
11	type of wetland and its quality. Relict Wet Prairies. Is the wetland a relict wet prairie community	YES /	NO /
0.1	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,	Wetland should be evaluated for possible Category 3 status	Complete Quantitative Rating
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Invasive/exotic spp Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	fen species Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis	bog species Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Oak Opening species Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	wet prairie species Calamagrostis canadensis Calamagrostis stricta Carex atherodes Carex buxbaumii Carex pellita Carex sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii
	Tofieldia glutinosa Triglochin maritimum Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:	Wet	Hand 5	Rater(s): AJK	Date: 2019 1213
		Metric 1. Wet	and Area (size).	
O	0		(0.20)	
max 6 pts.	subtotal	Select one size class and		
		>50 acres (>20.	2ha) (6 pts) (10.1 to <20.2ha) (5 pts)	
		10 to <25 acres	(4 to <10.1ha) (4 pts)	
			1.2 to <4ha) (3 pts)	
			(0.12 to <1.2ha) (2pts) s (0.04 to <0.12ha) (1 pt)	
		<0.1 acres (0.04		
9	9	Metric 2. Upla	and buffers and surrounding	g land use.
max 14 pts.	subtotal		fer width. Select only one and assign score. Do no	
			average 50m (164ft) or more around wetland perime ers average 25m to <50m (82 to <164ft) around wet	
			fers average 10m to <25m (32ft to <82ft) around we	
			V. Buffers average <10m (<32ft) around wetland pe	
			ng land use. Select one or double check and avera ad growth or older forest, prairie, savannah, wildlife	
		LOW. Old field	(>10 years), shrub land, young second growth fores	st. (5)
			HIGH. Residential, fenced pasture, park, conservandustrial, open pasture, row cropping, mining, const	
	1			ituction. (1)
	120	Metric 3. Hyd	lology.	
max 30 pts	10	3a. Sources of Water. So	core all that apply 3h Co.	nnectivity. Score all that apply.
	- Carrieran	High pH ground		100 year floodplain (1)
		Other groundwa		Between stream/lake and other human use (1)
		Precipitation (1)	nittent surface water (3)	Part of wetland/upland (e.g. forest), complex (1 Part of riparian or upland corridor (1)
		Perennial surfa	ce water (lake or stream) (5) 3d. Du	ration inundation/saturation. Score one or dbl ched
			n. Select only one and assign score.	Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3 0.4 to 0.7m (15		Regularly inundated/saturated (3) Seasonally inundated (2)
		<0.4m (<15.7in	(1)	Seasonally saturated in upper 30cm (12in) (1)
			al hydrologic regime. Score one or double check a	ind average.
		None or none a Recovered (7)	pparent (12) Check all disturbances observed ditch	point source (nonstormwater)
		Recovering (3)	tile	filling/grading
		Recent or no re		road bed/RR track
			weir stomwater input	dredging other Co.++/e
		J		
2	23	Metric 4. Hat	itat Alteration and Develop	ment.
max 20 pts	s subtotal	4 - Contratante distribustos	Corre and an devible about and average	
max 20 pts	S. SUDIOLEI	None or none a	e. Score one or double check and average.	
		Recovered (3)		
		Recovering (2)	coven(/1)	
			Select only one and assign score.	
		Excellent (7)	,	
		Very good (6) Good (5)		
		Moderately god	d (4)	
		Fair (3)		
		Poor to fair (2) Poor (1)		
			core one or double check and average.	
		None or none	pparent (9) Check all disturbances observed	
		Recovered (6)	mowing	shrub/sapling removal
		Recovering (3)	ecovery (1) grazing clearcutting	herbaceous/aquatic bed removal sedimentation
	1	T Trecent of no n	selective cutting	dredging
	23		woody debris removal	faming
	subtotal this	page	toxic pollutants	nutrient enrichment
last revis		ary 2001 jim	I.	

Site:	We	Han	15	Rate	r(s): At	Έ.	Date: 2019 12 1
	23 otal first pag		io F. Sno	oial Watlar	ado.		
0 -	23	Men	ic a. ape	ecial Wetlar	ius.		
		Check a	Bog (10) Fen (10) Old growth fore Mature forested Lake Erie coas Lake Erie coas Lake Plain San Relict Wet Prai Known occurre Significant migr	d wetland (5) tal/tributary wetland- tal/tributary wetland- d Prairies (Oak Oper ries (10) nce state/federal thre ratory songbird/water	restricted hy nings) (10) eatened or e r fowl habitat	ndangered species (10) or usage (10)	
	_		4	tland. See Question			
-2							microtopography.
max 20 pts.			and Vegetation (on Community Cover Sca	
		Score all	present using 0 Aquatic bed Emergent Shrub	to 3 scale.	0	Present and either co	<0.1ha (0.2471 acres) contiguous area omprises small part of wetland's f moderate quality, or comprises a is of low quality.
			Forest Mudflats Open water		2	Present and either co	omprises significant part of wetland's f moderate quality or comprises a small
			Other contal (plan view)	Interspersion.	3	Present and comprise vegetation and is or	es significant part, or more, of wetland's f high quality
	`	Select or	High (5)		Narrative	Description of Vegetation	on Quality
		E	Moderately high Moderate (3)		low	Low spp diversity and disturbance toleran	d/or predominance of nonnative or t native species
			Moderately low Low (1) None (0) trage of invasive 1 ORAM long for	plants. Refer	mod	although nonnative can also be present	ant component of the vegetation, and/or disturbance tolerant native spp t, and species diversity moderate to at generally w/o presence of rare ngered spp
	C	or deduct	Extensive >75% Moderate 25-75 Sparse 5-25% of	5 cover (-5) 5% cover (-3) cover (-1)	high	and/or disturbance absent, and high sp	ative species, with nonnative spp tolerant native spp absent or virtually op diversity and often, but not always, e, threatened, or endangered spp
		100	Nearly absent Absent (1)	ь% соver (0)	Mudflata	and Open Water Class Qu	ality
	6	d. Micro	otopography.		0	Absent <0.1ha (0.24)	
			present using 0 t	to 3 scale.	1	Low 0.1 to <1ha (0.24	
			Vegetated humi		2	Moderate 1 to <4ha (
				lebris >15cm (6in)	3	High 4ha (9.88 acres)	or more
			Standing dead >	25cm (10in) dbh	Microton	ography Cover Scale	
			Lampinolan biee	anig pools	О	Absent	
					1	Present very small an of marginal quality	nounts or if more common
					2		amounts, but not of highest mounts of highest quality
					3	Present in moderate of	

21

End of Quantitative Rating. Complete Categorization Worksheets.

Wetland 5

ORAM Summary Worksheet

		circle answer or insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES W	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
v	Metric 2. Buffers and surrounding land use	9	Walter Bridge
	Metric 3. Hydrology		
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	-2	Complete
	TOTAL SCORE	71	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland 5

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO-)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, 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	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?	undercategorized by this method. A written justification for recategorization	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, loca 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.

	/)Fin	al Category	
Choose one	/ Category 1/	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Kate Bomar	
Date: 12/30/2019	
Affiliation: Stantec Consulting Services Inc.	
Address: 11687 Lebanon Rd., Cincinnati, OH 45241	
Phone Number: (5/3)-842-8200	
e-mail address: Kate, bomar@stantec.com	
Name of Wetland: Wetland Le	
Vegetation Communit(ies):	
HGM Class(es):	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	/
* Sharp Rd, station	
Project ->/	
Johnstown Unica Rd.	
30"	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
North Newark Station	
Newark	
Lat/Long or UTM Coordinate 40, 203049°N ,-82, 497489°	W
USGS Quad Name	
County Licking County	
Township	
Section and Subsection	
Hydrologic Unit Code 0504000 60201	
Site Visit 12 / 30 / 2019	
National Wetland Inventory Map None	
Ohio Wetland Inventory Map	
Soil Survey Centerburg silt loam 6-12% sloves troded	Cen1C2
C. Oliver Cili (Court)	Como

Include north arrow, relationship with other surface waters, vegetation zenes, etc. Stream Stream Slope Slope Slope White arrative Discussion, Justification of Category Changes:	ame of Wetland: Wetland G	
Stream Stream Stope Slope What What Slope What Sl	etland Size (acres, hectares): $\sim 0.12 \alpha$	icres
Stream Manual Stope Stope Row Row Manual Stope Row Manual Stope	etch: Include north arrow, relationship with other su	rface waters, vegetation zones, etc.
Stream Manual Stope Stope Row Row Manual Stope Row Manual Stope		
Stream Manual Stope Stope Row Row Manual Stope Row Manual Stope	1	decidation
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Slope	1 CMS SWOOLS	14
mments, Narrative Discussion, Justification of Category Changes:)	iel.
Slope ROW mments, Narrative Discussion, Justification of Category Changes:	1000	
mments, Narrative Discussion, Justification of Category Changes:	10.	
mments, Narrative Discussion, Justification of Category Changes:		
mments, Narrative Discussion, Justification of Category Changes:		Stope
mments, Narrative Discussion, Justification of Category Changes:	1	W \\
mments, Narrative Discussion, Justification of Category Changes:		W / W/
mments, Narrative Discussion, Justification of Category Changes:	1 ~ N2	/V W/ S
mments, Narrative Discussion, Justification of Category Changes:	10.	- L V /
mments, Narrative Discussion, Justification of Category Changes:		(D) / W Y/
	PAN	- W V/
	mmonte Narrativo Discussion, Justification of Cato	more Changes
	mments, Narrative Discussion, Justification of Cate	gory Changes:
	nal score: 3	Category: lov 2 grass
- 1 1 744 4	al score : 3	Category: 10r 2 granz

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	
ı	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	YES Wetland should be evaluated for possible Category 3 status	Go to Question 2
	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).	Go to Question 2	A
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	~
3	Documented High Quality Wetland. Is the wetland on record in	YES	(NO)
	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	6
4	Significant Breeding or Concentration Area. Does the wetland	YES	(NO)
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland	Go to Question 5
		Go to Question 5	
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phelaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wotland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	NO)
	significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
	00701 01 111 date opening (000 1 date 1) to 2070.	Go to Question 7	7
Z	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland	Go to Question 8a
		Go to Question 8a	
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			Pan
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	NO Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	NO Constitut 10
9b	elevation, or along a tributary to Lake Erie that is accessible to fish? Does the wetland's hydrology result from measures designed to	Go to Question 9b YES	Go to Question 10
90	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?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	/NO)
	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 surface, and often with a dominance of the surface, and often with a dominance of the surface.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
	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.		
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	~ .	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicate
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianun
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan.
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		9
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:	Wetl	and	U		Rater(s):	KBMD			Date:	12/30	2019
	10	ПМе	tric 1. Wetl	and Aı	rea (size).					1
4	1				•	,-					
max 6 pts.	subtotal	Sele	one size class and a >50 acres (>20.2	2ha) (6 pts)							
		1	25 to <50 acres (
	2		3 to <10 acres (1 0.3 to <3 acres (1	.2 to <4ha)	(3 pts)						
			0.1 to < 0.3 acres	(0.04 to <0							
	1	TMe	<0.1 acres (0.04) tric 2. Upla		fers and	l surroi	ındine	a land use			
8	10	"	ti io zi. Opia	iia bai	ioio anc	Garrot	anding	j lullu usc.			
max 14 pts.	subtotal	2a.	alculate average buff WIDE. Buffers a								
	4		MEDIUM. Buffer	s average 2	25m to <50m (8	2 to <164ft) a	around wet	land perimeter (4)			
	,		VERY NARROW	. Buffers a	verage <10m (<	32ft) around	wetland pe				
		2b.	ntensity of surrounding VERY LOW. 2nd								
	4		LOW. Old field (>10 years),	shrub land, you	ing second g	rowth fores		ow field (3)		
	1	11	HIGH. Urban, in	dustrial, ope	en pasture, row	cropping, mir	ning, const	ruction (1)	ow neid. (3)		
10	20	Me	tric 3. Hydr	ology.							
max 30 pts	subtotal	3a. §	ources of Water. Sco	ore all that a	pply		3b. Cor	nectivity. Score all	that apply.		
	ıl.	1	High pH groundwated			T		100 year floodpla Between stream		er humar	n use (1)
	4		Precipitation (1) Seasonal/Intermi		o water (2)			Part of wetland/u	pland (e.g. f	orest), co	
		1	Perennial surface	e water (lake	e or stream) (5)		3d. Dur	Part of riparian o ation inundation/sat	uration. Sco	re one or	
	1	3c. [aximum water depth. >0.7 (27.6in) (3)			in score.		Semi- to perman Regularly inunda			ited (4)
		1	0.4 to 0.7m (15.7 <0.4m (<15.7in) (2)		-	Seasonally inund	٠,	r 30cm (1	(2in) (1)
		3e. i	odifications to natura	hydrologic				id average.			, (,
	3		None or none ap Recovered (7)	parent (12)	Check all dist	urbances obs	erved	point source (nor	nstormwater)		
	7	1	Recovering (3) Recent or no reco	overv (1)	tile dike			filling/grading road bed/RR trace	:k		
				, ,	weir	iter input		dredging	••		
] Ma	trio 1 Habi	tot Alt			·olopu				
q	29	INIE	tric 4. Habi	lal All	erauon a	and Dev	veropr	nent.			
max 20 pts.	subtotal	4a. 5	ubstrate disturbance. None or none ap		or double chec	k and averag	e.				
	,	2	Recovered (3)	parent (4)							
		t	Recovering (2) Recent or no reco	overy (1)							
		4b.]	abitat development. S Excellent (7)	Select only	one and assign	score.					
		F	Very good (6) Good (5)								
	1	+ 1	Moderately good	(4)							
			Fair (3) Poor to fair (2)								
		4c. F	Poor (1) abitat alteration. Sco	re one or do	uble check and	l average.					
			None or none app		Check all distu		erved	7-hh/	1		
	/	3	Recovered (6) Recovering (3)		mowing grazing			shrub/sapling ren herbaceous/aqua		val	
		7	Recent or no reco	overy (1)	clearcutt			sedimentation dredging			
	29					ebris removal		farming nutrient enrichme	int		
S	ubtotal this pa	age			toxic poi	idiani)	_		iit		

last revised 1 February 2001 jjm

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End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
9	Metric 2. Buffers and surrounding land use	00	
	Metric 3. Hydrology	10	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	31	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	~	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(NO)	If the score of the wetland is located within the scoring range for a particular category, 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?	Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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, loca 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.

Choose one	Category 1	Category 2	Category 3
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End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Kate Bomar
Date: 12/31/2019
Affiliation: Stantec Consulting Services Inc.
Address: 11687 Lebanon Rd., Cincinnati, OH 45241
Phone Number: (513)-842-8200
e-mail address: Kate, bomar@stantec.com
Name of Wetland: Wetland 7
Vegetation Communit(ies): PEM / PSS
HGM Class(es): depressional
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
* sharp Rd. station
Project →
Johnstown Utica Rd.
Johnstown
N N
North Newark Station
North Newark Station Newark
Newark
Lat/Long or UTM Coordinate 40, 213135°N, -82, 50102°W
Lat/Long or UTM Coordinate 40, 213135°N, -82, 50102°W USGS Quad Name Fredonia
Lat/Long or UTM Coordinate 40.213135°N, -82.50102°W USGS Quad Name Fredonia County Licking County
Lat/Long or UTM Coordinate 40, 213135°N, -82, 50102°W USGS Quad Name Fredonia
Lat/Long or UTM Coordinate 40.213135°N, -82.50102°W USGS Quad Name Fredonia County Licking County
Lat/Long or UTM Coordinate 40.213135°N, -82.50102°W USGS Quad Name Fredonia County Licking County Township
Lat/Long or UTM Coordinate 40.213135°N, -82.50102°W USGS Quad Name Fredonia County Licking County Section and Subsection
Lat/Long or UTM Coordinate 40. 213135°N, -82. 50102°W USGS Quad Name Fredonia County Licking County Township Section and Subsection Hydrologic Unit Code 0504000 60201
Lat/Long or UTM Coordinate 40.213135°N, -82.50102°W USGS Quad Name Fredomia County Lic/King County Township Section and Subsection Hydrologic Unit Code 050400060201 Site Visit 12/31/2019 National Wetland Inventory Map PEMIC Ohio Wetland Inventory Map
Lat/Long or UTM Coordinate 40.213135°N, -82.50102°W USGS Quad Name Fredomia County Licking County Township Section and Subsection Hydrologic Unit Code 0504000 40201 Site Visit 12/31/2019 National Wetland Inventory Map PEMIC

Name of Wetland: Wetland T Wetland Size (acres, hectares):	
	0.34ac
Sketch: Include north arrow, relationship with other surf	face waters, vegetation zones, etc.
	weld / x
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1	a Gold
Comments, Narrative Discussion, Justification of Catego	rory Changes:
	, ,
	3
Land the second	
Final score :24	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	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	×	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	×	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	×	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	×	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		×
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	×	

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	^
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the welland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the welland a carbon accumulating (peat, muck) welland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			P
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES YES	NO
	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?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status Go to Question 10	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	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	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	type of wetland and its quality. Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	INO
	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.).	Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Table 1 Characteristic plant species

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricte
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherode
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellit
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwell
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrews
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratu
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicai
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflor
	Parnassia glauca	Schechzeria palustris		Lythrum alatu
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianu
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceu
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nuta
	Salix candida	Vaccinium oxycoccos		Spartina pectina
	Salix myricoides	Woodwardia virginica		Solidago riddeli
	Salix serissima	Xyris difformis		5
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:	We	tland	7	Rater(s):	KB 1	MD	Date: [2 3]	2010
4		Metric	1. Wetl	and Area (size).			
	4							
max 6 pls	subtotal		size class and a					
			50 acres (>20.2) to <50 acres ((10,1 to <20.2ha) (5 pts)				
	4			(4 to <10.1ha) (4 pts)				
	7			.2 to <4ha) (3 pts)				
				0.12 to <1.2ha) (2pts) (0.04 to <0.12ha) (1 pt)				
			0.1 acres (0.04)					
		Metric	2. Upla	nd buffers and	surro	ounding	land use.	
4	8					3		
max 14 pts.	subtotal	2a. Calcula	ate average buff	er width. Select only one a	nd assign	score. Do not o	double check.	
		V	VIDE. Buffers a	verage 50m (164ft) or more	around w	etland perimete	er (7)	
	1			rs average 25m to <50m (8) ers average 10m to <25m (
				. Buffers average <10m (<				
		2b. Intensit	ty of surrounding	g land use. Select one or	double che	ck and average		
				growth or older forest, pra				
	3			>10 years), shrub land, you			(5) n tillage, new fallow field. (3)	
	_			dustrial, open pasture, row				
10	20		3. Hydr			-		
12	20		o,	0.097.				
max 30 pts.	subtotal	Ja. Source	s of Water. Sco	ore all that apply		3b. Conne	ectivity. Score all that apply	
			ligh pH groundw				100 year floodplain (1)	
	7.1		ther groundwate	er (3)			Between stream/lake and other human	
	4		recipitation (1)	ttent surface water (3)			Part of wetland/upland (e.g. forest), cor Part of riparian or upland corridor (1)	npiex (1
				water (lake or stream) (5)			on inundation/saturation. Score one or	dbl ched
				Select only one and assig	n score.		Semi- to permanently inundated/saturated	ted (4)
	- (0.7 (27.6in) (3) .4 to 0.7m (15.7	to 27 6in) (2)			Regularly inundated/saturated (3) Seasonally inundated (2)	
			0.4m (<15.7in) (Seasonally saturated in upper 30cm (12	2in) (1)
				hydrologic regime. Score	one or dou	ble check and	average.	, (. ,
		□ N	one or none app	parent (12) Check all distu	rbances ol	oserved		
	2		ecovered (7)	ditch			point source (nonstormwater)	
	_		ecovering (3) ecent or no reco	overy (1) tile			filling/grading road bed/RR track	
			00011101101000	weir			dredging	
				stormwa	ter input		other	
0	20	Metric	A Habit	tat Alteration a	nd Do	volonme	ont	
91	24	MELITO	T. Habi	iai Aiteration a	ilia De	veropini	GIIC.	
max 20 pts.	subtotal	4a Substra	te disturbance	Score one or double check	and avera	nce		
			one or none app		Cana avoic	igo.		
			ecovered (3)					
	2		ecovering (2) ecent or no reco	wor. (1)				
				Select only one and assign	score.			
		E	xcellent (7)	soloot only one and acong.				
			ery good (6)					
			ood (5) oderately good ((4)				
	4		air (3)	(7)				
	- 1	Po	oor to fair (2)					
			oor (1)		2.0			
				e one or double check and				
			one or none app ecovered (6)	parent (9) Check all distu	rpances ob		shrub/sapling removal	
		Re	ecovered (6) ecovering (3)	grazing			nerbaceous/aquatic bed removal	
-			ecent or no reco	overy (1) clearcutti			sedimentation	
- 1	19			selective			dredging	
	0			woody de toxic poll	bris remov		arming nutrient enrichment	
sub	itotal this pag	ge		TOXIC POIL	nrai iro		iditient etilicilinett	
st revised	1 Februar	y 2001 jjm		L				

		_	ative Rating	1 1 1 1 1 1 1		ID-1: :- 1-1-	N And
Site: \	Netlo	und 1	Ra	ater(s): KB	MD	Date: 12/31/2	01
sul	29 btotal first pa 29 subtotal	Metri	c 5. Special Wet				
5	24	Metri	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wet Lake Erie coastal/tributary wet Lake Plain Sand Prairies (Oak Relict Wet Prairies (10) Known occurrence state/feder Significant migratory songbird/ Category 1 Wetland. See Que	land-restricted hydro Openings) (10) al threatened or end water fowl habitat or estion 1 Qualitative F	angered species (10) usage (10) Rating (-10)	icrotopography.	
max 20 pts.	subtotal	6a Wetle	and Vegetation Communities.	Vegetation	Community Cover Scale		
max to pio.	Suototal		present using 0 to 3 scale.	0		0.1ha (0.2471 acres) contiguous are	ea
	2	Score and	Aquatic bed Emergent Shrub	1	Present and either com	nprises small part of wetland's moderate quality, or comprises a	Ca
			Forest Mudflats Open water	2	vegetation and is of r part and is of high qu		
			Other contal (plan view) Interspersion.	3	Present and comprises vegetation and is of h	s significant part, or more, of wetlan nigh quality	id's
		Select or		Manadian F	Name and Manageria	Quality	
		X	High (5) Moderately high(4) Moderate (3)	low	disturbance tolerant	or predominance of nonnative or native species	
	3	6c. Cove	Moderately low (2) Low (1) None (0) erage of invasive plants. Refer 1 ORAM long form for list. Ado	mod	although nonnative a can also be present,	nt component of the vegetation, and/or disturbance tolerant native sp and species diversity moderate to generally w/o presence of rare gered spp	рр
		or deduc	t points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	high	and/or disturbance to absent, and high spp	tive species, with nonnative spp plerant native spp absent or virtually p diversity and often, but not always h threatened, or endangered spp	
		-	Absent (1)	Mudflat an	d Open Water Class Qua	ality	
		6d Micr	otopography.	0	Absent <0.1ha (0.247		
			present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.24)		
		II	Vegetated hummucks/tussuc		Moderate 1 to <4ha (2		
		3 1	Coarse woody debris >15cm		High 4ha (9.88 acres)		
	,	7	Standing dead >25cm (10in) Amphibian breeding pools	dbh	graphy Cover Scale		
				0	Absent		
				1	of marginal quality	ounts or if more common	
				2		mounts, but not of highest nounts of highest quality	
2	1			3	Present in moderate o and of highest qualit		

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End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	4	
3	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	0	MORDINE
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	34	Category based on score breakpoints modified 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	2	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(NO)	If the score of the wetland is located within the scoring range for a particular category, 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?	Welland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO -Welland 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, loca 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.

	Fina	al Category \	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Kate Bomar
Date: 12/31/2019
Address: 11687 Lebanon Rd., Cincinnati, OH 45241
Phone Number: (513)-842-8200
e-mail address: Kate, bomara stantec. com
Name of Wetland: Wetland 8
Vegetation Communit(ies):
HGM Class(es):
Location of Wetland: include map, address, north arrow; tandmarks, distances, roads, etc. Mt. Verviors * sharp Rd. station North Newark Newark
Lat/Long or UTM Coordinate
USGS Quad Name Fredonia
County Licking
Township
Section and Subsection /
Hydrologic Unit Code 050400000201
Site Visit 12 /31 /2019
National Wetland Inventory Map
Ohio Wetland Inventory Map
Delineation report/map Ak, Algiers silt loam, frequently floaded
See Ecological Resources Inventory Report

Name of Wetland: Wetland Size (acres, hectares):	3 8			
Wetland Size (acres, hectares): Sketch: Include north arrow, relations	NO.23	acres		
Sketch: Include north arrow, relations	hip with other sur	face waters, vegetation zon	es, etc.	
				IZ.
		ticld"	1	
17	1	AS THE	./	
1		1 Shap		
		Ag Field"	ľ	
	-			
N				-
1		¥		
				W =
	V	W.		
Aq	F			9
13.4		y Wetland		V.
Field 1		¥		4
		4	1	
			4	
	loidfie	id		1.4
- cam	in (15)	- 60°	-0	
0)		Stream		
			-	1
	1		>	(
/	-ROW-		-	(
Comments, Narrative Discussion, Jus	stification of Cateo	gory Changes:		
				¥0.
Final score :			Category	. 1
Final score:			Category	

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	^
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianun
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan:
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum	*		
9	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:	Wetl	land	8	Rater(s):	K. Bomar	M. Denzler	Date: 12/31/2019
2	2	Met	ric 1. Wetlar	ıd Area (size	;).		
max 6 pts.	subtotal	Select	one size class and assi				
		-	>50 acres (>20.2ha) 25 to <50 acres (10.				
			10 to <25 acres (4 to	<10.1ha) (4 pts)			
		7	3 to <10 acres (1.2 t 0.3 to <3 acres (0.12				
			0.1 to <0.3 acres (0. <0.1 acres (0.04ha)	04 to <0.12ha) (1 pt)			
		Met			d surrour	nding land use	<u>a</u>
	3						
max 14 pts.	subtotal	2a. <u>Ca</u>		vidth. Select only one age 50m (164ft) or mor		e. Do not double check.	
		0	MEDIUM. Buffers a	verage 25m to <50m (8	82 to <164ft) aro	ound wetland perimeter (4)	
	,	X	NARROW. Buffers	average 10m to <25m uffers average <10m ((32ft to <82ft) at <32ft) around we	round wetland perimeter (1)
		2b. Inte	ensity of surrounding la	nd use. Select one or	double check ar	nd average.	
				owth or older forest, pr years), shrub land, yo			
		1 -		 H. Residential, fenced 	l pasture, park, c	conservation tillage, new fa	allow field. (3)
0			ric 3. Hydrol		r cropping, millin	ig, construction. (1)	
8	11	1	io o. Tiyaroi	ogy.			
max 30 pts.	subtotal	3a. So	urces of Water. Score a			3b. Connectivity. Score a	
			Other groundwater (Between stream	m/lake and other human use (1)
	4	- 2	Precipitation (1) Seasonal/Intermitten	t surface water (3)			l/upland (e.g. forest), complex (1 or upland corridor (1)
			Perennial surface wa	iter (lake or stream) (5)	3d. Duration inundation/s	aturation. Score one or dbl ched
		3c. Ma	>0.7 (27.6in) (3)	lect only one and assi	gn score.		anently inundated/saturated (4) dated/saturated (3)
			0.4 to 0.7m (15.7 to 2	27.6in) (2)		Seasonally inui	ndated (2)
		3e. Mo	_ <0.4m (<15.7in) (1) difications to natural hy	drologic regime. Score	e one or double		urated in upper 30cm (12in) (1)
			None or none appare		turbances observ		
	1		Recovered (7) Recovering (3)	ditch		point source (national filling/grading	onstormwater)
	1	X	Recent or no recover	y (1) dike weir		road bed/RR tra	ack
					ater input	other	
0	ıII	Met	ric 4. Habita	t Alteration a	and Deve	elopment.	
3	17					, , , , , , , , , , , , , , , , , , ,	
max 20 pts.	subtotal	4a. Sut	Strate disturbance. Sc None or none appare		ck and average.		
	1		Recovered (3)	(1)			
		X	Recovering (2) Recent or no recover	y (1)			
		4b. Hat	pitat development. Sele Excellent (7)		1 score.		
			Very good (6)				
			Good (5) Moderately good (4)				
	1		Fair (3)				
		X	Poor to fair (2) Poor (1)				
		4c. Hab	ital alteration. Score o		d average.		
			None or none appare Recovered (6)	ent (9) Check all dist	urbances observ	/ed shrub/sapling re	emoval
		-	Recovering (3)	grazing		herbaceous/aqu	uatic bed removal
T		1 4	Recent or no recover		tting e cutting	sedimentation dredging	
	14			woody o	debris removal	farming	a ant
SIL	btotal this pa	J ge		toxic pol	nutants	nutrient enrichm	IEIIL

16

End of Quantitative Rating. Complete Categorization Worksheets.

0

2

Absent

of marginal quality

and of highest quality

Present very small amounts or if more common

Present in moderate amounts, but not of highest

quality or in small amounts of highest quality
Present in moderate or greater amounts

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	8	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	D	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	16	Category based on scor breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	^	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(6	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, 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	(NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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 communitles may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca 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.

		al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Kate Bomar
Date: 12/31/2019
Affiliation: Stantec Consulting Services Inc.
Address: 11687 Lebanon Rd., Cincinnati, OH 45241
Phone Number: (513)-842-8200
e-mail address: Kate, bomarastantec. com
Name of Wetland: Wetland 9
Vegetation Communit(ies):
HGM Class(es): depressional
Project North Newark Station Newark
Lat/Long or UTM Coordinate 40, 210405°N, -82, 500127°W
USGS Quad Name Fredonia
County
Township
Section and Subsection
Hydrologic Unit Code 050H000L02.01
Site Visit 12 / 31 / 2019
National Wetland Inventory Map NONE
Ohio Wetland Inventory Map
Soil Survey (AK) Algiers silt loans frequently flooded
See Ecological Resources Inventory Report

ame of Wetland: Wetland detland Size (acres, hectares):	and 9	
ketch: Include north arrow, rela	tionship with other surface waters, vegetation zone	es, etc.
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omments, Narrative Discussion	, Justification of Category Changes:	
		*
inal score :	14	Category:

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	^
	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
1	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
3	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			Pour
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
•		Go to Question 10	
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 nver influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status Go to Question 10	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	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.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
	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.).	Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflore
	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianun
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinate
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		
	Solidago ohioensis	2 33		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:	Wetle	and	q	Rater(s):	K. Bomar	M. Denzler	Date: 2 31
0	J.	Metric 1	. Wetland	Area (size)			76
max 6 pts.	subtotal S	>50 25 t 10 t 3 to 0.3	e class and assign acres (>20.2ha) (6 o <50 acres (10.1 to o <25 acres (4 to <′ <10 acres (1.2 to < to <3 acres (0.12 to to <0.3 acres (0.04 acres (0.04ha) (0	pts) 0 <20.2ha) (5 pts) 10.1ha) (4 pts) (4ha) (3 pts) 0 <1.2ha) (2pts) to <0.12ha) (1 pt)			
	T. N	Metric 2	. Upland I	buffers and	surround	ing land use.	
max 14 pts.	0	b. Intensity of LOV	E. Buffers average DIUM. Buffers aver RROW. Buffers aver RY NARROW. Buffers aver Buffers aver Buffers aver Buffers aver Buffers aver Buffers B	erage 10m to <25m (< ers average <10m (<3 use. Select one or d th or older forest, prai ears), shrub land, your	around wetland poto <164ft) around 32ft to <82ft) around 32ft to <82ft) around wetlar ouble check and a rie, savannah, wild 19g second growth asture, park, cons	erimeter (7) wetland perimeter (4) id wetland perimeter (1) id perimeter (0) iverage. Illife area, etc. (7) forest. (5) iervation tillage, new falli	
8	O		B. Hydrolo				
max 30 pts	4	C. Maximum		urface water (3) r (lake or stream) (5) ct only one and assign	3d.	Part of wetland/u Part of riparian o Duration inundation/sat Semi- to perman Regularly inunda Seasonally inunda	ain (1) //ake and other human use (1) //ake and other human use (1) //pland (e g. forest), complex (1) r upland corridor (1) //uration. Score one or dbl chect ently inundated/saturated (4) //ted/saturated (3)
	3	Non Red Red	ons to natural hydro e or none apparent overed (7) overing (3) ent or no recovery (ditch	rbances observed	point source (not filling/grading road bed/RR track dredging other	
1,1	13	Metric 4	I. Habitat	Alteration a	nd Develo	pment.	
max 20 pts.	2	b Habitat de Exc Ven Good Mood Fair Poo	e or none apparent overed (3) overing (2) ent or no recovery (evelopment. Select ellent (7) / good (6) d (5) d (5) erately good (4) (3) r to fair (2) r (1)		score.		
	13 btotal this page 1 February	Non Rec Rec Rec	eration. Score one e or none apparent overed (6) overing (3) ent or no recovery (Check all distumowing grazing clearcutti selective	rbances observed ng cutting ebris removal	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal

Site:	W	etlan	d	9	Rater	(s)	<b< th=""><th>MD</th><th></th><th>Date: /</th><th>2/31/201</th></b<>	MD		Date: /	2/31/201
	13						-				
s	ubtotal first p	7	ric !	5. Spec	ial Wetlan	ds.					
U]									
max 10 pts.	subtotal	Check		apply and sco (10)	re as indicated.						
			_	i (10)							
				growth forest	(10)						
				ture forested w	` '			(40)			
		-			tributary wetland-ı tributary wetland-r		•				
			_		rairies (Oak Oper		nology	(0)			
		1	Reli	ict Wet Prairies	s (10)						
			_		e state/federal thre		_	. , ,			
		-			ory songbird/water nd. See Question						
	Ι	Mo			commun				microte	moara	nhv
	114	INICI	.116	o. Fiaiit	Commun	ities, ii	iter:	spersion,	micrott	phogra	priy.
max 20 pts.	subtotal	່ 6a W	etland '	Vegetation Cor	nmunities	Vegetatio	n Con	nmunity Cover S	cale		
20800				ent using 0 to		0		bsent or comprise		471 acres) co	ontiguous area
			_	uatic bed		1	P	resent and either	comprises sm	all part of we	tland's
		-	_	ergent				vegetation and is			nprises a
		_	Shr			2		significant part bur resent and either			of wetland's
			_	dflats		_		vegetation and is			
		1	Оре	en water				part and is of high			
		OF F	Oth		h	3		resent and compr			e, of wetland's
			only on	l (plan view) In	terspersion.	-	_	vegetation and is	of high quality		
			_	h (5)		Narrative	Desci	iption of Vegeta	tion Quality		
	,	~ E	_	derately high(4)	low		ow spp diversity a			native or
	(_	derate (3)				disturbance tolera			
		1	_	derately low (2) v (1))	mod		ative spp are dom although nonnativ			
			-	ne (0)				can also be prese			
				of invasive pla				moderately high,		w/o presence	of rare
				RAM long form		high	_	threatened or end		a with name	Mus and
		, or dedi		nts for coverage ensive >75% c		high	11 1110	predominance of and/or disturbance	The second second		
		/		derate 25-75%				absent, and high			•
			_	arse 5-25% cov				the presence of ra	are, threatene	d, or endang	ered spp
				arly absent <5% sent (1)	% cover (0)	Mudflet e		Water Class	Overlieve		
		6d. Mi		ography.		0		en Water Class (bsent <0.1ha (0.2			
				ent using 0 to	3 scale.	1		ow 0.1 to <1ha (0.		cres)	
			-	getated hummu		2		oderate 1 to <4h		acres)	
				•	oris >15cm (6in)	3	H	igh 4ha (9.88 acre	es) or more		
		1		nding dead >2: phibian breedir	5cm (10in) dbh na pools	Microton	ograni	hy Cover Scale			
		_		F	.5 600.0	0		bsent			
						1	P	resent very small of marginal qualit		more commo	n
						2		resent in moderat quality or in small	e amounts, bu		
						3	Р	resent in moderat			
Liz								and of highest qu	ality		

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	8	
	Metric 4. Habitat	4	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	.1	
	TOTAL SCORE	14	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	^	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold <i>(including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, 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 ondetailed assessments and the narrative criteria	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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, loca 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.

Choose one Category 1	Category 2 Category 3
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End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Aaron Kwolek
Date: 182020
Affiliation: Stantec
Address: 11087 Lebanon Rd. Cincinnati, OH 45241
Phone Number: 513-842-9200
e-mail address: aaron. Kwoleka Stantec. com
Name of Wetland: Wetland 10
Vegetation Communit(ies): PEM PSS
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Noo' Highway uz
Lat/Long or UTM Coordinate 40.22 9651°N, -82. 505387°W
Fredonia
County Licking
Township
Section and Subsection
Hydrologic Unit Code OSOH 00060201 Site Visit
National Wetland Inventory Map
Ohio Wetland Inventory Map
N A
Amanda Silt loam, le-12% slopes eroded
See Ecological Resources Inventory Report

Name of Wetland: Wetland Size (acres, hectares): No.3 acres (in Row) Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.
Secretary of the and t
Comments, Narrative Discussion, Justification of Category Changes:
Final score: 23 Category:

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain	YES	(NO)
	an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	2
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland	Go to Question 4	NO
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3-wetland Go to Question 8a	NO Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			/)
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	(NO)
9b	elevation, or along a tributary to Lake Erie that is accessible to fish? Does the wetland's hydrology result from measures designed to	Go to Question 9b YES	Go to Question 10
50	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?	Wetland should be evaluated for possible Category 3 status	Go to Question 96
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 96
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status Go to Question 10	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES /	NO
	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.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis ròstellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		ŭ.
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			0

End of Narrative Rating. Begin Quantitative Rating on next page.

Site:		1 1 3 3 5 5 5	1 117	Detaul	1. 1. 1. 1.	11111111	1011	Data	1 1 4 1 4
	We	tland	110	Rater	s): Aaron	KWO	ICK	Date:	11010
-		Matri	c 1. Wetlaı	nd Area (s	70)				W- 5,52
2	1	INCL	C I. Wetlai	ild Alea (S	20).				
nax 6 pts.	subtotal	Select one	e size class and ass	sign score.					
			>50 acres (>20.2ha						
		4	25 to <50 acres (10 10 to <25 acres (41		(S)				
			3 to <10 acres (1.2						
			0.3 to <3 acres (0.1	12 to <1.2ha) (2pts)					
		-	0.1 to <0.3 acres (0 <0.1 acres (0.04ha)		pt)				
1		Motri			and surrou	ndina	land itee		
6		Meri	CZ. Opian	u pullers a	ina samoui	luing	ialiu use	•	
x 14 pts.	subtotal	Ja Calcu	ilate average huffer	width Select only	one and assign scor	e Do not	double check.		
p	Constant		WIDE. Buffers ave	erage 50m (164ft) o	more around wetlan	nd perimete	er (7)		
			MEDIUM. Buffers	average 25m to <5	om (82 to <164ft) ard	ound wetlar	nd perimeter (4)		
			NARROW. Buffers	s average 10m to <	25m (32ft to <82ft) a 0m (<32ft) around w	round wett	and perimeter ()	
		2b. Intens	sity of surrounding I	and use. Select or	ne or double check a	nd average).		
			VERY LOW. 2nd o	growth or older fore	st, prairie, savannah	, wildlife an	ea, etc. (7)		
			LOW, Old field (>1	10 years), shrub lan	d, young second gro nced pasture, park,	wth forest.	(5)	llow field (3)	
			HIGH, Urban, indu	ustrial, open pasture	, row cropping, mini	ng, constru	ction. (1)	movv noid. (o)	
,	1.0		c 3. Hydro						
1	114	MCLI	o o. Hydro	nogy.					
x 30 pts.	subtotal	Ja, Source	ces of Water. Score	e all that apply.		3b. Conn	ectivity. Score		
-	-		High pH groundwal	ter (5)			100 year flood		
			Other groundwater	(3)	2.0		Between stream Part of wetland		
		-	Precipitation (1)	ent surface water (3)		Part of riparian		
	- de		Perennial surface v			3d. Durat	on inundation/s	aturation. Sco	re one or dbl
		3c. Maxir	mum water depth.	Select only one and	assign score.		Semi- to perma		
			>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to	o 27 6in) (2)			Regularly inund Seasonally inu		1 (3)
							Seasonally sat		r 30cm (12in)
			<0.4m (<15.7in) (1)						
		3e. Modif	fications to natural h	nydrologic regime.			average.		
		3e. Modi	fications to natural h	nydrologic regime. arent (12) Check a	II disturbances obse			onstormwater)	
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8 ax 20 pts.		Metri 4a. Subs 4b. Habit	Recovered (7) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (3) Recovered (3) Recovering (2) Recent or no recovered (3) Recovering (2) Recent or no recovered (6) Recovering (6) Recovering (7) Very good (6) Good (5) Moderately good (7) Fair (3) Poor to fair (2) Poor (1) Recovering (2) Recent or no recovered (3) Recovering (2) Recent or no recovered (3) Recovering (2) Recovering (2) Recovering (2) Recovering (2) Recovering (3) Recovering (2) Recovering (3) Recovering (4) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (6) Recovering (6) Recovering (6) Recovering (7) Recovering (6) Recovering (7) Recovering (6) Recovering (7) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recovering	arent (12) Check a did tile di	Il disturbances obserch Receptor of the community of the	elopm	point source (n filling/grading road bed/RR tr dredging other_	ack	
8 ax 20 pts.		Metri 4a. Subs 4b. Habit	Recovered (7) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (3) Recovering (2) Recovering (2) Recent or no recovered (3) Recovering (2) Recent or no recovered (6) Recovering (6) Recovering (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Recovered (6)	arent (12) Check a did tile were (1) at Alteration arent (4) wery (1) elect only one and a did tile were (4) wery (1) elect only one and a did tile were (4) wery (1) elect only one and a did tile were (1) elect on	Il disturbances obserch Receptor or and Dev Receptor or and Receptor or an	elopm	point source (n filling/grading road bed/RR tr dredging other	emoval	
8 ax 20 pts.		Metri 4a. Subs 4b. Habit	Recovered (3) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (3) Recent or no recovered (3) Recovered (3) Recovered (3) Recovering (2) Recent or no recovered (3) Recovering (2) Recent or no recovered (4) Recovering (5) Recovering (6) Recovering (7) Very good (6) Good (5) Moderately good (6) Good (5) Moderately good (6) Recovered (6) Recovered (6) Recovered (6) Recovering (3)	arent (12) Check a did tild di	Il disturbances obsech Receir Dommwater input Dom and Dev Receir Character input Receir Character input Receir Receir	elopm	point source (n filling/grading road bed/RR tr dredging other	emoval	
8 ix 20 pts.	subtotal	Metri 4a. Subs 4b. Habit	Recovered (7) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (3) Recovering (2) Recovering (2) Recent or no recovered (3) Recovering (2) Recent or no recovered (6) Recovering (6) Recovering (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Recovered (6)	arent (12) Check a did tile wery (1) at Alteration Score one or double arent (4) wery (1) elect only one and a arent (9) Check a arent (9) Check a wery (1) elect one or double chearent (9) Check a wery (1) elect one or double chearent (9) Check a wery (1) elect one or double chearent (9) Check a wery (1) elect one or double chearent (9) Check a wery (1) elect one or double chearent (9) Check a wery (1) elect one or double chearent (9) Check a wery (1) elect one or double chearent (9) Check a wery (1) elect one or double chearent (9) Elect one or double ch	Il disturbances obserch Recept of the community of the c	elopm	point source (n filling/grading road bed/RR tr dredging other	emoval	
8 ax 20 pts.		Metri 4a. Subs 4b. Habit	Recovered (3) Recovering (3) Recent or no recovered (7) Recovering (3) Recent or no recovered (3) Recent or no recovered (3) Recovered (3) Recovered (3) Recovering (2) Recent or no recovered (3) Recovering (2) Recent or no recovered (4) Recovering (5) Recovering (6) Recovering (7) Very good (6) Good (5) Moderately good (6) Good (5) Moderately good (6) Recovered (6) Recovered (6) Recovered (6) Recovering (3)	arent (12) Check a did tile wery (1) at Alteration Score one or double arent (4) very (1) elect only one and a arent (9) Check a wery (1) elect only one and a arent (9) Check a wery (1) elect only one and a arent (9) Check a wery (1) elect only one and a arent (9) Check a wery (1) elect only one and a arent (9) Check a wery (1) elect only one and a arent (9) Check a wery (1) elect only one and a arent (9) Check a wery (1) elect only one and a arent (9) Check a were were (1) electrons and a content of the conten	Il disturbances obseches Receir Dommwater input Dom and Dev Receir Receir	elopm	point source (n filling/grading road bed/RR tr dredging other	emoval uatic bed remo	

last revised 1 February 2001 jjm

23

End of Quantitative Rating. Complete Categorization Worksheets.

2

3

Microtopography Cover Scale

0 Absent

of marginal quality

and of highest quality

Present very small amounts or if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

Amphibian breeding pools

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES (NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
9	Metric 2. Buffers and surrounding land use	6	Mary Mary
11	Metric 3. Hydrology		New York
	Metric 4. Habitat	8	W W
	Metric 5. Special Wetland Communities	0	Se Friday
	Metric 6. Plant communities, interspersion, microtopography	-4	
	TOTAL SCORE	23	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland 10

Wetland Categorization Worksheet

Choices	Circle one	1	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(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 overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	20	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	10)	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?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, 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	NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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, loca 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.

	Fir	nal Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Aaron Kwolek	
Date: 1/8/2020	
Affiliation: Stantec	
Address:	
Phone Number:	
5/3-842-9200 e-mail address:	
Name of Wetland:	
Name of Wetland: Vegetation Communit(ies): PEM	
HGM Class(es): depressional	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
N	
1	
* flighway 62	
101	
Bruck	
Lat/Long or UTM Coordinate	
40, ~21824N, ~82, 505 211 W	
County	1
Township Licking County	
Section and Subsection	
Hydrologic Unit Code 0504000 L020	
Site Visit (/ 8 / 2020	
National Wetland Inventory Map PEMIC	
Ohio Wetland Inventory Map	
1-1/1	
Soil Survey Carliste Muck Delineation report/map	

Jame of Wetland:	
Name of Wetland: Wetland Size (acres, hectares): Sketch: Include north arrow, relationship with other sur	tacres
ketch: Include north arrow, relationship with other sur	offace waters, vegetation zones, etc.
Forested July July July July July July July July	Short
N Wethor Y	s posidertialum
Comments, Narrative Discüssion, Justification of Categ	gory Changes:
Final score : ID	Category: /

Scoring Boundary Worksheet

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

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

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

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

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical"	YES (NO Go to Question 2
	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	evaluated for possible Category 3 status	
	had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	Go to Question 2	
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES (Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	2
3	Documented High Quality Wetland. Is the wetland on record in	YES	NO)
	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 4.1812 July 6, 2000). 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? Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland? Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas? Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas? Wetland is a Category 3 wetland Go to Question 4 YES Wetland is a Category 3 wetland Go to Question 5 YES Wetland is a Category 3 wetland Go to Question 6 YES Wetland is a Category 3 wetland Go to Question 6 YES Wetland is a Category 3 wetland Go to Question 6 YES Wetland is a Category 3 wetland Go to Question 6 YES Wetland is a Category 3 wetland Go to Question 7 YES Wetland is a Category 3 wetland Go to Question 7 YES Wetland is a Category 3 wetland Go to Question 6 YES Wetland is a Category 3 wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagums pp., 3) the acidophilic mosses, particularly Sphagums pp., 3) the acidophilic mosses, particularly Sphagums pp., 3) the acidophilic mosses, particularly Sphagums pp., 3) th		
		Go to Question 4	_
4		YES	(NO)
			Go to Question 5
		Go to Question 5	0
5	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	Wetland is a Category 1 wetland	Go to Question 6
6	significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30%	Wetland is a Category	No Go to Question 7
7	Fens. Is the wetland a carbon accumulating (neat muck) wetland that		NO
_	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	Wetland is a Category 3 wetland	Go to Question 8a
0-	COLD County Forest H. I. the conflored of control of the cold in the		100
8a	forest characterized by, but not limited to, the following characteristics:		Go to Question 8b
	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?	Go to Question 8b	

			1)
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	0
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	YES	(NO)
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 90
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES /	NO)
	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.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis ròstellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

.005

Site:	Wet	lan	dll		Rater(s):	Aaron	Kwole	K	Date:	1/8/202
0		Me	tric 1. Wet	land Ar	ea (size).			167	
0										
max 6 pts.	subtotal	Selec	t one size class and >50 acres (>20).					
			25 to <50 acres		.2ha) (5 pts)					
		1	10 to <25 acres							
		+	3 to <10 acres 0.3 to <3 acres							
			0.1 to <0.3 acre	s (0.04 to <0		-				
		ال ا	<0.1 acres (0.0							
7	2	Me	tric 2. Upla	and but	mers and	surrou	naing	iand use		
max 14 pts.	subtotal]	Calculate average bu	fforwidth C	alast ank ana	and acción cao	re Do not	double check		
max 14 pts.	SUDIOIAI	2a. [WIDE, Buffers	average 50m	elect only one i (164ft) or moi	e around wetla	nd perimet	ter (7)		
	-	İ	MEDIUM. Buff	ers average 2	25m to <50m (8	32 to <164ft) an	ound wetla	nd perimeter (4)		
		+	VERY NARRO					land perimeter (imeter (0)	1)	
		2b.]	ntensity of surroundi	ng land use.	Select one or	double check a	and averag	e.		
	100	-	VERY LOW. 2 LOW. Old field							
		1						on tillage, new fa	llow field. (3)	
		, [HIGH. Urban,	ndustrial, op	en pasture, rov	cropping, mini	ng, constr	uction. (1)		
1	9	Me	tric 3. Hyd	rology) /	100	1			
6			A COLUMN	.0						
max 30 pls.	subtotal	3a. §	Sources of Water, S		apply.		3b. Con	100 year flood		
		1	High pH ground Other groundw			-				er human use (
100			Precipitation (1)						orest), complex
	Y		Seasonal/Inten			3)	3d. Dura	Part of riparian		
		3c.	Maximum water dept					Semi- to perma	enently inundar	ted/saturated (4
		-	>0.7 (27.6in) (3		(2)			Regularly inun		d (3)
			0.4 to 0.7m (15 <0.4m (<15:7in) (1)				Seasonally sat		r 30cm (12in) (1
		3e. Ì	Modifications to natu					d average.		
			None or none a	pparent (12)	Check all dis	turbances obse	erved	Tpoint source (n	onstormwater)	
			Recovered (7) Recovering (3)	1 1	tile			filling/grading		1
		- [Recent or no re		dike			road bed/RR tr	ack	
			10		weir	ater input		dredging other	-	
		1				-		-		
2	17	Me	etric 4. Hat	oitat Ait	eration	and Dev	eiobu	nent.		
max 20 pts.	subtotal	10	Substrate disturbano	o Score one	or double che	ck and average			-	
men ale proj.	and the same of	Ta.	None or none	pparent (4)	, or double one	on and avorage				
		S	Recovered (3)			4.1				
		1	Recovering (2) Recent or no re	covery (1)						
		4b.	Habitat development	Select only	one and assig	n score.				
			Excellent (7) Very good (6)		4					
			Good (5)	" -			1			
			Moderately god	od (4)			11			
			Fair (3) Poor to fair (2)							
			Poor (1))				
		4c. I	Habitat alteration. S							
				annarent (9)	II Check all dis	turbances obse	erved	-		
			None or none a	Apparont (o)				ehrub/conling	emoval	
			Recovered (6)		mowin	9		shrub/sapling r herbaceous/ac	emoval uatic bed remo	oval
					mowing grazing clearcu	g J utting		herbaceous/ac sedimentation	emoval uatic bed remo	oval
	10	1	Recovered (6) Recovering (3)		mowingrazing clearcu	g g utting ve cutting	Z	herbaceous/ac sedimentation dredging	emoval uatic bed remo	oval
	12		Recovered (6) Recovering (3)		mowin grazing clearcu selecti woody	g J utting	Z	herbaceous/ac sedimentation	uatic bed remo	oval

Site:	M	Hand	. 11	Rater(s): Aaro	on k	Lwolek	Date:	1/8/202
	12				-	144			
si	btotal first p	7							
0	12	Metri	c 5. Specia	al Wetland	s.				
ax 10 pts.	subtotal		that apply and score	as indicated.					
			Bog (10) Fen (10)		-				
		-	Old growth forest (1				- ,		
			Mature forested wet						
		100	Lake Erie coastal/tri Lake Erie coastal/tri	butary wetland-unr	estricted hydrolo tricted hydrolo	ology (1	10)		
			Lake Plain Sand Pra	airies (Oak Opening	gs) (10)	9) (0)	1		
			Relict Wet Prairies (Known occurrence :		anad ar andar				
			Significant migratory	y songbird/water fo	ened or endar wl habitat or u	ngerea Isaae (*	species (10) 10)		
-			Category 1 Wetland	. See Question 1	Qualitative Ra	ting (-1	0)		
γ	10	Metri	c 6. Plant	communit	ies, inte	ersp	ersion, micro	otopogr	aphv.
حر مد 20 = ا=	1.								
ax 20 pts.	subtotal	6a. Wetla	nd Vegetation Compresent using 0 to 3	munities.	Vegetation C		nity Cover Scale	(0.0474	
			Aquatic bed	scale.	1		nt or comprises <0.1ha nt and either comprises		
			Emergent			veg	etation and is of modera	ate quality, or o	
			Shrub Forest		2		ificant part but is of low		et of wellow die
			Mudflats		-		nt and either comprises etation and is of modera		
			Open water		-	part	and is of high quality		
			Other Intal (plan view) Inte	rspersion.	3		nt and comprises signife etation and is of high qu		nore, of wetland's
		Select only							
			High (5) Moderately high(4)		low		on of Vegetation Quali pp diversity and/or pred		onnative or
	1	1	Moderate (3)			dist	urbance tolerant native	species	
	1		Moderately low (2) Low (1)		mod		spp are dominant com		
			None (0)				ough nonnative and/or or also be present, and sp		
		6c, Cover	age of invasive plan	its. Refer		mod	lerately high, but genera	aliy w/o presen	
			ORAM long form for points for coverage	riist. Add	high		atened or endangered a dominance of native spe		nativa enn
			Extensive >75% cov	/er (-5)	111971		or disturbance tolerant		
			Moderate 25-75% c Sparse 5-25% cove				ent, and high spp divers		
	_ 2		Nearly absent <5%			tne	presence of rare, threat	ened, or endar	igered spp
			Absent (1)		Mudflat and	Open V	Vater Class Quality		
			opography. resent using 0 to 3	naalo	0		t <0.1ha (0.247 acres)		
			Vegetated hummucl		1 2		.1 to <1ha (0.247 to 2.4 rate 1 to <4ha (2.47 to		
			Coarse woody debri	s >15cm (6in)	3	-	tha (9.88 acres) or more		
			Standing dead >25c		Mine			1	
			Amphibian breeding	puois	Microtopogra 0	Abser			
					1		nt very small amounts o	or if more comm	non
					27	of m	arginal quality		
					2	Prese	nt in moderate amounts ity or in small amounts	s, but not of hig	hest
-					3		nt in moderate or greate		ity
							of highest quality		

End of Quantitative Rating. Complete Categorization Worksheets.

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in

Case No(s). 21-0525-EL-BLN

Summary: Notice Letter of Notification Application for the North Newark-Sharp Road 138 kV Transmission Line Rebuild Project 501-600 electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.