### Firelands Wind, LLC **Case No. 18-1607-EL-BGN**

### **Application Part 13 of 17**

#### Part 13 includes:

**Ecological Assessment (Part 4 of 8)** • Exhibit Z

Date Filed: January 31, 2019

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Attorneys for Firelands Wind, LLC



Photo 865: S1M\_154 stream substrate



Photo 867: S2M\_097 facing northwest



Photo 869: S2M\_097 stream substrate



Photo 866: S1M\_154 facing west



Photo 868: S2M\_097 facing southeast



Photo 870: S2M\_098 facing southwest



Photo 871: S2M\_098 facing northeast



Photo 873: S2M\_100 facing west



Photo 875: S2M\_100 stream substrate



Photo 872: S2M\_098 stream substrate



Photo 874: S2M\_100 facing east



Photo 876: W2M\_096 soil profile



Photo 877: W2M\_096 facing north



Photo 879: W2M\_096 facing south



Photo 881: WB2M\_099 facing west



Photo 878: W2M\_096 soil profile



Photo 880: W2M\_096 facing east



Photo 882: S1M\_155 facing east



Photo 883: S1M\_155 stream substrate



Photo 885: W1M\_152 facing south



Photo 887: W1M\_153 soil profile



Photo 884: W1M\_152 facing west



Photo 886: W1M\_152 soil profile



Photo 888: W1M\_153 facing northeast



Photo 889: W1M\_153 soil profile

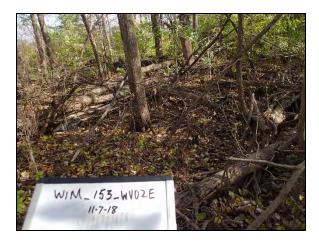


Photo 891: W1M\_153 facing east



Photo 893: W1M\_156 facing north



Photo 890: W1M\_153 facing south



Photo 892: W1M\_156 soil profile



Photo 894: W1M\_156 facing east



Photo 895: S2M\_101 facing northeast



Photo 897: S2M\_101 stream substrate



Photo 899: W2M\_102 facing east



Photo 896: S2M\_101 facing southeast



Photo 898: W2M\_102 soil profile



Photo 900: W2M\_102 soil profile



Photo 901: W2M\_102 facing south



Photo 903: W2M\_103 soil profile



Photo 905: W2M\_103 soil profile



Photo 902: W2M\_102 facing west



Photo 904: W2M\_103 facing east



Photo 906: W2M\_103 facing southeast



Photo 907: W2M\_103 facing northwest



Photo 909: W1M\_156 facing west



Photo 911: W1M\_157 soil profile



Photo 908: W1M\_156 soil profile



Photo 910: W1M\_156 facing west



Photo 912: W1M\_157 facing north



Photo 913: W1M\_157 soil profile



Photo 915: W1M\_157 facing east



Photo 917: WB1M\_158 facing south



Photo 914: W1M\_157 facing north



Photo 916: WB1M\_158 facing west



Photo 918: S2M\_105 facing east



Photo 919: S2M\_105 facing west



Photo 921: W2M\_104 soil profile



Photo 923: W2M\_104 soil profile



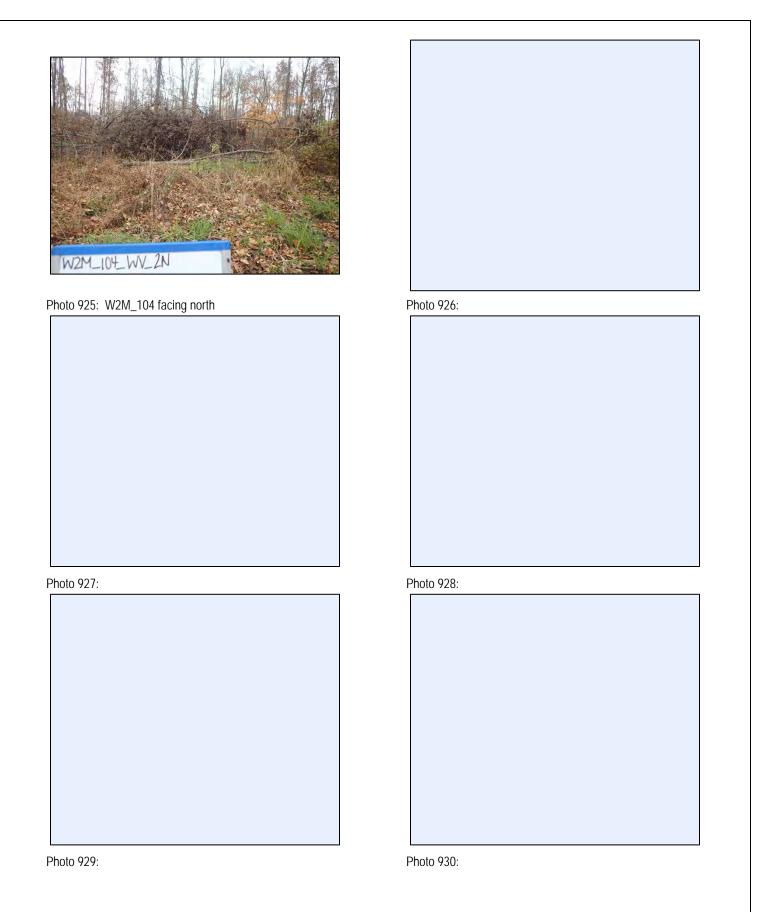
Photo 920: S2M\_105 stream substrate



Photo 922: W2M\_104 facing east



Photo 924: W2M\_104 facing south





# APPENDIX D ORAM Forms





## **Background Information**

Name: JOHN FREELAND	
Date: 11-30-2018	
Affiliation: MANNIK SMITH GROUP	
Address: 1800 INDIAN WOOD CIRCLE	
Phone Number: (4/9) 891-2222 × 2013	
e-mail address: JFREELAND @ MANNIKSMITHG.	
Name of Wetland: WIM-005	
Vegetation Communit(les):	
HGM Class(es): DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED WETLAND LOCATI	ON
MAP, FIGURE 4.	Y.
(6)	
.)	
Lat/Long or UTM Coordinate	
41, 26 334 USGS Quad Name	
20 uphr	
TOWNSHIP KIMBALL TYN R23W	
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lydrologic Unit Code 04100017.0505	
041000120505	
ilte Visit	
Site Visit  Iational Wetland Inventory Map	
Hydrologic Unit Code  041000120505  Site Visit  Unitional Wetland Inventory Map  Onlo Wetland Inventory Map  Onlo Wetland Inventory Map  Onlo Survey  501L SURVEY OF ERIE COUNTY OH	

	: WIR	1-005			
etland Size (acı	res, hectares):		0.11	Taribus Adulya Establish	
ketch: Include n	orth arrow, re	lationship wi	th other surface waters,	, vegetation zones, etc.	
SEE	1 ++1	CLUEN	07E 0. 4 . 0		
000	ATTA	CHED	WETLAND	DELINEATION	MAT
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#### 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 configuous 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.	YES	4
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.	YES	
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.	YES	
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.	KES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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		
	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 plove has had critical habitat proposed (65 FR 41812 July 6, 2000)	Wetland should be evaluated for possible Category 3 status  Go to Question 2	(NO) Go to Question :
2	Threatened or Endangered Species. Is the wetland known to contri	ain 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.	
_	Documented High Quality Wetland. Is the wetland on record in	Go to Question 3	1
	Natural Heritage Database as a high quality wetland?	YES	(NO)
		Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	00
	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
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre)	Go to Question 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 no vegetation?	Wetland is a Category 1 wetland Go to Question 6	NO to Question 6
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES 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
1	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	Go to Question 7 YES	Fall
	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%?		Go to Question 8a
+	"Old Growth Farest " In the water "	Go to Question 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	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	YES	(NO)
	deciduous trees with large diameters at breast height (dbn), generally	Wetland should be evaluated for possible	Go to Question 9a
	diameters greater than 45cm (17.7in) dbh?	Category 3 status.	
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
ou.	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Go to Question 10
9b	Doos the wetland's hydrology result from measures designed to	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,	YES	NO
90	I : - the wetland is hydrologically unrestricted (no lakeward or upiand	Go to Question 9d	Go to Question 10
	border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These	00.00	
	include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.		
9d	De on the wotland 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	Go to Question 9e
	Mative species can also be present.	3 wetland	
		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	Go to Question 10
	,	evaluated for possible Category 3 status	
		Go to Question 10	
	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO)
10	Lucas Eulton Henry or Wood Counties and can the Wetland be	Wetland is a Category	Go to Question 11
	characterized by the following description: the wetland has a sandy	3 wetland.	Co to Question 11
	I accordingles of the surface and often with a dominance of the	Go to Question 11	
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	Co to Quocuen 11	
	Natural Areas and Preserves can provide assistance in confirming this		
11	type of wetland and its quality.  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	Wetland should be	Complete
	Counties) Sandusky Plains (Wyandof, Crawford, and Marion 1	evaluated for possible	Quantitative Rating
	Counties), Gandasky Flatic (crystians), Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 3 status	Nating
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1.	Characteristic	plant s	pecies.
----------	----------------	---------	---------

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 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 Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex irisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechseria 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 canadensi Calamagrostis stricte Carex atherode. Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi. 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.

ORAM v. 5.0 Field Form Quantitative Rating

Site: WIK	005 Rater(s): AEP JAF Date: 9/12//8
( (	Metric 1. Wetland Area (size).
max 6 pts. subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   < 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   <0.1 acres (0.04ha) (0 pts)
112	Metric 2. Upland buffers and surrounding land use.
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  LOW. Old field (>10 years), shrub land, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)  HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)
5 7	Metric 3. Hydrology.
max 30 pts. subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)  Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)  3b. Connectivity. Score all that apply.  100 year floodplain (1) Between stream/lake and other human use (1) Part of vetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1) Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) Seasonally saturated in upper 30cm (12in) (1)
·	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)  None or none apparent (12) Check all disturbances observed ditch point source (nonstormwater) filling/grading road bed/RR track dredging other stormwater input other
3 10	Metric 4. Habitat Alteration and Development.
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor (1)
	4c. Habitat alteration. Score one or double check and average.
subtotal this pa	

Site:	MILLI	-005	Rate	r(s):	TAF	TAED	Date:	9/12/
	00171	-		, (-).	971	100		1/14
	10	1						
	subtotal first p	age						
1	10	Metric 5. Sp	ecial Wetla	nds.				
0	10							
ax 10 pts.	subtotal	Check all that apply and Bog (10)	d score as indicated.					
		Fen (10)						
		Old growth fo						
			ed wetland (5) astal/tributary wetland-	unrestric	ted hydr	ology (10)		
			stal/tributary wetland-					
			and Prairies (Oak Ope	nings) (1	0)			
		Relict Wet Pr						
			rence state/federal thr gratory songbird/wate					
			etland. See Question					
5	1-	The state of the s				rspersion, mici	rotopoar:	anhy
2	12		ooiiiiiiaii			roperoren, mile	otopogii	apiny.
x 20 pts.	subtotal	6a. Wetland Vegetation	Communities.	Vege	tation C	ommunity Cover Scale		
		Score all present using	0 to 3 scale.		0	Absent or comprises <0.1ha		
		Aquatic bed  Emergent			1	Present and either comprise		
		Shrub				vegetation and is of mode significant part but is of lo	Property of the second	omprises a
		Forest		-	2	Present and either comprise		t of wetland's
		Mudflats				vegetation and is of mode	rate quality or co	mprises a sma
		Open water Other			3	part and is of high quality	Manual and	
		6b. horizontal (plan view	v) Interspersion.		3	Present and comprises sign vegetation and is of high or		ore, or wetland:
		Select only one.	× 1100.03 1.510.161.11	-	F 799	THE DESCRIPTION OF THE PERSON		
		High (5) Moderately hig	ab(d)			cription of Vegetation Qua Low spp diversity and/or pre		
		Moderate (3)	727		w	disturbance tolerant native		onnative or
		Moderately lov	v (2)	m	nod	Native spp are dominant cor		
		Low (1) None (0)				although nonnative and/or can also be present, and s		
		6c. Coverage of invasive	e plants. Refer			moderately high, but gene		
		to Table 1 ORAM long for				threatened or endangered		
		or deduct points for cove		hi	gh	A predominance of native sp		
		Extensive >75 Moderate 25-7				and/or disturbance toleran absent, and high spp diver		
		Sparse 5-25%				the presence of rare, threa		
		Nearly absent		Table VI		THE RESERVE TO BE A STATE OF THE PARTY OF TH		
		Absent (1)		-		pen Water Class Quality		
		<ol> <li>6d. Microtopography.</li> <li>Score all present using 0</li> </ol>	to 3 scale.			Absent <0.1ha (0.247 acres Low 0.1 to <1ha (0.247 to 2.		
		Vegetated hum		_		Moderate 1 to <4ha (2.47 to		
		Tarrell Carlotte Carlotte	debris >15cm (6in)	;	3	High 4ha (9.88 acres) or mor	e	
		Standing dead Amphibian bre	>25cm (10in) dbh	Micros	onogra	aby Cover Sects		
		Manipriible of the	eding pools	WICTOL		ohy Cover Scale Absent		
				-		Present very small amounts	or if more comm	on
						of marginal quality		
				2	2 F	Present in moderate amounts		
				-	3 F	quality or in small amounts Present in moderate or great		у
					11/	great	e. dilibuillo	

12

End of Quantitative Rating. Complete Categorization Worksheets.

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WIM-005

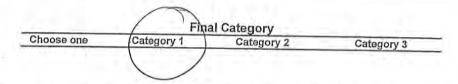
### **ORAM Summary Worksheet**

		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	Metric 1. Size	1	
Rating	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	5	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	()	
	Metric 6. Plant communities, interspersion, microtopography	Z	Catagory based on page
	TOTAL SCORE	12	Category based on score breakpoints

 ${\bf Complete\ Wetland\ Categorization\ Worksheet}.$ 

# 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 scorin 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	160)	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?	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).
	written justification for recategorization	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.



End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name: JOHN FREELAND
Date: 11-30-2018
a court ()
MANNIK SMITH GROUP
Address:  1800 INDIAN WOOD CIRCLE, MAUMEE, OH 43537  Phone Number: (N.C.) COLOR SEED X 2013
Phone Number: (419) 891-222 X2013
e-mail address:  JEREELAND @ MANNIKSMITHGROUP, COM
Name of Wetland: 4)1M - 007
Vegetation Communit(les):
HGM Class(as):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Location of Wetland: include map, address, north arrow, failurialities, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
. •
·
Lat/Long or UTM Coordinate 41. 26347, -82. 73944
USGS Quad Name
County ERIE THN. RZ3W
ERIE T4N, R23W Township
Section and Subsection
Section and Subsection  KMBALL T4N, R23W  Hydrologic Unit Code
9-12-2018
National Wetland Inventory Map
Validial Medalid inventory Map
Ohio Wetland Inventory Map
Chilo Wetland Inventory Map
Ohio Wetland Inventory Map .

Vetland Size (acres, hectares):	19.18 1	1CRE	
Sketch: Include north arrow, rela	tionship with other surfac	4 CRE ce waters, vegetation zones, etc.	
SEE ATTACHE	5 WETLAND	DELINEATION	MAP
FIGURE 4.		B / W / AV / AV / AS / AS / AS / AS / AS / AS	, ,,,
116 ance 4.			
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nments, Narrative Discussion, J	ustification of Category C	hanges:	
nments, Narrative Discussion, J	ustification of Category C	hanges:	

#### 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.	YES	·
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.	YES	
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.	YES	·
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.	YE 5	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 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 plovings had critical habitat proposed (65 FR 41812 July 6, 2000).	Wetland should be evaluated for possib Category 3 status	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to conta an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Catego 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 Categor 3 wetland	y 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?	Go to Question 4 YES Wetland is a Category 3 wetland	Go to Question 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?	Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 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
	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%?	Go to Question 7 YES  Wetland is a Category 3 wetland	Go to Question 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 frees 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?	Go to Question 8a YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 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 Go to Question 9b	(NO) Go to Question 10
	elevation, or along a tributary to Lake Erie that is accessible to fish?	YES YES	NO
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	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,	YES	NO
30	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.	Go to Question 9d	Go to Question 10
-0.1	Does the wetland have a predominance of native species within its	YES	NO
9đ	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland Go to Question 10	Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
56	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
	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
10	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	Wetland is a Category 3 wetland.  Go to Question 11	Go to Question 11
	Natural Areas and Preserves can provide assistance in confirming this		
11	type of wetland and its quality.  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

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 Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmit Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis 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 macrocarpon 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 sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

WIM-007

Site:	Rater(s):	AER	MI		Date: 9//2	2 <i>/18</i>
		•			f	,
Metric 1. Wetland	Area (size	).				
max 6 pts. subtotal Select one size class and assign so >50 acres (>20.2ha) (6 p						
25 to <50 acres (10.1 to	<20.2ha) (5 pts)					
10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4)						
0.3 to <3 acres (0.12 to <	1.2ha) (2pts)					
0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pt						
Matric 2 Unland b		surrou	ınding	land use.		
1 1 1 1						
max 14 pts. subtotal 2a. Calculate average buffer width	Select only one a	and assign so	ore. Do not	t double check.		
WIDE. Buffers average 5 MEDIUM. Buffers average	ie 25m to <50m (8	2 to <164ft) a	round wetla	and perimeter (4)		
NARROW. Buffers avera VERY NARROW. Buffer	age 10m to <25m	(32ft to <82ft)	around we	tland perimeter (1)		
2b. Intensity of surrounding land us	se. Select one or	double check	and average	je.		
VERY LOW. 2nd growth LOW. Old field (>10 year	or older forest, pra	airie, savanna	h, wildlife a	rea, etc. (/)		
MODERATELY HIGH, F	esidential, fenced	pasture, park	, conservati	ion tillage, new fallo	w field. (3)	
HIGH. Urban, industrial,		cropping, mir	ning, constr	uction. (1)		
6   8   Metric 3. Hydrolog	у.					
max 30 pts. subtotal 3a. Sources of Water. Score all th	at apply.		3b. Con	nectivity. Score all t	that apply.	•
High pH groundwater (5)				100 year floodpla	in (1) ake and other hum	an use (1)
Other groundwater (3) Precipitation (1)				],Part of wetland/up	oland (e.g. forest),	complex (1)
Seasonal/Intermittent sur			3d Dura	Dart of riparian or Ition inundation/satu	upland corridor (1)	or dbl check.
Perennial surface water ( 3c. <u>Maxi</u> mum water depth. Select	only one and assig	ın score.	Ju. Dure	Semi- to permane	ently inundated/satu	urated (4)
>0.7 (27.6in) (3)			-	Regularly inundat		
0.4 to 0.7m (15.7 to 27.6i <0.4m (<15.7in) (1)				Seasonally satura	ated in upper 30cm	(12in) (1)
3e. Modifications to natural hydrolo				d average.		
None or none apparent (* Recovered (7)	(12) Check all distribution	urdances obs	erved	point source (non	stormwater)	
Recovering (3)	tile			filling/grading road bed/RR track	k	
Recent or no recovery (1)	dike weir			dredging	`	
		iter input		other		
7 Metric 4. Habitat A	Iteration a	and Dev	/elopn	nent.		
	devible oboo	k and avorag	0			
max 20 pts. subtotal 4a. Substrate disturbance. Score of None or none apparent (4	she or double chec ()	K allu avelag	С.			
Recovered (3) Recovering (2)						
Recent or no recovery (1)						
4b. Habitat development. Select o	nly one and assign	score.				
Very good (6)						
Good (5)  Moderately good (4)						
Fair (3)						
Poor to fair (2) Poor (1)						
4c. Habitat alteration. Score one o	r d <u>ouble check and</u>	d average.				1
None or none apparent (	Check all distribution	urbances obs	erved	shrub/sapling rem	noval	
Recovering (3)	grazing			herbaceous/aqua		
Recent or no recovery (1)	clearcut		<u> </u>	sedimentation dredging		
\(	woody o	lebris remova		farming	nt.	
subtotal this page	toxic po	iutants	L	nutrient enrichme	IIL	
last revised 1 February 2001 jjm	L					-

Site:	Rate	er(s):	Date: 9/12/1
		J. (C).	
subtot	d first page		
0	Metric 5. Special Wetla	nds.	
max 10 pts. si	Check all that apply and score as indicated.		
	Bog (10) Fen (10)		
	Old growth forest (10)  Mature forested wetland (5)		
	Lake Erie coastal/tributary wetland	f-unrestricted hy	ydrology (10)
	Lake Erie coastal/tributary wetland		rology (5)
	Lake Plain Sand Prairies (Oak Op Relict Wet Prairies (10)	enings) (10)	
	Known occurrence state/federal th	reatened or end	dangered species (10)
	Significant migratory songbird/water		• , ,
	Category 1 Wetland. See Questio		
0 (	Metric 6. Plant commun	nities, in	terspersion, microtopography.
max 20 pts, su	btotal 6a. Wetland Vegetation Communities.		Community Cover Scale
	Score all present using 0 to 3 scale.  Aquatic bed	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	/ Emergent	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	Forest	2	Present and either comprises significant part of wetland's
	Mudflats		vegetation and is of moderate quality or comprises a small
	Open water Other	3	part and is of high quality
	6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	Select only one.		vogetation and is or riigh quanty
	High (5)	Narrative D	Description of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3) Moderately low (2)	mod	disturbance tolerant native species
	Low (1)	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage  Extensive >75% cover (-5)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		
	Absent (1)		d Open Water Class Quality
	6d. Microtopography. Score all present using 0 to 3 scale.	<u> </u>	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh		
	Amphibian breeding pools		raphy Cover Scale
		0 1	Absent Present very small amounts or if more common
		,	of marginal quality
		2	Present in moderate amounts, but not of highest
			quality or in small amounts of highest quality
<del></del>		3	Present in moderate or greater amounts

1(

End of Quantitative Rating. Complete Categorization Worksheets.

WIM\_007

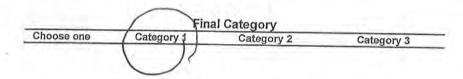
## **ORAM Summary Worksheet**

		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	Metric 1. Size	1	
Rating	Metric 2. Buffers and surrounding land use		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	Metric 3. Hydrology	6	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	0	
	TOTAL SCORE	11	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 <i>less</i> than the Category 2 scorin threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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	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).	
coes the wetland otherwise whibit moderate OR superior ydrologic OR habitat, OR screational functions AND se wetland was not attegorized as a Category 2 setland (in the case of oderate functions) or a sategory 3 wetland (in the ase of superior functions) by is method?	Wetland was undercategorized by this method. A written justification for recategorization	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.	



End of Ohio Rapid Assessment Method for Wetlands.



# Background Information

Name: JOHN FREE LAND
Date: 1/-30-2018
Affiliation:  MANNIK SMITH GROUP
Address:  1800 (NDIAN WOOD CIRCLE, MANNEE, OH -43537  Phone Number:
Phone Number: (4,0) 89/-2227 X 20/3
e-mail address: TEREE LAND @ MANNIKSHITHGROUPCOM
Name of Wetland: WIM-008
Vegetation Communit(ies):
HGM Class(es): D€PRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP,
FIGURE 4
ridured 4.
·
是一个专家的,我们就是一个专家的,我们就是一个专家的,我们就是一个专家的,我们就是一个专家的,我们就是一个专家的,我们就是一个专家的。
Lat/Long or UTM Coordinate 41, 26467, -82,74/14
USGS Quad Name
County
TOWNSHIP KIMBALL TYN, RZYW
Section and Subsection
- Hydrologic Unit Code 041000120505
Site Visit 9/12/2018
National Wetland Inventory Map
Dhio Wetland Inventory Map
Soil Survey SULL SURVEY OF ERIE COUNTY OH
Pelineation report/map  ATTACHED

Name of Wetland: WIM-008 Wetland Size (acres, hectares): Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. SEE ATTACHED WETLAND DELINEATION MAP, FIGURE 4. Comments, Narrative Discussion, Justification of Category Changes:

Final score: / O 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.

-it	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.	YES	
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.	YES	
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.	YES	10(
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	Crifical Habitat. Is the wetland in a township, section, or subsection 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 plov has had critical habitat proposed (65 FR 41812 July 6, 2000).	Wetland should be evaluated for possil Category 3 status  Go to Question 2	Go to Question :
2	Threatened or Endangered Species. Is the wetland known to contra an Individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Catego	Ory Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	Go to Question 3 YES Wetland is a Catego 3 wetland	ry 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?	Go to Question 4 YES Wetland is a Category 3 wetland	NO Go to Question 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?	Go to Question 5 YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 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
	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%?	Go to Question 7 YES Wetland is a Category 3 wetland	NO Go to Question 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?	Go to Question 8a 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	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	0
_	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
9a	an elevation less than 575 feet on the USGS map, adjacent to this	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	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	Go to Question 10
9d	Deep the wetland have a predominance of native species within its	YES	NO
ou .	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	NO Go to Question 10
		Go to Question 10	NO .
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	YES Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO
11	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

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 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 Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex risperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium macrocarpon 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 buxbaumii Carex pellita Carex sartwellit Gentiana andrewsii Helianthus grosseserratus Litatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellit

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

Site:	1.1111	DAG	R	ater(s):	ATT		Date: 9/1/7	119
site.	WIT	-008		ater(s).	NO		1	11
0	D	Metric 1. V	etland Are	a (size).				
nax 6 pts.	subtotal	25 to <50 10 to <25 3 to <10 a 0.3 to <3 a 0.1 to <0.3	(>20.2ha) (6 pts) acres (10.1 to <20.2 acres (4 to <10.1ha) cres (1.2 to <4ha) (3 cres (0.12 to <1.2ha acres (0.04 to <0.1	(4 pts) pts) i) (2pts)	0.00	f		
1	(	Metric 2. U	(0.04ha) (0 pts) pland buff	ers and	surround	ling land	use.	
ax 14 pts.	subtotal	MEDIUM. NARROW VERY NAI  2b. Intensity of surro VERY LOW. LOW. Old	ffers average 50m (*) Buffers average 25 Buffers average 10 RROW. Buffers average 10 RROW. Buffers average 10 V. 2nd growth or old field (>10 years), st	164ft) or more and to <50m (82 or to <50m (82 or to <25m (3 or to <10m (<3 or to continuous to conti	around wetland p to <164ft) aroun 2ft to <82ft) arou 2ft) around wetla buble check and ie, savannah, wil g second growth asture, park, con	erimeter (7)  I wetland perim  nd wetland per  nd perimeter (0  average.  dlife area, etc.  forest. (5)  servation tillage	neter (4) imeter (1) i)) (7) c, new fallow field. (3)	
4	5	Metric 3. H		002000000000000000000000000000000000000				
30 pts.	subtotal	Other group Precipitation Seasonal/I Perennial seasonal/I Perennial seasonal/I Perennial seasonal/I Perennial seasonal/I Perennial seasonal/I Perennial seasonal seas	oundwater (5) ndwater (3) on (1) ntermittent surface v surface water (lake o depth. Select only o n) (3) n (15.7 to 27.6in) (2)	vater (3) or stream) (5) one and assign egime. Score o	3d score. ne or double che	100 ye. Betwee Part of Part of Duration inun Semi- I Regula Seasor Seasor sk and average	the state of the state of	omplex (1) or dbl check rated (4)
		Recovered Recovering	(7)	ditch tile dike weir stormwate		point so	ed/RR track	
3	0	Metric 4. H	labitat Alte	ration a	nd Devel	opment.		
ax 20 pts.	subtotal	Recovered Recovering Recent or 4b. Habitat developr Excellent ( Very good Good (5) Moderately Fair (3) Poor to fair Poor (1) 4c. Habitat alteration	nne apparent (4) (3) (3) (3) (2) (nent. Select only on (7) (6) (7) (9) (9) (1) (1) (2) (2) (2) (3) (4) (5) (6) (7) (6) (7) (7) (8) (9) (9) (9) (9) (9) (9) (9) (1) (9) (1) (1) (1) (2) (1) (2) (3) (4) (5) (6)	e and assign s	core.	shrub/s	sapling removal eous/aquatic bed removal	
			no recovery (1)	clearcuttir selective		sedime	ntation	

ORAM v. 5.0 Field Form Quantitative Rating Site: WIM-1208 Rater(s): AEP Date: 8 subtotal first pag Metric 5. Special Wetlands. 0 max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. 2 O max 20 pts. 6a. Wetland Vegetation Communities. subtotal Vegetation Community Cover Scale Score all present using 0 to 3 scale, Absent or comprises <0.1ha (0.2471 acres) contiguous area 0 Aquatic bed Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality Forest 2 Present and either comprises significant part of wetland's Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other Present and comprises significant part, or more, of wetland's 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage high A predominance of native species, with nonnative spp Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually Moderate 25-75% cover (-3) absent, and high spp diversity and often, but not always. Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. Absent <0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) Vegetated hummucks/tussucks Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent 0 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality

10

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-008

### 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 scorin 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	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 lydrologic OR habitat, OR ecreational functions AND he wetland was not ategorized as a Category 2 retland (in the case of hoderate functions) or a lategory 3 wetland (in the lase of superior functions) by his method?	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, 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.

	KIII	al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

## **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.
11	Question 7. Fens	YES NO	If yes, Category 3.
41	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	
toung	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	ч	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	17 /	the contract of the contract o
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE		Category based on score breakpoints

Complete Wetland Categorization Worksheet.

WIM- 027/029/030/03/ CLUSTER



### **Background Information**

Name: JOHN FREELAND	
Date: 11-26-2018	
Affiliation: MANNIK & SMITH GROUP	
Address:	
1800 INDIANWOOD GRCLE Phone Number: (419) 891-222 X 201.	3
Name of Wetland: 1 1 M AZ 7 (0.29 (0.20) (0.2)	ur com
Name of Wetland: $\omega/M_027/029/030/031$ Vegetation Communit(ies):	
PFO	
HGM Class(es): DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP FIGURE	4.
at/Long or UTM Coordinate	
SGS Quad Name 41, 21005, -82, 80729	
HURON	
ovenship	
ection and Subsection ROCK T3N, R2YW	
ydrologic Unit Code 04/000/20505	
te Visit	
ational Wetland Inventory Map	
nio Wetland Inventory Map	
SOIL SURVEY OF HURON COUNTY, OH	
elineation report/map  ATTACHED	

Wetland Size (acree, hectares): 3,3 ACRES TOTAL  Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.  3 EE ATTACHED WETLAND DELINEATION MAP, FIGURE 4.	Name of Wetland:	
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.  SEE ATTACHED WETLAND DELINEATION MAP, FIGURE 4.	W1M - 02/1029	030/03/
GEE ATTACHED WETLAND DELINEATION MAP, FIGURE 4.		STOTAL
	Sketch: include north arrow, relationship with other surface w	raters, vegetation zones, etc.
	,	
	SEE ATTACHED LIETIAL	0 250 150 50 1
	S- MINGHED WE THAN	O DELINEATION
	MAP, FIGURE 4.	
omments, Narrative Discussion, Justification of Category Changes:		
omments, Narrative Discussion, Justification of Category Changes:		
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	14	
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	inal score: - O	Category:

WIM\_ 027/029/030/03/ CLUSTER

#### 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.

IT	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.	YES	
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.	YES	
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.	YES	·
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES YES	
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.	HES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	To
1	Critical Habitat. Is the wetland in a township, section, or subsection a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical"		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 had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	evaluated for possible Category 3 status Go to Question 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?	Wetland is a Category 3 wetland.	Go to Question 3
	Documented High Quality Wetland. Is the wetland on record in	Go to Question 3	
	Natural Heritage Database as a high quality wetland?	YES Wetland is a Category	Go to Question 4
		3 wetland Go to Question 4	2
	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
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre)	Go to Question 5	2
	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, Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland  Go to Question 6	Go to Question 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
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	Go to Question 7	~
	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	YES Wetland is a Category 3 wetland	NO Go to Question 8a
	invasive species listed in Table 1 is <25%?	Go to Question 8a	
	"Old Growth Forest." Is the wetland a forested wetland and is the		NO S
	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	Wetland is a Category 3 wetland.	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	

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8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NQ
	Leavy were of the cover of upper forest canopy consisting of	Wetland should be	Go to Question 9a
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	evaluated for possible	
	diameters greater than 400m (777m) 4277	Category 3 status.	
		Go to Question 9a	A
	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
9a	I are algustion loss than 575 feet on the USGS map, adjacent to this		On to Ougation 10
	aloyation or along a tributary to lake Erie that is accessible to itsii?	Go to Question 9b YES	Go to Question 10
9b	Deep the wetland's hydrology result from measures designed to	YES	INO
	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or	Wetland should be	Go to Question 9c
	landward dikes or other hydrological controls?	evaluated for possible	
	latiuward direct of out of the constant	Category 3 status	
		Go to Question 10	
	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
9c	the westend in bydrologically unrestricted (no lakewaru or uplanu	0- 4- 000-4 04	Go to Question 10
	I i miles elegations) or the wetland can be characterized as all	Go to Question 9d	Go to Question to
	"estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth		
	there dominated by submersed adulatic vedetation.		
9d	The stand bayo a predominance of native species will ill its	YES	NO
ou	vegetation communities, although non-native or disturbance tolerant	Wetland is a Category	Go to Question 9e
	native species can also be present?	3 wetland	
		Go to Question 10 YES	NO
9e	Does the wetland have a predominance of non-native or disturbance	YES	
	tolerant native plant species within its vegetation communities?	Wetland should be	Go to Question 10
	,	evaluated for possible	
		Category 3 status	
		Go to Question 10	
40	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES (	NO) ·
10	Lucian Evitor Hoppy of Wood Counties and can the Welland be	Methand in a Catagori	Go to Question 11
	I was to seed by the following description: the Welland Has a sally	Wetland is a Category 3 wetland.	GO TO MACSTOLL LL
	substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	C Houaria.	
	arominous vegetation listed in Table 1 (WOODV Species may also be	Go to Question 11	
	The Obje Department of Natural Resources Division of		
	Natural Areas and Preserves can provide assistance in confirming this		
	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
11	I deminated by some or all of the species in Table 1. Extensive plaines		O constants
	I was formarily located in the Darby Plains (Madison and Union I	Wetland should be	Complete Quantitative
	l o \ Odusia, Dising (M/Jandot CraWford 200 MidUU)	evaluated for possible Category 3 status	Rating
	Counties), Sandusky Plains (Wyalldot, Graffield, arthurst, Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Catogory o ctatae	. 5
	and portions of Western Onlo Counties (e.g. Dance, Meroor, Mieron, Montgomery, Van Wert etc.).	Complete Quantitative	
ĺ	Workgomery, vari vveit etely.	Rating	

Table 1	Characteristic plant species.	
lable i.	Characteristic plant species.	

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Myriophyllum spicatum Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex cehinata 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 canadensi Calamagrostis stricta Carex atherode. Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsii 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.

ORAM v. 5.0 Field Form Quantitative Rating

Site:	A	70,200		Rater(s):	AET		Date:	9/17//8
	- (/ - '	00					-	, , , , , ,
3	3	Metric	1. Wetland A	rea (size)	•	61M- 08	功	029,03
max 6 pts.	subtotal		size class and assign scor			<u> </u>	7	601
			50 acres (>20.2ha) (6 pts) 5 to <50 acres (10.1 to <2		27=6.6	· ·		031
	(	10	) to <25 acres (4 to <10.1	ha) (4 pts)	29 = 6.9	5178		
	•		to <10 acres (1.2 to <4ha 3 to <3 acres (0.12 to <1.		30 = 1.6	8		
		0.	1 to <0.3 acres (0.04 to <	0.12ha) (1 pt)	31=6.8	G		
	l .		0.04ha) (0 pts)					
8	-	INIETRIC	2. Upland bu	illers allu	Surround	ilig laliu use.		
max 14 pts.	subtotal	J ⊇a. Calcula	te average buffer width.	Select only one ar	nd assign score. [	o not double check.		
		W	IDE. Buffers average 50 EDIUM. Buffers average	m (164ft) or more	around wetland pe	erimeter (7) wetland perimeter (4)		
		I N	ARROW, Buffers average	e 10m to <25m (3	32ft to <82ft) arour	nd wetland perimeter (1)		
		Oh Intensity	ERY NARROW. Buffers and one of surrounding land use	average <10m (<3	32ft) around wetlar	nd perimeter (0)		
		. [X]V	ERY LOW. 2nd growth o	r older forest, prai	rie, savannah, wild	llife area, etc. (7)		
		LC	DW. Old field (>10 years) ODERATELY HIGH. Res	), shrub land, you	ng second growth	forest. (5) envation tillage, new fallo	ow field. (3)	
		_ H	IGH. Urban, industrial, or	pen pasture, row	cropping, mining, c	onstruction. (1)	,,	
17	28	Metric	3. Hydrology	<b>7.</b>				
max 30 pts.	subtotal		of Water. Score all that	apply.	3b.	Connectivity. Score all 100 year floodpla		anticontrol training disperse
			igh pH groundwater (5) ther groundwater (3)					her human use (1)
		P	recipitation (1)	(2)		Part of wetland/u Part of riparian or	–	forest), complex (1)
			easonal/Intermittent surfa erennial surface water (la		3d.	Duration inundation/sat	uration. So	ore one or dbl check.
			m water depth. Select or	nly one and assign	n score.	Semi- to permand Regularly inunda		ated/saturated (4)
			).7 (27.6in) (3) 4 to 0.7m (15.7 to 27.6in)	(2)		Seasonally inund	ated (2)	
		<(	0.4m (<15.7in) (1) ations to natural hydrologi	ic regime Score	one or double che		ated in upp	er 30cm (12in) (1)
	*		one or none apparent (12		rbances observed	ck and average.		
•		″R	ecovered (7)	ditch		point source (nor	stormwate	r)
			ecovering (3) ecent or no recovery (1)	tile		filling/grading road bed/RR trac	k	
		L''`	oddin of the receivery (1)	weir		dredging	•	
		٦.		stormwat		other		
18	46	Metric	4. Habitat Al	teration a	nd Develo	pment.		
max 20 pts.	subtotal		te disturbance. Score on		c and average.			
			one or none apparent (4) ecovered (3)					
			ecovering (2)					
		4b. Habitat	ecent or no recovery (1) development. Select onli	y one and assign	score.			
			xcellent (7) ery good (6)					
			ood (5)					
			loderately good (4) air (3)					
		P	oor to fair (2)					
			oor (1) alteration. Score one or	double check and	average			
			one or none apparent (9)		rbances observed			
		R	ecovered (6)	mowing		shrub/sapling rer		noval
		R R	ecovering (3) ecent or no recovery (1)	grazing	ing	herbaceous/aqua	ine ped ien	IOVAI
		]		selective	cutting	dredging		
	146			toxic poll	ebris removal lutants	farming nutrient enrichme	ent	
	ubtotal this p	_						
last revised	1 1 Februa	ary 2001 jjm						

Site:		Rater	(s):	Date	
St	Ubtotal first p	j			
0	46	Metric 5. Special Wetlan	ds.		
max 10 pts.	subtotal	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)	
13	59	Metric 6. Plant communi	ties, int	erspersion, microtopog	raphy.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises < 0.1ha (0.2471 acres	s) contiguous area
		Aquatic bed Emergent Shrub	1	Present and either comprises small part of vegetation and is of moderate quality, or	wetland's
		Z Forest	2	significant part but is of low quality	
		Mudflats Open water		Present and either comprises significant pay vegetation and is of moderate quality or of part and is of high quality	
		Other  6b. horizontal (plan view) Interspersion.  Select only one.	3	Present and comprises significant part, or vegetation and is of high quality	more, of wetland's
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predominance of	nonnativo or
		Moderate (3)	1011	disturbance tolerant native species	normative or
		Moderately low (2)	mod	Native spp are dominant component of the	vegetation
		Low (1)		although nonnative and/or disturbance to	lerant native enn
		None (0)		can also be present, and species diversit	v moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o prese	nce of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species, with nor	native spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp ab	
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often,	
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or enda	ngered spp
		Nearly absent <5% cover (0)			
		Absent (1) 6d. Microtopography.		Open Water Class Quality	
		Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres)	
		Vegetated hummucks/tussucks	2	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more	
		5 Standing dead >25cm (10in) dbh		Trigit 4tta (9.00 acres) of filore	
		3 Amphibian breeding pools	Microtopogra	aphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if more common of marginal quality	mon
			2	Present in moderate amounts, but not of hig quality or in small amounts of highest qua	
ra			3	Present in moderate or greater amounts and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

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#### **ORAM Summary Worksheet**

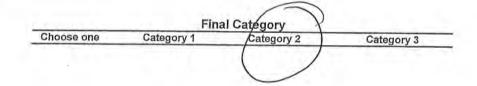
		circle answer or insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (10)	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	3	
,	Metric 2. Buffers and surrounding land use	8	
	Metric 3. Hydrology	17	
	Metric 4. Habitat	18	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	13	
	TOTAL SCORE	59	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

#### 2

## 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 NO	Is quantitative rating score less than the Category 2 scorir 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	(40)	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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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?	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 ecreational functions AND he wetland was not lategorized as a Category 2 yetland (in the case of lategory 3 wetland (in the late	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.



End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

JOHN FREELAND  11-27-2018	
Affiliation: MANNIK & SMITH GROYD	
Address:	1 2 2 2 2
1800 INDIAN WOOD CIRCLE, MANIYEE, OH	43537
Phone Number: (4/9) 891-2222	
e-mail address:  JEREE VAND @ MANNIKSMITHE	POUP COM
Name of Wetland: WIM-028	20017
Vegetation Communit(les):	
HGM Class(es):	
DEPRESSION	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	4.2
SEE ATTACHED LOCATION MAP, FIGURE	4.
2	
Lat/Long or UTM Coordinate	
USGS Quad Name	
USGS Quad Name  County HURON	
USGS Quad Name  County HURON  Township FLAT ROCK T3N, R24W	
County HURON Township FLAT ROCK T3N, R24W Section and Subsection	
USGS Quad Name  County HURON  Township FLAT ROCK T3N, R24W  Section and Subsection  Hydrologic Unit Code 041000/20505	
Township  FLAT ROCK T3N, R24W  Section and Subsection	
County HURON Township FLAT ROCK T3N, R24W Section and Subsection Hydrologic Unit Code 041000120505 Site Visit 9-17-2018 National Wetland Inventory Map	
USGS Quad Name  County HURON  Township FLAT ROCK T3N, R24W  Section and Subsection  Hydrologic Unit Code 041000/20505  Site Visit 9-17-2018  National Wetland Inventory Map  Chio Wetland Inventory Map	
County HURON Township FLAT ROCK T3N, R24W Section and Subsection Hydrologic Unit Code 041000120505 Site Visit 9-17-2018 National Wetland Inventory Map	

oments. Narrative Discussion .lu	istification of Category Ch	ange:	
nments, Narrative Discussion, Ju	ıstification of Category Ch	anges:	
ıments, Narrative Discussion, Ju	ıstification of Category Ch	anges:	
nments, Narrative Discussion, Ju	ustification of Category Ch	anges:	
nments, Narrative Discussion, Ju	ıstification of Category Ch	anges:	
nments, Narrative Discussion, Ju	istification of Category Ch	anges:	
nments, Narrative Discussion, Ju	ustification of Category Ch	anges:	
nments, Narrative Discussion, Ju	ustification of Category Ch	anges:	
nments, Narrative Discussion, Ju	istification of Category Ch	anges:	
nments, Narrative Discussion, Ju	ustification of Category Ch	anges:	
iments, Narrative Discussion, Ju	ustification of Category Ch	anges:	
iments, Narrative Discussion, Ju	istification of Category Ch	anges:	
ıments, Narrative Discussion, Ju	istification of Category Ch	anges:	
ıments, Narrative Discussion, Ju	ustification of Category Ch	anges:	
nments, Narrative Discussion, Ju	istification of Category Ch	anges:	
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#### 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.

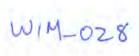
#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. 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.	Yes	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	Wetland should be evaluated for possible Category 3 status	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?	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
	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
	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
	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	NO 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
	"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	NO Go to Question 8b



8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO')
ob	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 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 prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	Go to Question 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	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	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 Myriophyllum spicatum Vajas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 Schechseria 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 canadensi. Calamagrostis stricto Carex atherode. Carex buxbaumi. Carex pellito. Carex sartwelli. Gentiana andrewsi. Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellit

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

WIM-028

48 CATEGORY Z

ORAM v. 5.0 Field Form Quantitative Rating

Site:	A	29 reta	Rater(s):	AEP	Date: 4 //-	7/18
2	2	Metric 1. Wetland A	rea (size).	U	JM-028	
max 6 pts.	subtotal	Select one size class and assign scor  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <2)  10 to <25 acres (4 to <10.1)  3 to <10 acres (1.2 to <4ha  0.3 to <3 acres (0.12 to <1.  0.1 to <0.3 acres (0.04 to < <1.1 to <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) na) (4 pts) I (3 pts) 2ha) (2pts) 0.12ha) (1 pt)	1.61		
-	6	Metric 2. Upland bu	ffers and	surrounding	land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. S  WIDE. Buffers average 501  MEDIUM. Buffers average NARROW. Buffers average VERY LOW. 2nd growth of LOW. Old field (>10 years) MODERATELY HIGH. Res WHIGH. Urban, industrial, op	m (164ft) or more : 25m to <50m (82 e 10m to <25m (3 everage <10m (<3 Select one or do older forest, prair , shrub land, youn idential, fenced pa	around wetland perimet to <164ft) around wetla 2ft to <82ft) around wet 2ft) around wet 2ft) around wetland per buble check and averag ie, savannah, wildlife ar g second growth forest asture, park, conservati	er (7) nd perimeter (4) land perimeter (1) imeter (0) e. rea, etc. (7) . (5) on tillage, new fallow field. (3)	
110	22	Metric 3. Hydrology	-			
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa	ce water (3)		nectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other huma Part of wetland/upland (e.g. forest), c  Part of riparian or upland corridor (1)	omplex (1)
		Perennial surface water (lal 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)    3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)    3e. Modifications to natural hydrological forms and the selection of the sele	ly one and assign (2)	score.	tion inundation/saturation. Score one of Semi- to permanently inundated/satur Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm ( Paverage.	rated (4)
		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)		bances observed	point source (nonstormwater) filling/grading road bed/RR track dredging other	
18	40	Metric 4. Habitat Al	teration a	nd Developm	nent.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)				
		4c. Habitat alteration. Score one or o				
sub last revised 1	ЦО ototal this pa	•	mowing grazing clearcuttir selective	cutting bris removal	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	

- -

Site:		Rate	r(s):	Date:
		7	χ-,-	Duto.
	40			
sı	L ubtotal first p	 lage		
Ó	40	Metric 5. Special Wetlar	nds.	
max 10 pts.	subtotal	Check all that apply and score as indicated.		
		Bog (10)		
		Fen (10) Old growth forest (10)		
		Mature forested wetland (5)		
		Lake Erie coastal/tributary wetland-		
		Lake Erie coastal/tributary wetland-		ology (5)
		Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10)	nings) (10)	
		Known occurrence state/federal thre	eatened or end	angered species (10)
		Significant migratory songbird/water	fowl habitat or	usage (10)
		Category 1 Wetland. See Question		• • •
8	48	Metric 6. Plant commun	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	】 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		Emergent Z Shrub		vegetation and is of moderate quality, or comprises a
		/ Forest	2	significant part but is of low quality  Present and either comprises significant part of wetland's
		Mudflats		vegetation and is of moderate quality or comprises a small
		Open water	-	part and is of high quality
		6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's
		Select only one.		vegetation and is of high quality
		High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)  Moderately low (2)	mod	disturbance tolerant native species
		Low (1)	IIIou	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. Add or deduct points for coverage	high	threatened or endangered spp
		Extensive >75% cover (-5)	nign	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)	<u></u>	the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
		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)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more
		Amphibian breeding pools	Microtopogi	raphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
110				and of highest quality

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	
vaurig	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	. 18	
	Metric 5. Special Wetland Communities		
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	48	Category based on score breakpoints

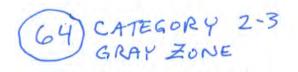
Complete Wetland Categorization Worksheet.

# 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	NÓ	Is quantitative rating score <i>less</i> than the Category 2 scorin threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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?	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 ecreational functions AND he wetland was not extegorized as a Category 2 wetland (in the case of category 3 wetland (in the ase of superior functions) by his 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.

ol.		al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name: JOHN FREELAND	
Date: 11-27-2018	
Affiliation: MANNIK & SMITH GROUP	
Address: 1800 INDIANWOOD CIRCLE, MAUMEE, 014	V3537
Phone Number: (419) 891-222 X 2013	1,000
e-mail address:  JEREELAND @ MANNIKSMITHGR	NUPCOM
Name of Wetland: WIM - 031	.041.007.7
Vegetation Communit(les): PFO, PSS, PEM	
HGM Class(es):  DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE LOCATION MAP, FIGURE 4.	
Lat/Long or UTM Coordinate 41. 21276, -82. 80797	BOENCE HOLES AND BUILDING THE
USGS Quad Name	
County	
TOWNSHIP FLAT ROCK T3N R24W	
Section and Subsection	
Hydrologic Unit Code 04/.000120505	
Site Visit 9 -17-2018	
AND A STATE OF THE AND A STATE O	
National Wetland Inventory Map Ohio Wetland Inventory Map	
AND A STATE OF THE AND A STATE O	

etland Size (acres, hecta			24.00				
etch: Include north arro	w, relationsh	ip with other su	ırface wate	rs, vegetation	zones, etc.		
SEE ATTA	CHED	WETU	AND	DELI	NEATI	ON	MAP.
C				C-20-20-20-20-20-20-20-20-20-20-20-20-20-	A. C.		
FIGURE 4							
ments, Narrative Discus	ssion, Justific	ation of Catego	ory Change	s:			
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ments, Narrative Discus	ssion, Justific	eation of Catego	ory Change	s:			

WIM-032

### 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.	YE5	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

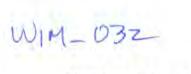
End of Scoring Boundary Determination. Begin Narrative Rating on next page.

W1M-032

### **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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	Wetland should be evaluated for possible Category 3 status	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?	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
	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
	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
	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	NO 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
	projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100	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.	Go to Question 9a
		Go to Question 9a	(2)
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	Oo to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	190
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	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	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	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	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 Myriophyllum spicatum Vajas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium macrocarpon Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi. Calamagrostis stricte Carex atherode. Carex buxbaumi Carex pellite Carex sartwelli Gentiana andrewsi. 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.

WIM. 032

64 CATEGORY Z-3 GRAY ZONE

Site:	f	orm Quantitative Rating	Rater(s):	AEP	Date: 9/17/18
4	4	Metric 1. We	tland Area (size	).	NM-033
max 6 pts.	subtotal	25 to <50 acr 10 to <25 acr 3 to <10 acre 0.3 to <3 acre	20.2ha) (6 pts) es (10.1 to <20.2ha) (5 pts) es (4 to <10.1ha) (4 pts) s (1.2 to <4ha) (3 pts) es (0.12 to <1.2ha) (2pts) cres (0.04 to <0.12ha) (1 pt)	12.94	
4	G	Metric 2. Up	land buffers and	surroundin	g land use.
max 14 pts.	subtotal	WIDE. Buffer MEDIUM. But NARROW. E VERY NARR  2b. Intensity of surroun VERY LOW. LOW. Old fiel MODERATEI WHIGH. Urbar	i, industrial, open pasture, row	e around wetland perir 2 to <164ft) around wo (32ft to <82ft) around wo (32ft) around wotland double check and ave airie, savannah, wildliff ung second growth for pasture, park, consen	meter (7) etland perimeter (4) wetland perimeter (1) perimeter (0) rage. e area, etc. (7) est. (5) vation tillage, new fallow field. (3)
20	28	Metric 3. Hy	drology.		
max 30 pts.	subtotal	Perennial sur 3c. Maximum water de >0.7 (27.6in) 0.4 to 0.7m (** <0.4m (<15.7*)	ndwater (5) water (3) (1) ermittent surface water (3) face water (lake or stream) (5) pth. Select only one and assig (3) 15.7 to 27.6in) (2)	3d. D	onnectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)  uration inundation/saturation. Score one or dbl check  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  Seasonally inundated (2)  Seasonally saturated in upper 30cm (12in) (1)  and average.
		None or none Recovered (7 Recovering ( Recent or no	ditch dile recovery (1) ditch tile dike weir	urbances observed	point source (nonstormwater) filling/grading road bed/RR track dredging other
14	1416	Metric 4. Ha	bitat Alteration a	and Develop	oment.
max 20 pts.	subtotal	None or none Recovered (3 Recovering () Recent or no 4b. Habitat developme Excellent (7) Very good (6 Good (5) Moderately g Fair (3) Poor to fair (2 Poor (1)	2) recovery (1) rt. Select only one and assign  ood (4)	n score.	
		4c. Habitat alteration.	Score one or double check and eapparent (9) Check all dist	d average. urbances observed	
SI	46	Recovered (6 Recovering ( Recent or no	S) mowing 3) grazing recovery (1) clearcut selectiv	iting e cutting debris removal	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

last revised 1 February 2001 jjm

Site:	Rater	r(s):	Date:
su	H botolal first page		
0	Metric 5. Special Wetlar	nds.	
max 10 pts.	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-t Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	restricted hydronings) (10) eatened or end fowl habitat or 1 Qualitative F	angered species (10) r usage (10) Rating (-10)
18	64 Metric 6. Plant commun	ities, int	terspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	/ Emergent	•	vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	2 Forest	2	Present and either comprises significant part of wetland's
	Mudflats		vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.	Ü	
	Select only one.		vegetation and is of high quality
	High (5)	Marrativa D	oppointion of Variation Overlies
	Moderately high(4)		escription of Vegetation Quality
	Moderate (3)	low	Low spp diversity and/or predominance of nonnative or
			disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		
	Absent (1)	Mudflat and	Open Water Class Quality
	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)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh		Tringir that (e.ee acros) of more
	Amphibian breeding pools	Microtopog	raphy Cover Scale
		0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
1.			and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

## 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 <i>less</i> than the Category 2 scorir threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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?	YES  Wetland is assigned to the appropriate category based on the sepring 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 ecreational functions AND he wetland was not eategorized as a Category 2 wetland (in the case of noderate functions) or a Category 3 wetland (in the ease of superior functions) by his 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, 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.

	Fin	al Category	
Choose one	Category 1	Category 2	Category 3
		CARU	ZANIE
		GRITY	ZONL

End of Ohio Rapid Assessment Method for Wetlands.

## **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	
	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	20	
	Metric 4. Habitat	. 18	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	18	
	TOTAL SCORE	1.11	Category based on score breakpoints 2-3 GRAY Zo

Complete Wetland Categorization Worksheet.

WIM-034 27 CATEGORY 1

## **Background Information**

Names	
Name: JOHN FREELAND	
Date: 1/27-2018	
Affiliation:	
Address:	FZM
1800 INDIAN WOOD CIRCLE, MAYMEE, OHIO 43	3 37
Phone Number: (419) 891-2222 X Z013	
e-mail address:  JEREELAND @MANNIKSMITHGROU	Paul
Name of Wetland: WIM - 034	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Vegetation Communit(les):	
HGM Class(es):	
DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, FIGURE	= 4.
	Surt trades de de de de la Charle
Lat/Long or UTM Coordinate 41, 20531, -82.82137	
USGS Quad Name	
County	
HURON	
FLAT ROCK, 13N, REYW	
Section and Subsection	
Hydrologic Unit Code 641000120505	
Site Visit 9-17-2018	
V-V	
National vvetiand inventory map	
National Wetland Inventory Map  Ohio Wetland Inventory Map	
Ohio Wetland Inventory Map	
Ohio Wetland Inventory Map	

		24		
	res, hectares):			
ketch: Include r	north arrow, relationship	with other surface waters, vege	etation zones, etc.	
SEE	ATTACHE	WETLAND	DELINEAT	ION
MAP,	FIGURE	WETLAND 4.		
nments, Narrati	ve Discussion, Justificati	on of Category Changes:		
nments, Narrati	ve Discussion, Justificati	on of Category Changes:		
nments, Narrati	ve Discussion, Justificati	on of Category Changes:		
nments, Narrati	ve Discussion, Justificati	on of Category Changes:		
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nments, Narrati	ive Discussion, Justificati	on of Category Changes:		



### 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.

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Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	0.91 111 121 2 1 2		
	Critical Habitat. Is the welland in a township, section, or subsection 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 plovel has had critical habitat proposed (65 FR 41812 July 6, 2000).	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 contai 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
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
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Go to Question 4 YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 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
	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	NO 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	NO Go to Question 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?	Go to Question 8a YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

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			Contract of the Contract of th
8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
	Matter forested wetaring of 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 (17.7ln) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
9a	an elevation less than 575 feet on the USGS map, adjacent to this	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	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	(NO)
50	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 these dominated by submersed aguatic vegetation.	Go to Question 9d	Go to Question 10
9d	To an the westland have a predominance of native species will ill its	YES	NO
90	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	A Property of the Control of the Con
_	Does the wetland have a predominance of non-native or disturbance	YES	NO
9e	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	_
	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO ·
10	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	to 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,	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
Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Lypha angustifolia Lypha xglauca	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 Rhannus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechseria 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 canadensi Calamagrostis strict Carex atherode Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi. Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellti

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

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ORAM v. 5.0 Field Form Quantitative Rating 1947,000 Rater(s): Site: Metric 1. Wetland Area (size). W/M-029 max 6 pts subtotal Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 6.0577 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3b. Connectivity. Score all that apply. subtotal max 30 pts. 3a. Sources of Water. Score all that apply. 100 year floodplain (1) High pH groundwater (5) Between stream/lake and other human use (1) Other groundwater (3) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) 103 Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) Duration inundation/saturation. Score one or dbl check. 3d. Perennial surface water (lake or stream) (5) Semi- to permanently inundated/saturated (4) Maximum water depth. Select only one and assign score. Regularly inundated/saturated (3) >0.7 (27.6in) (3) Seasonally inundated (2) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally saturated in upper 30cm (12in) (1) <0.4m (<15.7in) (1) Modifications to natural hydrologic regime. Score one or double check and average. Check all disturbances observed None or none apparent (12) point source (nonstormwater) Recovered (7) ditch filling/grading tile Recovering (3) road bed/RR track dike Recent or no recovery (1) dredging weir stormwater input Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. max 20 pts. subtotal Nock risk -See it formed to None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average Check all disturbances observed None or none apparent (9) shrub/sapling removal mowing Recovered (6) herbaceous/aquatic bed removal grazing Recovering (3) sedimentation clearcutting Recent or no recovery (1) selective cutting dredaina woody debris removal farming

toxic pollutants

nutrient enrichment

last revised 1 February 2001 jjm

Site:				Rater	(s):	-	Date:
·				- tato	(0):		Date.
s	25 subtotal first	<b>⊣</b>	etric 5. Special W	/etlan	ıds.		
max 10 pts.	subtotal	∐ Chaa	It all that annih and a constant				
max Tu pts.	suptotal		k all that apply and score as ind Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (8 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies ( Relict Wet Prairies (10) Known occurrence state/fe Significant migratory songl Category 1 Wetland. See	5) wetland-u wetland-r Oak Open ederal thre bird/water Question	estricted hydro nings) (10) atened or end fowl habitat or 1 Qualitative F	angered species (10) usage (10) eating (-10)	
2	27	Ме	tric 6. Plant com	ımuni	ities, int	erspersion, microto	pography.
max 20 pts.	subtotal	6a. W	Vetland Vegetation Communitie	s.	Vegetation	Community Cover Scale	
		Score	all present using 0 to 3 scale.		0	Absent or comprises <0.1ha (0.247	'1 acres) contiguous area
		F	Aquatic bed  Emergent		1	Present and either comprises smal	
		-	Shrub			vegetation and is of moderate qu significant part but is of low qualit	ality, or comprises a
		13	Forest		2	Present and either comprises signi	
			Mudflats		_	vegetation and is of moderate qu	
			Open water			part and is of high quality	
		a. L	Other		3	Present and comprises significant p	part, or more, of wetland's
			orizontal (plan view) Interspersi conly one.	on.		vegetation and is of high quality	
		Select	High (5)		Narrative D	escription of Vegetation Quality	
		<u> </u>	Moderately high(4)		low	Low spp diversity and/or predomina	ance of nonnative or
			Moderate (3)			disturbance tolerant native specie	es
			Moderately low (2)		mod	Native spp are dominant componer	
		12	Low (1)			although nonnative and/or disturb	
		6c C	fNone (0) overage of invasive plants. Ref	for		can also be present, and species	
		to Tab	le 1 ORAM long form for list. A	dd.		moderately high, but generally whether threatened or endangered spp	o presence of rare
			uct points for coverage		high	A predominance of native species,	with nonnative spp
			Extensive >75% cover (-5)			and/or disturbance tolerant native	
			Moderate 25-75% cover (-3	5)		absent, and high spp diversity and	
		4	Sparse 5-25% cover (-1) Nearly absent <5% cover (0	n :		the presence of rare, threatened,	or endangered spp
		>	Absent (1)	יי	Mudflat and	Open Water Class Quality	
		6d. Mi	crotopography.		0	Absent <0.1ha (0.247 acres)	
			all present using 0 to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47 acre	s)
		10	Vegetated hummucks/tussu		2	Moderate 1 to <4ha (2.47 to 9.88 a	cres)
		1	Coarse woody debris >15cr		3	High 4ha (9.88 acres) or more	
			<ul><li>Standing dead &gt;25cm (10in</li><li>Amphibian breeding pools</li></ul>	y apri	Microtopogr	aphy Cover Scale	
		L	*		0	Absent	
					1	Present very small amounts or if mo	re common
						of marginal quality	
					2	Present in moderate amounts, but n	
					3	quality or in small amounts of high Present in moderate or greater amo	
					3	and of highest quality	นาแจ

End of Quantitative Rating. Complete Categorization Worksheets.

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## **ORAM Summary Worksheet**

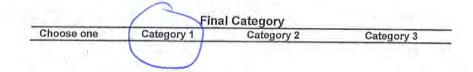
		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If 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	racional de la composition della composition del
Kating	Metric 2. Buffers and surrounding land use	Ĭ	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	× ×	
	Metric 5. Special Wetland Communities		
M	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	27	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

#### 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 scorin 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	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 exategorized as a Category 2 wetland (in the case of noderate functions) or a Category 3 wetland (in the case of superior functions) by his method?	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.



End of Ohio Rapid Assessment Method for Wetlands.

WIM-037/038



## **Background Information**

Name: JOHN FREELAND	
Date: 11-77-2018	
Affiliation: MANNIK & SMITH GROUP	
A distance of	1EE 04 113
Phone Number: ( ) Phone Number:	
(419) 89/-2722 × 20/3	
JEREELAND & MANNIKSMITH 6	ROUP. Com
Name of Wetland: WIM-037/038	
Vegetation Communit(les):	
HGM Class(es):  DE PRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP FI	GURE 4.
	40.30
*	
	n and a state of a state of the
Lat/Long or UTM Coordinate (4/.14382, -82.83309) (41,14369, -8	2.82845
USGS Quad Name	
County	
Township FLAT ROCK TZN, RZYW	
Section and Subsection	
Hydrologic Unit Code 041000120503	
014-1/1-14	
1-18-6018	
National Wetland Inventory Map	
National Wetland Inventory Map  Ohio Wetland Inventory Map	
National Wetland Inventory Map  Ohio Wetland Inventory Map	
National Wetland Inventory Map  Chio Wetland Inventory Map	

otland Cine /gara	0011-	037/	038			
etianu Size (acres				getation zones, etc.	_ = <	
etch: Include no	rth arrow, relationsh	nip with other s	surface waters, ve	getation zones, etc.		
OSE	1-1-1-11	/	- Tra-11	NELIALE	Atmal	
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WIM- 037/038

### 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 welland. 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.

4	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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	I objects	
		Circle one	0
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).	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?	Wetland is a Category 3 wetland.  Go to Question 3	Go to Question 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
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Go to Question 4 YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 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
	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	NO 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	Go to Question 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.	Go to Question 9a
		Go to Question 9a	
	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES YES	(NO)
9a	an elevation less than 575 feet on the USGS map, adjacent to this	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	Go to Question 90
		Go to Question 10	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
9u	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
	The second secon	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 \
10	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	Se to Question 11
	type of wetland and its quality.	L VIII D	NO
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 stricte Carex atherodes Carex buxbaumin Carex pellita Carex sartwelli Gentiana andrewsin Helianthus grosseserratus Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

WIM \_037/038 ORAM v. 5.0 Field Form Quantitative Rating Rater(s): Site: 14% LOG Metric 1. Wetland Area (size). max 6 pts Select one size class and assign score. 37=0.129 >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) X VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3b. Connectivity. Score all that apply. max 30 pts. subtotal 3a. Sources of Water. Score all that apply. 100 year floodplain (1) High pH groundwater (5) Between stream/lake and other human use (1) Other groundwater (3) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Part of riparian or upland corridor (1) Seasonal/Intermittent surface water (3) Duration inundation/saturation. Score one or dbl check. Perennial surface water (lake or stream) (5) 3d. Semi- to permanently inundated/saturated (4) Maximum water depth. Select only one and assign score. Regularly inundated/saturated (3) >0.7 (27.6in) (3) Seasonally inundated (2) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally saturated in upper 30cm (12in) (1) 了<0.4m (<15.7in) (1) Modifications to natural hydrologic regime. Score one or double cheek and average. Check all disturbances observed None or none apparent (12) point source (nonstormwater) Recovered (7) ditch filling/grading Recovering (3) ₹tile road bed/RR track dike Recent or no recovery (1) dredging weir stormwater input Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. subtotal None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. 4b. Excellent (7)

Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. Check all disturbances observed None or none apparent (9) shrub/sapling removal mowing Recovered (6) herbaceous/aquatic bed removal grazing Recovering (3) sedimentation Recent or no recovery (1) clearcutting

selective cutting

toxic pollutants

woody debris removal

dredging farming

nutrient enrichment

last revised 1 February 2001 jjm

Site:	Dot	er(s):	Deter
0.00.	INAL	CI (5).	Date:
SI	ubtotal first page		
0	Metric 5. Special Wetla	ands.	
max 10 pts.	subtotal 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	d-unrestricted hyd	drology (10)
	Lake Erie coastal/tributary wetlan	d-restricted hydro	ology (5)
	Lake Plain Sand Prairies (Oak Or	penings) (10)	
	Relict Wet Prairies (10)		
	Known occurrence state/federal to Significant migratory songbird/wa	ter fowl habitat or	angered species (10)
	Category 1 Wetland. See Question	on 1 Qualitative R	Rating (-10)
3			erspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent		vegetation and is of moderate quality, or comprises a
	Shrub Forest		significant part but is of low quality
	Mudflats	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality .
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one. High (5)	Marrativa Da	an avintian of Variately and Carella
	Moderately high(4)	low	escription of Vegetation Quality  Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1) None (0)		although nonnative and/or disturbance tolerant native spp
	6c. Coverage of invasive plants. Refer	-	can also be present, and species diversity moderate to
	to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not always,
	Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
	Absent (1)	Mudflat and	Open Water Class Quality
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	<u>2</u> 	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh		riigit 4tta (9.86 acres) of more
	Amphibian breeding pools	Microtopogr	aphy Cover Scale
		0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
,,			and of highest quality

16.5

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-037/038

# **ORAM Summary Worksheet**

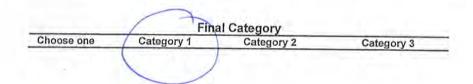
		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, 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		
kaung	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	8	
	Metric 4. Habitat	.3.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	3	
	TOTAL SCORE	16.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

#### 5

# Wetland Categorization Worksheet

Choices	Circle one	6	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	1	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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 oriteria 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 ecreational functions AND he wetland was not eategorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by his method?	YES  Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Welfand 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.



End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

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Date: 11-78-2018
Affiliation: MANNIK SMITH GROUP
Address:
Address:  [800 INDIAN WOOD CIRCLE, MAMMEE, OH 43537]  Phone Number:
(419) 891-222 X 20/3
e-mail address: TEREE LAND a) MANNIKSMITH GROUP, COM
Name of Wetland:
Vegetation Communit(les):
HGM Class(es): DEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate 41, 14054, -82, 82/02
USGS Quad Name
County
HURON
Township FLAT ROCK TZN, R24W
Section and Subsection /
Hydrologic Unit Code 04(000 12050 3
9-19-2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SOIL SURVEY OF HURON COUNTY, 01410
Delineation report/map  ATTACHED

remains electron income	ares):	7		
Vetland Size (acres, hecta	ucoj.	2.06 ACR	ers, vegetation zones, etc.	
SEE ATTAI	OUT A	. 15	DELINEATION	
	-HED	NETLAND	DELINEATION	MAT,
FIGURE 4				
1-1100	*			
- Noveth Di-	1			
mments, Narrative Discus	ssion, Justifica	ation of Category Change	es:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	98:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	es:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	es:	
nments, Narrative Discus	ssion, Justifica	ation of Category Chang	es:	
mments, Narrative Discus	ssion, Justifica	ation of Category Chang	<b>98:</b>	
mments, Narrative Discus	ssion, Justifica	ation of Category Chang	es:	
πments, Narrative Discus	ssion, Justifica	ation of Category Chang	9 <b>s</b> :	
mments, Narrative Discus	ssion, Justifica	ation of Category Chang	es:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	9S:	
mments, Narrative Discus	ssion, Justifica	ation of Category Chang	es:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	98:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	9S:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	es:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	98:	
mments, Narrative Discus	ssion, Justifica	ation of Category Change	9S:	

### 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.	YES	
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.	YES	
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.	YES	·
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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

WIM-042

### 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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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			
1	Critical Habitat. Is the wetland in a township, section, or subsection 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 plove has had critical habitat proposed (65 FR 41812 July 6, 2000).	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 conta	in YES	(O)
3	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	_
3	Documented High Quality Wetland. Is the wetland on record in	YES	(VO)
	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
	Significant Breeding or Concentration Area. Does the wetland	Go to Question 4 YES	1
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland  Co to Question 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?	Wetland is a Category 1 wetland Go to Question 6	_ o to Question 6
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no		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	Go to Question 7
	Fens. Is the wetland a carbon accumulating (peat, 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 invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland	Go to Question 8a
	"Old Growth Forest." Is the wetland a forested wetland and is the	Go to Question 8a	1
	forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?		NO 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 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	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth	YES Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	NO
9d	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
	(O-1) On onlings) is the wetland located in	YES	NO) ·
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	Wetland is a Category 3 wetland.  Go to Question 11	Go to Question 11
	Natural Areas and Preserves can provide assistance in confirming this		
11	type of wetland and its quality.  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	NO Complete Quantitative Rating
	-	Rating	

Table 1. Characteristic plant species.

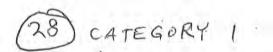
invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegans var. glaucus Cacalia 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 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 canadensi Calamagrostis stricte Carex atherode. Carex buxbaumi Carex pellite Carex sartwelli Gentiana andrewsi. Helianihus 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.

Site:	Rate	er(s):	Date:
	23 al first page		, i
	Metric 5. Special Wetla	ınds.	
In the second of the second	ubtotal Check all that apply and score as indicated.		
	Bog (10)		
	Fen (10) Old growth forest (10)		
	Mature forested wetland (5)		
	Lake Erie coastal/tributary wetland		
	Lake Erie coastal/tributary wetland Lake Plain Sand Prairies (Oak Op		rology (5)
	Relict Wet Prairies (10)	ogo, (1-0)	
	Known occurrence state/federal th		
	Significant migratory songbird/wate Category 1 Wetland. See Questio		
			그렇게 바다 하나 하는 것이 되는 사람이 없는 사람이 없다는 것이 없다고 있다. 그리고 있는 것이 없다는 것이 없다는 것이 없다는 것이 없다면
C -	8   Wietric 6. Plant commun	nities, in	terspersion, microtopography.
~	ibtotal 6a. Wetland Vegetation Communities.	Vocatatio	n Community Cover Scale
max 20 pts. ou	Score all present using 0 to 3 scale.	vegetatio.	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent		vegetation and is of moderate quality, or comprises a
	Shrub	- 0	significant part but is of low quality
	/ Forest Mudflats	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	<ol><li>6b. horizontal (plan view) Interspersion.</li></ol>		vegetation and is of high quality
	Select only one. High (5)	Narrative I	Description of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
	None (0) 6c. Coverage of Invasive plants. Refer	*	moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)	A	the presented of fairs, infractioned, or offeringered opp
	X Absent (1)	Mudflat and	Open Water Class Quality
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	1 2	Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh	P. DOM	
	Amphibian breeding pools		aphy Cover Scale
		0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest
			quality or in small amounts of highest quality
		3	Present in moderate or greater amounts

ł

End of Quantitative Rating. Complete Categorization Worksheets.



ORAM v. 5.0 Field Form Quantitative Rating

Site:	Wir	1-04	2		Rater(s):	JAF		Date:	9/19/2018
2	2	Metr	ic 1.	Wetland	Area (size	).	4		e.
max 6 pts.	subtote	Select o	>50 acr 25 to <5 10 to <2 3 to <10 0.3 to <:	5 acres (4 to < acres (1.2 to < acres (0.12 to	pts) 0 <20.2ha) (5 pts) 10.1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts) to <0.12ha) (1 pt)	2.2	06		÷.
7	4	Metr				surrour	nding land us	se.	
max 14.pts,	subtotal	2b. Inter	WIDE. I MEDIUM NARRO VERY N Isity of sui VERY LO LOW. O MODER, HIGH. L	Buffers average I. Buffers avera W. Buffers avera ARROW. Buffe rounding land L DW. 2nd growth d field (>10 yea ATELY HIGH. I rban, industrial,	50m (164ft) or more age 25m to <50m (8) rage 10m to <25m (9) rage 10m to <25m (9) rs average <10m (< 100 roller forest, pragas), shrub land, you Residential, fenced popen pasture, rowe	around wetlan 2 to <164ft) arous 32ft to <82ft) arous 32ft) around wet double check ar irie, savannah, ng second grov pasture, park, co	und wetland perimeter (cound wetland perimeter of that perimeter (0) and average. wildlife area, etc. (7) with forest. (5)	4) (1)	
11	15	Metri	c 3, 1	Hydrolog	ıy.				2
max 30 pts.	subtotal	3c. Maxim	High pH some of the precipitate	Intermittent sur surface water ( depth. Select in) (3) n (15.7 to 27.6i 5.7in) (1) natural hydrolo	face water (3) lake or stream) (5) only one and assign n) (2) gic regime. Score c	score.	Part of wetlan Part of ripariar Duration inundation Semi- to perm Regularly inun Seasonally inu Seasonally sat eck and average.	Iplain (1) Im/lake and other Id/upland (e.g. for In or upland corrid Id saturation. Score In an other In undated In dated/saturated (	rest); complex (1) for (1) e one or dbl check. d/saturated (4) (3)
		*	Recovere Recoverin	1 (7)	2) Check all distur ditch tile dike weir stormwate		point source (n filling/grading road bed/RR tr dredging other	ack	
8	23	Metri	4. F	labitat A	Iteration ar	nd Devel			
nax 20 pts.	subtotal	F	None or no Recovered	ne apparent (4) (3)	ne or double check a	and average.		*	
		4b. Habitat	developn xcellent (7 ery good lood (5) loderately	no recovery (1) nent. Select on () (6)	y one and assign so	ore."	, ,	*	"" +
		P	air (3) oor to fair oor (1) alteration.		double check and av	erage.			. Y
subto	23 otal this page	N Ri	one or nor ecovered ecovering	ne apparent (9) (6)	Check all disturbation mowing grazing clearcutting selective cu woody debritoxic polluta	nces observed ting s removal	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal	

# **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.
8.4	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NÓ)	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	Metric 1. Size	2	
Rating	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	28	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 scorin 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	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 assesments 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).
coes the wetland otherwise exhibit moderate OR superior ydrologic OR habitat, OR ecreational functions AND ne wetland was not ategorized as a Category 2 retland (in the case of noderate functions) or a sategory 3 wetland (in the case of superior functions) by its method?	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.

01	7	al Category	
Choose one	/ Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name: JOHN FREELAND
Date: 11-27-2018
Affiliation:
Address:
Phone Number:
(419) 891-2222 X 2013
e-mail address: JEREELAND @MANNIKSMITHGROUP.CU
Name of Wetland: WIM - 043
Vegetation Communit(les):
HGM Class(es):  DEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate 4/ 13 780 93 87 170
4/.13780, -82.82170 USGS Quad Name
County
Township Township
Township FLAT ROCK TZN RZYW Section and Subsection
Ludwig and Helit Code
091000120303
9-19-2018
National Wetland Inventory Map
Dhio Wetland Inventory Map
Soil Survey SOIL SURVEY OF HURON COUNTY, OH
Delineation report/map  ATTACHED

	-043		
Wetland Size (acres, hectares): Sketch: Include north arrow, relation	0,07	getation zones, etc.	
Action of the state of the stat	HED WETLAND		1 + 10 - 1
		Decimen	1700
MAP, FIGU	1RE 4.		
mments, Narrative Discussion, Jus	stification of Category Changes:		
mments, Narrative Discussion, Jus	stification of Category Changes:		
mments, Narrative Discussion, Jus	stification of Category Changes:		
mments, Narrative Discussion, Jus	stification of Category Changes:		
mments, Narrative Discussion, Jus	stification of Category Changes:		
mments, Narrative Discussion, Jus	stification of Category Changes:		
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mments, Narrative Discussion, Jus	stification of Category Changes:		
mments, Narrative Discussion, Jus	stification of Category Changes:		
omments, Narrative Discussion, Jus	stification of Category Changes:		
omments, Narrative Discussion, Jus	stification of Category Changes:		

### 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.	YES	
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.	YE S	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	Cirolo or -	
1		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).	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?	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	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 Go to Question 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
	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	NO 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
	"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	NO Go to Question 8b

	A A	orm Quantitative Rating		A = 0	Data aliat
Site:	A	B32000\	Rater(s):	TEP	Date: 4//9/
		Metric 1. Wetla	and Area (size)		
0	0	INIGUIC I. WELIC	aliu Alea (Size)	/ <b>-</b>	NIM-043
max 6 pts.	subtotal	Select one size class and a		$\lor$	111111111111111111111111111111111111111
		25 to <50 acres (	10.1 to <20.2ha) (5 pts)		
		10 to <25 acres (4)	1 to <10.1ha) (4 pts) 2 to <4ha) (3 pts)	A A A Apparent	
		0.3 to <3 acres (0	.12 to <1.2ha) (2pts)	6.065	
	Name	0.1 to <0.3 acres <0.1 acres (0.04h	(0.04 to <0.12ha) (1 pt) a) (0 pts)		
)	1	Metric 2. Uplai	nd buffers and	surroundir	ng land use.
/		_		_	
max 14 pts.	subtotal	2a. Calculate average buffe	erage 50m (164ft) or more	e around wetland peri	imeter (7)
		MEDIUM, Buffers	s average 25m to <50m (8) rs average 10m to <25m (	2 to <164ft) around w	vetland perimeter (4)
		VERY NARROW.	Buffers average <10m (<	32ft) around wetland	perimeter (0)
		2b. Intensity of surrounding	land use. Select one or ogrowth or older forest, pra	double check and ave iirie, savannah, wildlif	∍rage. fe area, etc. (7)
		LOW. Old field (>	10 years), shrub land, you	ing second growth foi	rest. (5)
		HIGH. Urban, inc	lustrial, open pasture, row	cropping, mining, cor	rvation tillage, new fallow field. (3) nstruction. (1)
<b>,</b> [	17	Metric 3. Hydre	ology.		
1(	12			a. a	D. W. W. O. and H. H. at another
max 30 pts.	subtotal	3a. Sources of Water. Sco High pH groundw	re all that apply. ater (5)	3b. C	Connectivity. Score all that apply.  100 year floodplain (1)
		Other groundwate Precipitation (1)		-	Between stream/lake and other human us Part of wetland/upland (e.g. forest), compl
		Seasonal/Intermit	tent surface water (3)	į.	Part of riparian or upland corridor (1)
		Perennial surface 3c. Maximum water depth.	water (lake or stream) (5) Select only one and assig	-	Duration inundation/saturation. Score one or db Semi- to permanently inundated/saturated
		>0.7 (27.6in) (3)		Ţ	Regularly inundated/saturated (3) Seasonally inundated (2)
		0.4 to 0.7m (15.7 <0.4m (<15.7in) (	1)	Í	Seasonally saturated in upper 30cm (12in
		3e. Modifications to natural			and average.
		Recovered (7)	parent (12) Check all distribution	Troances observed	point source (nonstormwater)
		Recovering (3) Recent or no reco	tile overv (1) dike		filling/grading road bed/RR track
		TREGETIE OF HOTEOC	weir		dredging
		7		ater input	other
3	15	Metric 4. Habi	tat Alteration a	and Develop	pment.
max 20 pts.	subtotal	<b>]</b> 4a. <u>Subs</u> trate disturbance.	Score one or double chec	k and average.	
		None or none app Recovered (3)			
		Recovering (2)			
		Recent or no reco		score.	
		Excellent (7)			
		Very good (6) Good (5)			
		Moderately good Fair (3)	(4)		
		Poor to fair (2)			
		Poor (1) 4c. Habitat alteration. Sco	re one or double check and	d average.	
		None or none app	parent (9) Check all dist	urbances observed	
		Recovered (6) Recovering (3)	mowing grazing	-	shrub/sapling removal herbaceous/aquatic bed removal
		_i	L 9' \(\sigma_{-11} \)	L	·

clearcutting selective cutting woody debris removal toxic pollutants

dredging farming nutrient enrichment

subtotal this page last revised 1 February 2001 jjm

15

Site: Rat	er(s):	Date:
	.01(0)1	Date.
subtotal first page		
O 15 Metric 5. Special Wetla		
max 10 pts. subtotal Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlar Lake Erie coastal/tributary wetlar Lake Plain Sand Prairies (Oak O Relict Wet Prairies (10) Known occurrence state/federal t	nd-unrestricted hy nd-restricted hydro penings) (10)	plogy (5)
Significant migratory songbird/wa	iter fowl habitat o	rusage (10)
Category 1 Wetland. See Questi  Metric 6. Plant commu		terspersion, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed  Emergent	1	Present and either comprises small part of wetland's
Shrub		vegetation and is of moderate quality, or comprises a significant part but is of low quality
Forest	2	Present and either comprises significant part of wetland's
Mudflats		vegetation and is of moderate quality or comprises a small
Open water		part and is of high quality
Other	3	Present and comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality
High (5)	Narrative D	escription of Vegetation Quality
Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
Moderate (3)		disturbance tolerant native species
Moderately low (2)	mod	Native spp are dominant component of the vegetation,
Low (1)		although nonnative and/or disturbance tolerant native spp
None (0)  6c. Coverage of invasive plants. Refer		can also be present, and species diversity moderate to
to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare threatened or endangered spp
or deduct points for coverage	high	A predominance of native species, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
Absent (1)	Mudflat and	Open Water Class Quality
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)
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cm (6in)  Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more
Amphibian breeding pools	Microtopoa	raphy Cover Scale
<del></del>	0	Absent
	1	Present very small amounts or if more common of marginal quality
	2	Present in moderate amounts, but not of highest
		quality or in small amounts of highest quality
	3	Present in moderate or greater amounts and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

W1M-043

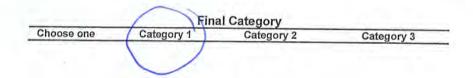
# **ORAM Summary Worksheet**

		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	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	Metric 1. Size	0	
Rating	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	1	
	Metric 4. Habitat	. 3	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	17	Category based on score breakpoints

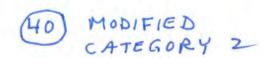
Complete Wetland Categorization Worksheet.

# 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 <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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	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		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	<b>€</b>	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).
coes the wetland otherwise whibit moderate OR superior ydrologic OR habitat, OR ecreational functions AND ne wetland was not attegorized as a Category 2 retland (in the case of loderate functions) or a lategory 3 wetland (in the lase of superior functions) by is method?	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, 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.



End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name: JOHN FREELAND	
Date: 11-27-2018	
Affiliation: MANNIK SMITH GROUP	
Address:	100 A 100 S = 10
1800 INDIAN WOOD CIRCLE, MAUMEE,	, 01+ 43537
Phone Number: (4/9) 891-2222 X 20/3	
e-mail address:  JFREELAND @ MANNIKSMI	THEROUP.CO
Name of Wetland: WIM - 044	
Vegetation Communit(les):	
HGM Class(es):	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP,	FIGURE
	1
Lat/Long or UTM Coordinate	
USGS Quad Name	
County It uren	
Township	
Section and Subsection	
Hydrologic Unit Code	
Site Visit	
olle viole	
9-19-2018	
National Wetland Inventory Map	
9-19-2018	
National Wetland Inventory Map  Ohio Wetland Inventory Map	
National Wetland Inventory Map  Dhio Wetland Inventory Map  Soil Survey	

Name of Wetland: WIM _ 044	
Wetland Size (acres, hectares): 2,23 4 CRE	G
Sketch: Include north arrow, relationship with other surface waters, v	regetation zones, etc.
and the second s	
SEE ATTACHED WETLA	ND DELINEATION
MAP, FIGURE 4.	
comments Narrative Discussion Justification of Category Changes:	
omments, Narrative Discussion, Justification of Category Changes:	
omments, Narrative Discussion, Justification of Category Changes:	
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omments, Narrative Discussion, Justification of Category Changes:	
omments, Narrative Discussion, Justification of Category Changes:	
omments, Narrative Discussion, Justification of Category Changes:	
omments, Narrative Discussion, Justification of Category Changes:	
omments, Narrative Discussion, Justification of Category Changes:	Category: Modified 2

WIM\_044

### 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.

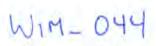
#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	W
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. 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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YE5	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	Wetland should be evaluated for possible Category 3 status	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?	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
	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
	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
	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	NO 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	Go to Question 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
	the state of the s	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	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	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	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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon 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 canadensi. Calamagrostis strictic Carex atherode. Carex buxbaumi Carex pellitic Carex sartwelli. Gentiana andrewsi. Helianthus grosseserratus Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

DRAM v. 5.0 Field F	Form Quantitative Rating			9/19/18
Site:	H 650 4000	Rater(s):	ACY	Date: // 1/10
max 6 pts. subtotal	10 to <25 acres (4 t 3 to <10 acres (1.2 0.3 to <3 acres (0.1	ign score. ) (6 pts) .1 to <20.2ha) (5 pts) o <10.1ha) (4 pts) to <4ha) (3 pts)	2.23	WM-044
Т	<0.1 acres (0.04ha)	(0 pts)	aurraunding	land usa
7 9	Metric 2. Uplan	a pumers and	surrounding	ianu use.
max 14 pts. subtotal	MEDIUM. Buffers a NARROW. Buffers VERY NARROW. E Intensity of surrounding la VERY LOW. 2nd g LOW. Old field (>1) MODERATELY HIGH. Urban, indus	rage 50m (164ft) or more average 25m to <50m (8) average 10m to <25m (8) guffers average <10m ( <a href="https://www.nc.gov/end/use.">https://www.nc.gov/end/use.</a> Select one or crowth or older forest, pra 0 years), shrub land, you GH. Residential, fenced strial, open pasture, row	e around wetland perimete 2 to <164ft) around wetlar (32ft to <82ft) around wetl 32ft) around wetland peri double check and average irie, savannah, wildlife are ing second growth forest.	er (7) nd perimeter (4) and perimeter (1) meter (0) e. ea, etc. (7) (5) on tillage, new fallow field. (3)
10 19	Metric 3. Hydro	logy.		
max 30 pts. subtotal	3a. Sources of Water. Score High pH groundwate Other groundwater Precipitation (1) Seasonal/Intermitte Perennial surface w 3c. Maximum water depth. S >0.7 (27.6in) (3) .0.4 to 0.7m (15.7 to <0.4m (<15.7in) (1) 3e. Modifications to natural h	er (5) (3)  Int surface water (3) Vater (lake or stream) (5) Valect only one and assign (27.6in) (2)	3d. Durat n score.	ectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use ( Part of wetland/upland (e.g. forest), complex Part of riparian or upland corridor (1) ion inundation/saturation. Score one or dbl c Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) ( average.
		rent (12) Check all distribution ditch tile dike weir		point source (nonstormwater) filling/grading road bed/RR track dredging other
12 31	Metric 4. Habita	at Alteration a	and Developm	ient.
max 20 pts. subtotal	None or none appa Recovered (3) Recovering (2) Recent or no recove 4b. Habitat development. Se Excellent (7)	rent (4) ery (1)		
5	Very good (6) Good (5) Moderately good (4 Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score	one or double check and	d average.	
4	None or none appa Recovered (6) Recovering (3)	rent (9) Check all distr mowing grazing	urbances observed	shrub/sapling removal herbaceous/aquatic bed removal sedimentation

last revised 1 February 2001 jjm

Site:	Rate	r(s):	Date:
s	3 l ubtotal first page		
ð	3   Metric 5. Special Wetlar	nds.	
max 10 pts.	Subtotal Check all that apply and score as indicated.  Bog (10)		
	Fen (10)		
	Old growth forest (10)  Mature forested wetland (5)		
	Lake Erie coastal/tributary wetland-u	unrestricted hy	rdrology (10)
	Lake Erie coastal/tributary wetland-		
	Lake Plain Sand Prairies (Oak Oper	nings) (10)	
	Relict Wet Prairies (10) Known occurrence state/federal thre	otopod or one	languard analise (40)
	Significant migratory songbird/water	fowl habitat o	rusage (10)
	Category 1 Wetland. See Question	1 Qualitative I	Rating (-10)
9	Metric 6. Plant commun	ities, in	terspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent	1	Present and either comprises small part of wetland's
	Shrub		vegetation and is of moderate quality, or comprises a significant part but is of low quality
	2 Forest	2	Present and either comprises significant part of wetland's
	Mudflats		vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Other6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's
	Select only one.		vegetation and is of high quality
	High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2) Low (1)	mod	Native spp are dominant component of the vegetation,
	None (0)		although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
•	6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually
	Sparse 5-25% cover (-3)	Ŧ	absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		ine presence of rare, threatened, or endangered spp
	Absent (1)	Mudflat and	l Open Water Class Quality
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more
	/- Standing dead >25cm (10in) dbh		Tright that (5.00 acres) of more
	/ Amphibian breeding pools	Microtopog	raphy Cover Scale
		0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest
			quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
.			and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-044

## **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	
vaung	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	10	
	Metric 4. Habitat	.12	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	9	
	TOTAL SCORE	40	Category based on score breakpoints  MODIFIED 2

Complete Wetland Categorization Worksheet.

#### 2

# 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 <i>less</i> than the Category 2 scorin threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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 his 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: JOHN FREELAND
Date: 11-27-2018
Affiliation: MANNIK SMITH GROUP
Address:
Phone Number: (419) 891-2222 X Z013
e-mail address: JFREELAND @ MANNIKSMITHGROUP. COI
Name of Wetland: WIM-045
Vegetation Communit(ies):
HGM Class(es): DEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate 41, 13748 - 82, 83003
USGS Quad Name
County
TOWNSHIP FLAT ROCK TZN, RZYW
Section and Subsection
Hydrologic Unit Code 0 4/000120503
Site Visit 9 - 20 - 20 18
National Wetland Inventory Map
Ohio Wetland Inventory Map
SOIL SURVEY OF HURON COUNTY, 01410
Delineation report/map  ATTACHED

ame of Wetland:	M-045			
/etland Size (acres, hectares):	1,33			
ketch: Include north arrow, rela	ationship with oth	er surface waters, vegetatio	on zones, etc.	
		WETLAND	DELINE	EATION
MAP, FIG	4 RE	4,		
nments, Narrative Discussion,	Justification of C	ategory Changes:		
nments, Narrative Discussion,	Justification of C	ategory Changes:		
nments, Narrative Discussion,	Justification of C	ategory Changes:		
nments, Narrative Discussion,	Justification of C	ategory Changes:		
nments, Narrative Discussion,	Justification of C	ategory Changes:		
nments, Narrative Discussion,	Justification of C	ategory Changes:		
nments, Narrative Discussion,	Justification of C	ategory Changes:		

WIM-045

### 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.

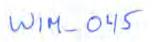
#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	į
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. 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.	YES	
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.	YE5	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	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
	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
	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
	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	NO 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	Go to Question 8a
	projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100	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.  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	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	Go to Question 9c
	The state of the s	Go to Question 10	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	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	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	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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegains 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 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 Schechseria 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 canadensi Calamagrostis stricte Carex atherode. Carex buxbaumi Carex pellite Carex sartwelli Gentiana andrewsi Helianthus grosseserratu. 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.

M_045		IODIFIED CA	IEGORY.	Personal Property Company
ORAM v. 5.0 Field I Site:	Form Quantitative Rating	Rater(s):	A=10	Date: Q A l
/	76 1650		Tital	1/40/1
2 2	Metric 1. Wet	and Area (size)	<b>5</b>	
max 6 pts. subtotal	>50 acres (>20. 25 to <50 acres 10 to <25 acres 3 to <10 acres ( 0.3 to <3 acres		1.337	MM-645
	<0.1 acres (0.04		surrounding l	and use.
4 6			_	
max 14 pts. subtotal	WIDE. Buffers a MEDIUM. Buffe NARROW. Buff VERY NARROW  2b. Intensity of surroundir VERY LOW. 2r  X LOW. Old field MODERATELY	ffer width. Select only one ar average 50m (164ft) or more ers average 25m to <50m (82 fers average 10m to <25m (3 V. Buffers average <10m (<3 ng land use. Select one or d d growth or older forest, prain (>10 years), shrub land, your HIGH. Residential, fenced p ndustrial, open pasture, row c	around wetland perimeter to <164ft) around wetland 32ft to <82ft) around wetland 32ft) around wetland perimouble check and average. rie, savannah, wildlife areang second growth forest. (asture, park, conservation	(7) If perimeter (4) Ind perimeter (1) Indeter (0) Indeter (0) Indeter (7) Indeter (7) Indeter (7) Indeter (8) Indeter (9) Indeter (1) Ind
8 14	Metric 3. Hyd	rology.		
max 30 pts. subtotal	High pH ground Other groundwa Precipitation (1) Seasonal/Interm Perennial surfaction (27.6in) (3) 0.4 to 0.7m (15.7in) 3e. Modifications to natural	water (5) ter (3) hittent surface water (3) he water (lake or stream) (5) h. Select only one and assign to 27.6in) (2) (1) hydrologic regime. Score o	3d. Duration	ctivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use Part of wetland/upland (e.g. forest), completed in the properties of riparian or upland corridor (1) in inundation/saturation. Score one or dbl of Semi- to permanently inundated/saturated (Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (Inverage.
	None or none at Recovered (7) Recovering (3) Recent or no rec	ditch		point source (nonstormwater) illing/grading oad bed/RR track dredging other
13 2	Metric 4. Hab	itat Alteration a	nd Developme	ent.
max 20 pts. subtotal	None or none approximately Recovered (3) Recovering (2) Recent or no recent approximately Recovering (2) Recent or no recent approximately Recovering (2) Recovering (3) Recovering (2) Recovering (3) Recovering (2) Recovering (3) Recovering (4) Re	covery (1) Select only one and assign s		
		ore one or double check and		
27	None or none approximately Recovered (6) Recovering (3) Recent or no rec	mowing grazing clearcutting selective	ng cutting ebris removal	shrub/sapling removal nerbaceous/aquatic bed removal dedimentation dredging arming arming nutrient enrichment

last revised 1 February 2001 jjm

Site:	Rater	r(s):	Date:
s	ubtotal first page		
0	Metric 5. Special Wetlar	nds.	
max 10 pts.	Subtotal  Check all that apply and score as indicated.  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland (5)  Lake Erie coastal/tributary wetland-lake Erie coastal/tributary wetland-lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10)  Known occurrence state/federal thre  Significant migratory songbird/water  Category 1 Wetland. See Question	restricted hydronings) (10) eatened or end fowl habitat o 1 Qualitative F	ology (5) langered species (10) r usage (10) Rating (-10)
1(	Metric 6. Plant commun	ities, int	terspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Seels
. 1	Score all present using 0 to 3 scale.	vegetation 0	Community Cover Scale Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent	,	vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	Z Forest	2	Present and either comprises significant part of wetland's
	Mudflats		vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one.		
	High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation.
	Low (1)		although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)	Ŭ	and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudflat and	I Open Water Class Quality
	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)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh		Tright 4ha (9.66 acres) of more
	Z Amphibian breeding pools	Microtopea	raphy Cover Scale
		0	Absent
		1	Present very small amounts or if more common
		1	of marginal quality
		2	Present in moderate amounts, but not of highest
		4	quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
		J	and of highest quality
38			1 a.r. o. Highloot quanty
20			

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 Lating	Metric 1. Size	2	
vaing	Metric 2. Buffers and surrounding land use	Н	
	Metric 3. Hydrology	8	
	Metric 4. Habitat	. 13	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography		
	TOTAL SCORE	27	Category based on score breakpoints  MODIFIED 2

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 <i>less</i> than the Category 2 scorir threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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 ecreational functions AND he wetland was not eategorized as a Category 2 wetland (in the case of noderate functions) or a category 3 wetland (in the ase of superior functions) by his method?	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, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.	

Final Category				
Choose one	Category 1	Category 2	Category 3	
		MODIFIED		

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

	WIM-	046		
/etland Size (acre	s, hectares):	2.31		
ketch: Include no	rth arrow, relations	hip with other surface water	s, vegetation zones, etc.	
SEE A+	+ACIICA		Saland Mark	
300 141	THEATED	WETLAND	DELINEATION	MAP
FIGUR	FU		DELINEATION	
	<i>-</i> 7.			
nments, Narrativ	e Discussion, Justif	ication of Category Changes	s:	
	Ţ.			
al score :	Ť		Category: M	

WIM-046

### 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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	Celtical Habitat Is the surfley in the state of the state	2.100(0.0110)	-
	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).	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?	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
	Significant Breeding or Concentration Area. Does the wetland	YES 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
	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
	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	NO 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
	"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	NO Go to Question 8b

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES  Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
	All the second s	Go to Question 9a	6
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	NO Ge to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	Go to Question 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	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	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	YES	(NO)
10	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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 Schechseria 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. Calamogrostis strictoc Carex atherodes. Carex buxbaumi. Carex pellitoc Carex sartwelli. Gentiana andrewsis. Helianthus grosseserratus Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

NIM-046 (33) MODIFIED	
ORAM v. 5.0 Field Form Quantitative Rating	)
Site: Rater(s):	Date: 9/10//8
2 2 Metric 1. Wetland Area (size).	$(N)(M-O4)_{p}$
Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)	•
Metric 2. Upland buffers and surrou	nding land use.
max 14 pts. subtotal  2a. Calculate average buffer width. Select only one and assign sco  WIDE. Buffers average 50m (164ft) or more around wetla  MEDIUM. Buffers average 25m to <50m (82 to <164ft) ar  NARROW. Buffers average 10m to <25m (32ft to <82ft) average 10m to <25m (32ft to <82ft) average 10m (32ft) around wetla  VERY NARROW. Buffers average <10m (<32ft) around wetla  VERY LOW. 2nd growth or older forest, prairie, savannamed LOW. Old field (>10 years), shrub land, young second growth or older forest prairie, savannamed LOW. Old field (>10 years), shrub land, young second growth or logical process of the pro	and perimeter (7) ound wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0) and average. n, wildlife area, etc. (7) owth forest. (5) conservation tillage, new fallow field. (3)
7   13   Metric 3. Hydrology.	
max 30 pts. subtotal  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. Score one or double Recovered (7)  Recovered (7)  Recovering (3)  Recent or no recovery (1)  Recommand that apply.  High pH groundwater (5)  Other groundwater (3)  Percipitation (1)  Seasonal/Intermittent surface water (12)  None or none apparent (12)  Recovering (3)  Recovering (3)	
Metric 4. Habitat Alteration and Dev	velopment.
max 20 pts. subtotal  4a. Substrate disturbance. Score one or double check and average None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6)  Check all disturbances observed.	ervedshrub/sapling removal
Recovering (3) Recent or no recovery (1)  Subtotal this page  Recovering (3) Recent or no recovery (1) Recent or no recovery (1) Subtotal this page	herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

last revised 1 February 2001 jjm

Site:	Rater	(s):	Date:
s ()	ubtotal first page  23  Metric 5. Special Wetlar	nds.	,
max 10 pts.	subtotal Check all that apply and score as indicated.		
	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-t Lake Erie coastal/tributary wetland-r Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydr nings) (10) eatened or end fowl habitat o 1 Qualitative I	dangered species (10) r usage (10) Rating (-10)
12	Metric 6. Plant commun	ities, in	terspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
	∠ Forest	2	Present and either comprises significant part of wetland's
	Mudflats		vegetation and is of moderate quality or comprises a small
	Open water	-	part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality
	High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add or deduct points for coverage	<del></del>	threatened or endangered spp
	Extensive >75% cover (-5)	high	A predominance of native species, with nonnative spp
	Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually
	Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		the presence of fale, threatened, or endangered spp
	Absent (1)	Mudflat and	Open Water Class Quality
	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)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more
	Amphibian breeding pools	Microtonea	raphy Cover Scale
	Light service and position	0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
7 5-			and of highest quality

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	
Kaurig	Metric 2. Buffers and surrounding land use	Ч	ATE STATE
	Metric 3. Hydrology	7	
	Metric 4. Habitat	. 10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography		Category based on score
	TOTAL SCORE	35	breakpoints  MODIFIED 2

Complete Wetland Categorization Worksheet.

# Wetland Categorization Worksheet

Choices	Circle one	Mark C	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 <i>less</i> than the Category 2 scorir threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745–1-54(C) and biological and/or functional assessments to determine if the wetland has been 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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?  ModiFIED	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 ecreational functions AND he wetland was not extegorized as a Category 2 evetland (in the case of noderate functions) or a category 3 wetland (in the case of superior functions) by his 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, 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

Date:
11-27-20/8 Affiliation:
MANNIK & SMITH GROUP
1800 INDIANWOOD CIRCLE, MAUMEE, OH 43537
Phone Number: (419) 891-2222 × 2013
e-mail address: JEREELAND @ MANNIKSMITHGROUP. COM
Name of Wetland: WIM - 049
Vegetation Communit(les): PFO PEM
HGM Class(es): DEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP FIGURE 4.
Lat/Long or UTM Coordinate 4/, 13 448, -82, 83 0 0 4
Lat/Long or UTM Coordinate 4/, 13448, -82, 83004 USGS Quad Name
USGS Quad Name  County
USGS Quad Name  County  Huron
USGS Quad Name  County  Huron
USGS Quad Name  County  Hyron  Township  FLAT Rock T2N, R24W  Section and Subsection
USGS Quad Name  County  HyRON  Township  FLAT ROCK T2N, R24W  Section and Subsection  Hydrologic Unit Code  041000120503
USGS Quad Name  County  Huron  Township  FLAT Rock T2N, R24W  Section and Subsection  Hydrologic Unit Code  041000120503
USGS Quad Name  County  HuRoN  Township  FLAT ROCK T2N, R24W  Section and Subsection  Hydrologic Unit Code  041000120503  Site Visit  9-20-2018
USGS Quad Name  County  HuRoN  Township  FLAT ROCK T2N, R24W  Section and Subsection  Hydrologic Unit Code  041000120503  Site Visit  9-20-2018  National Wetland Inventory Map

etland Size (acres, hectares):	DIEMPA		
etland Size (acres, hectares): cetch: Include north arrow, relationsh	ip with other surface waters	, vegetation zones, etc.	_
and the Continuous and a second	* Vinesia Control Physical Metabolic		
	15 710.10	DEL LOVE A TION	
SEE ATTACHED	WEISTNO	DELINEATION	MAI
6 - 0 - 11			
FIGURE 4.			
ments, Narrative Discussion, Justific	cation of Category Changes:		
		d d	
	,		
	7		
	,		
	7		
	,		

### 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.

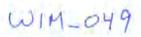
#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. 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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 or	5 1973 S. RESE	NO
	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	Wetland should be evaluated for possible Category 3 status	Go to Question
	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	
	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	
	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES	(NÓ)
		Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	0
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding	YES	NO )
	waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland	Go to Question 5
-	O. A. W. H. L. L. H. H. L. L. H. L. L. H. L.	Go to Question 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
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	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%?	Wetland is a Category 3 wetland	Go to Question 7
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	Go to Question 7	
	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)	YES Wetland is a Category	NO Go to Question 8a
	and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	3 wetland	
Ì	"Old Growth Forest." Is the wetland a forested wetland and is the	Go to Question 8a YES	NO
	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	Wetland is a Category 3 wetland.	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	



		A STATE OF THE STA	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
	and the second of	Go to Question 9a	NO
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	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	Go to Question 9c
		Go to Question 10	(NO)
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	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	Go to Question 11
11	Relict Wetland and its quality.  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.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Palaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharls 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 Nemopanihus 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 canadensi Calamagrostis canadensi Carex atherode. Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi. 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.

Site:		Rater	r(s):	Date:
0	37 subtotal first p	Metric 5. Special Wetlan	ıds.	
max 10 pts.	subtotal	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-L	unrestricted hyd	drology (10)
		Lake Erie coastal/tributary wetland-r Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro nings) (10) atened or enda fowl habitat or	angered species (10) usage (10)
10	47	Metric 6. Plant communi	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1 -	Present and either comprises small part of wetland's
		Emergent		vegetation and is of moderate quality, or comprises a
	3	Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.	<del></del>	
		High (5)	Narrative De	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	_	Moderato (3)	1011	disturbance tolerant native species
	7	Moderately low (2)	mod	
	C	Low (1)	mod	Native spp are dominant component of the vegetation,
		None (0)		although nonnative and/or disturbance tolerant native spp
		6c. Coverage of invasive plants. Refer		can also be present, and species diversity moderate to
		to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare
		or deduct points for coverage	- L1 L	threatened or endangered spp
			high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
	4	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)	** 10	
		Absent (1)		Open Water Class Quality
		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)
		/ Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	$\alpha$	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	5	/ Standing dead >25cm (10in) dbh		
		/ Amphibian breeding pools		aphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common
				of marginal quality
			2	Present in moderate amounts, but not of highest
				quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
1				and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

W14-049

## **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 (IO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
reading	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	9	
	Metric 4. Habitat	13	ident som sta
	Metric 5. Special Wetland Communities		
	Metric 6. Plant communities, interspersion, microtopography	10	
	TOTAL SCORE	47	Category based on score breakpoints

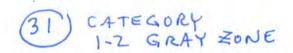
Complete Wetland Categorization Worksheet.

### 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?	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 ecreational functions AND he wetland was not attegorized as a Category 2 vetland (in the case of hoderate functions) or a category 3 wetland (in the ase of superior functions) by his 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, 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	Cotonomia	Catanana
Choose one	Category	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

Name: JOHN FREELAND	
Date: 11-27-2018	
Affiliation: MANNIK SMITH GROUP	
Address:	
Phone Number:	
$(419)$ 891-2222 $\times$ 2013	
e-mail address:  JFREELAND @ MANNIK SMITH GK	204P. Com
Name of Wetland: WIM- 050	
Vegetation Communit(ies):  P∈ M	
HGM Class(es): DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	1 4
SEE ATTACHED LOCATION MAP, FIGURE	4-
	A Demonstrative of the American Manager
Lat/Long or UTM Coordinate 41, 13426, -82.82938	
USGS Quad Name	
County	
Township Township	
Section and Subsection  Touriship  FLAT ROCK T2N, R29W	
Hydrologic Unit Code	
O 4 1 0 0 0 1 2 0 5 0 3  Site Visit	
9 - Z0 - Z018	
National Wetland Inventory Map	
National Wetland Inventory Map  Ohio Wetland Inventory Map	
National Wetland Inventory Map	

ame of Wetland: WIM _	050		
etland Size (acres, hectares): cetch: Include north arrow, relationsh	0.04		
etch: Include north arrow, relationsh	ip with other surface waters,	vegetation zones, etc.	
SEE ATTACHEN	WETLANIA	DELINEATION	
		De en i	
MAP, FIGURE	. /		
TIGURE	7-		
ments, Narrative Discussion, Justific	ation of Category Changes:		
ments, Narrative Discussion, Justific	ation of Category Changes:		
ments, Narrative Discussion, Justific	ation of Category Changes:		
ments, Narrative Discussion, Justific	ation of Category Changes:		
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#### 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.

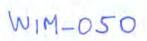
м	Steps in properly establishing scoring boundaries	done?	not applicable
# Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. 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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 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 (60 CFR 17.95(a)) and the piping ploves has had critical habitat proposed (65 FR 41812 July 6, 2000).	Wetland should be evaluated for possible Category 3 status	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contai 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
	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
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Go to Question 4 YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 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
	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	NO 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
	"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	NO Go to Question 8b



8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES  Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	NO
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	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	Go to Question 9c
		Go to Question 10	1
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	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	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 4	Characteristic t	alant enacion
lable I.	Guaracteristic t	Diant Species.

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 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 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium macrocarpon Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi. Calamagrostis stricte Carex atherode. Carex buxbaumi Carex pellite Carex sartwelli. Gentiana andrewsi. Helianthus grosseserratus Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

ORAM v. 5	.0 Field F	orm Quantitative F	Rating	IM DZ	U			1
Site:	A	390001		Rater(s):	AEP		Date:	9/20/18
0	0	Metric 1.	Wetland A	rea (size).	(3)	CATEGO	DAY	ZUNE
max 6 pts.	subtotal	>50 ac 25 to ° 10 to ° 3 to ° 0.3 to 0.1 to	class and assign score cres (>20.2ha) (6 pts) class of the core (10.1 to <20 class cres (4 to <10.1 to <40 class cres (1.2 to <4ha) class cres (0.12 to <1.2 class cres (0.04 to <0 cres (0.04ha) (0 pts)	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts) 0.12ha) (1 pt)	6.040			State to the transfer
12	12		_			ng land use.		
max 14 pts.	subtotal	WIDE. MEDIL NARR VERY  2b. Intensity of s VERY LOW. MODE HIGH.	NARROW. Buffers a surrounding land use. LOW. 2nd growth or Old field (>10 years), ERATELY HIGH. Res Urban, industrial, op	n (164ft) or more a 25m to <50m (82 to 10m to <25m (32 verage <10m (<32 Select one or do older forest, prairie , shrub land, young idential, fenced pa en pasture, row cre	round wetland per o <164ft) around vetland to ft to <82ft) around ft) around wetland uble check and aven, swidt e, savannah, wildt second growth for sture, park, conse	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. ife area, etc. (7) prest. (5) prevation tillage, new fallow	ν field. (3)	
10	22	Metric 3.	Hydrology	•				
max 30 pts.	subtotal	High p Other Precip Seaso Peren 3c. Maximum w >0.7 (0 0.4 to	Water. Score all that and groundwater (5) groundwater (3) itation (1) mal/Intermittent surfactinial surface water (lawater depth. Select on 27.6in) (3) 0.7m (15.7 to 27.6in) (<15.7in) (1) s to natural hydrologic	ce water (3) te or stream) (5) ly one and assign s	3d. score.	Connectivity. Score all ti 100 year floodplai Between stream/la Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundate Seasonally inundate Seasonally satura k and average.	n (1)/ ake and other aland (e.g. for upland corrid aration. Score ntly inundated ed/saturated ated (2)	rest), complex (1) for (1) e one or dbl check. d/saturated (4) (3)
		None Recov Recov	or none apparent (12) vered (7) vering (3) tt or no recovery (1)		ances observed	point source (nons filling/grading road bed/RR track dredging other		_
10	28	Metric 4.	Habitat Alt	teration ar	nd Develo	pment.		
max 20 pts.	subtotal	None Recover R	ately good (4) 3) o fair (2) 1) ation. Score one or c	one and assign so	core. verage.			
	28 subtotal this p	Recov Recov Recer	or none apparent (9) vered (6) vering (3) nt or no recovery (1)	mowing grazing clearcuttin selective c	utting oris removal	shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmen	tic bed remov	<i>r</i> al

Site:			Rater(s):	Date:
		7	(0):	Date.
SI	28 ubtotal first p	2019		
0	28	Metric 5. Special W	etlands.	
max 10 pts.	subtotal	Check all that apply and score as indi-	cated.	
		Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5)		
		Lake Erie coastal/tributary v	etland-restricted hydro	drology (10) ology (5)
		Lake Plain Sand Prairies (O Relict Wet Prairies (10)	ak Openings) (10)	
		Known occurrence state/fed	eral threatened or enda	angered species (10)
		Significant migratory songbi	rd/water fowl habitat or	usage (10)
		Category 1 Wetland. See C		
3		Wethe 6. Plant Com	numues, int	erspersion, microtopography.
max 20 pts.	subtotal	I 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		Emergent		vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Mudflats Open water		vegetation and is of moderate quality or comprises a small
		Open water Other		part and is of high quality
		6b. horizontal (plan view) Interspersion	3	Present and comprises significant part, or more, of wetland's
		Select only one.	l	vegetation and is of high quality
		High (5)	Narrative De	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refe		moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. Ad		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
		Absent (1)	Mudflat and	Open Water Class Quality
		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)
		(b) Vegetated hummucks/tussuc		Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm		High 4ha (9.88 acres) or more
		Standing dead >25cm (10in)	dbh	
		Amphibian breeding pools	<u>Microtopogr</u>	aphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
71				and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.



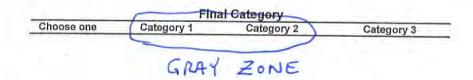
# **ORAM Summary Worksheet**

		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	
caurig	Metric 2. Buffers and surrounding land use	17-	
	Metric 3. Hydrology	10	
	Metric 4. Habitat	. 6	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	31	Category based on score breakpoints I-Z GRAY Zo N

Complete Wetland Categorization Worksheet.

## Wetland Categorization Worksheet

Choices	Circle one	0	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 <i>less</i> than the Category 2 scorin threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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?	YES  Wetland is assigned to the appropriate category based on the scoring range	Mod	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 ecreational functions AND he wetland was not extegorized as a Category 2 evetland (in the case of anoderate functions) or a category 3 wetland (in the case of superior functions) by his 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.



End of Ohio Rapid Assessment Method for Wetlands.

WIM\_051



## **Background Information**

Name: JOHN FREELAND
Date: 11-27-2018
Affiliation: MANNIK SMITH GROUP
Address
Phone Number: (110) 09/ 7777 X 2017
e-mail address: (4/9) 89/- 2222 × 20/3
JEREELAND WANNIKSMITHGROUP. CO
Name of Wetland: WIM - 05/
Vegetation Communit(ies):  PFO, PSS, PEM
HGM Class(es):  DEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate
41.1321/, -82.82112
USGS Quad Name
County
Township FLAT ROCK TZN, RZYW
Section and Subsection
Hydrologic Unit Code 04/000
Site Visit 9-29-20/8
National Wetland Inventory Map
National vvettaria inventory intep
Ohio Wetland Inventory Map

Vetland Size (acres, hectares): 3.17 ACRES  ketch: Include north arrow, relationship with other surface waters, vegetat		
ketch: Include north arrow, relationship with other surface waters, vegetat	ion zones etc	
The second secon	3011 201103, 010.	
SEE ATTACHEN WETLONG	2-11-1-	1
JEE MITHER WE TUAND	DECINE	4716NU
MAP FICURE 11		
MAP, FIGURE 4.		
The commence of the contract o		
nments, Narrative Discussion, Justification of Category Changes:		
н		

WIM\_051

### 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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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			
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).	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
	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
	Significant Breeding or Concentration Area. Does the wetland	Go to Question 4 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
	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
	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
	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
	"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.  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 Go to Question 9b	NO Go to Question 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 prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	Go to Question 9c
	Andready to the state of the st	Go to Question 10	0
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	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	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

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 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 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 Calamogrostis stricta Carex atherodes Carex buxbaumii Carex sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

	WIM .05/			/	/
	.0 Field Form Quantitative Rating		A	9/29	9(18
Site:	K genord	Rater(s):	AEP	Date:	
max.6.pts.	Select one size class and ass >50 acres (>20.2ha 25 to <50 acres (10 to <25 acres (41 to <2	sign score. a) (6 pts) 0.1 to <20.2ha) (5 pts)		WIM-651	
<b></b>	3 to <10 acres (1.2 0.3 to <3 acres (0. 0.1 to <0.3 acres (0. <0.1 acres (0.04ha	to <4ha) (3 pts) 12 to <1.2ha) (2pts) 0.04 to <0.12ha) (1 pt) ) (0 pts)	3.17 1.703888	September 1	EGOR
9	Metric 2. Uplan	d buffers and	surroundin	g land use.	
max 14 pts.	MEDIUM. Buffers NARROW. Buffers VERY NARROW. 2b. Intensity of surrounding I VERY LOW. 2nd g LOW. Old field (>1 MODERATELY HI	erage 50m (164ft) or more average 25m to <50m (82 s average 10m to <25m (5 Buffers average <10m (<5 and use. Select one or d growth or older forest, prai (0 years), shrub land, your	around wetland periment to <164ft) around we sauft to <82ft) around we sauft to <82ft) around wetland pouble check and averie, savannah, wildlifeing second growth fore sasture, park, conserved.	neter (7) tland perimeter (4) - vetland perimeter (1) vertimeter (0) age. area, etc. (7) sst. (5) ation tillage, new fallow field. (3)	
10	Metric 3. Hydro	ology.			
max 30 pts.	subtotal  3a. Sources of Water. Score High pH groundwa Other groundwater Precipitation (1) Seasonal/Intermitte Perennial surface of Sc. Maximum water depth. Solon (27.6in) (3) Solon (30.7 (27.6in) (3) Solon (30.7 (27.6in) (1) Solon (30.7 (30.7 (30.4 (3	ter (5) (3)  ent surface water (3) water (lake or stream) (5) Select only one and assign to 27.6in) (2) hydrologic regime. Score (arent (12)) Check all distu	3d. Dun score.  one or double check arbances observed	nnectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other hum Part of wetland/upland (e.g. forest), Part of riparian or upland corridor (1 ration inundation/saturation. Score one Semi- to permanently inundated/sat Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm average.  point source (nonstormwater) filling/grading road bed/RR track dredging other	complex (1) ) e or dbl check urated (4)
12	्य Metric 4. Habit	at Alteration a	nd Develop	ment.	
max 20 pts.	subtotal  4a. Substrate disturbance. Some or none apparaments of the substrate disturbance. Some or none apparaments of the substrate disturbance. Some or none apparaments of the substrate development or no recover.  4b. Habitat development. Some of the substrate disturbance. Some of the substrate disturbance disturbance. Some of the substrate disturbance disturbance disturbance disturbance. Some of the substrate disturbance disturbance disturbance disturbance disturbance. Some of the substrate disturbance disturbance disturbance disturbance disturbance disturbance disturbance. Some of the substrate disturbance distu	arent (4) very (1) elect only one and assign	score.		
s	4c. Habitat alteration. Score  None or none appa Recovered (6) Recovering (3) Recent or no recovered this page	cery (1)  Check all distured mowing grazing clearcutting selective	rbances observed ing cutting ebris removal	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	

last revised 1 February 2001 jjm

Site:		Dota	r/o).		TB (
Oite.		Rate	er(s):		Date:
max 10 pts.	34 ubtotal first p	Metric 5. Special Wetla	nds.		
пах то різ.	Subtotal	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland Lake Erie coastal/tributary wetland Lake Plain Sand Prairies (Oak Ope Relict Wet Prairies (10) Known occurrence state/federal th Significant migratory songbird/wate Category 1 Wetland. See Questio	I-restricted hydro enings) (10) reatened or enda er fowl habitat or	angered species (10) usage (10)	
14	48	Metric 6. Plant commun	nities, int	erspersion, microto	ppography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	
		Aquatic bed Temergent Shrub	1	Present and either comprises small vegetation and is of moderate q significant part but is of low qua	uality, or comprises a
		7 Forest Mudflats Open water	2	Present and either comprises sign vegetation and is of moderate q part and is of high quality	nificant part of wetland's
		Other	3	Present and comprises significant	
		6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality	
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predomir	nance of nonnative or
		Moderate (3)	·	disturbance tolerant native spec	ies
		Moderately low (2)	mod	Native spp are dominant compone	
		Low (1) None (0)		although nonnative and/or distur	
		6c. Coverage of invasive plants. Refer		can also be present, and specie moderately high, but generally w	
		to Table 1 ORAM long form for list. Add		threatened or endangered spp	no produtide of fare
		or deduct points for coverage	high	A predominance of native species	, with nonnative spp
		Extensive >75% cover (-5)  Moderate 25-75% cover (-3)		and/or disturbance tolerant nativ	e spp absent or virtually
		Sparse 5-25% cover (-1)		absent, and high spp diversity ar the presence of rare, threatened	nd oπen, but not always,
		Nearly absent <5% cover (0)		T and production of fairs, tringationed	, or critaingered 3pp
		Absent (1)	Mudflat and	Open Water Class Quality	
		6d. Microtopography.  Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres)	
		Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.47 acr Moderate 1 to <4ha (2.47 to 9.88	
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	acres)
		Standing dead >25cm (10in) dbh			
		/ Amphibian breeding pools		aphy Cover Scale	
			0	Absent	
				Present very small amounts or if m of marginal quality	
			2	Present in moderate amounts, but quality or in small amounts of hig	hest quality
			3	Present in moderate or greater am	ounts
110/			-	and of highest quality	· · · · · · · · · · · · · · · · · · ·

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-051

## **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	3	
tating	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	10	
	Metric 4. Habitat	.12	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	14	
	TOTAL SCORE	48	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 <i>less</i> 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?	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 ecreational functions AND he wetland was not extegorized as a Category 2 evetland (in the case of noderate functions) or a Category 3 wetland (in the case of superior functions) by his method?	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, 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:	
JOHN FREELAND	
Date: 11-27-2018	
Affiliation	
MANNIK SMITH GROUP	A. Lines
1800 INDIANWOOD CIRCLE, MAUMEE	OH 43537
Phone Number: (419) 891-2222 × 2013	
-mail address: JFREELAND @ MANNIKSMITH	161204P, cox
Name of Wetland: WIM-052	
regetation Communit(les):	
IGM Class(es):  DEPRESSIONAL	
ocation of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE LOCATION MAP, FIGURE 4.	
	110
	SAME AND ADDRESS OF
t/Long or UTM Coordinate 41. 18095, -82.77932	
GGS Quad Name	
oos quad Name	
ounty	
HURON	
WISHIP FLAT ROCK T3N, RZYW	
ction and Subsection	
ction and Subsection	
drologic Unit Code	
00100011722	
041000120503	
1.0	
9-71-2018	
tional Wetland Inventory Map	
tional Wetland Inventory Map  io Wetland Inventory Map	
tional Wetland Inventory Map  io Wetland Inventory Map  Il Survey  SOIL SURVEY OF HURON COUNTY, OHIO	
ional Wetland Inventory Map  o Wetland Inventory Map	

Name of Wetland: WIN_052	
Wetland Size (acres, hectares): 14.00	
Sketch: Include north arrow, relationship with other surface waters, vegetation zo	nes, etc.
SEE ATTACHED WETLAND DE	LINEATION
MAP, FIGURE 4.	And the second second
MAR, FIGURE 4.	
	+
omments, Narrative Discussion, Justification of Category Changes:	
	9
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u u	4
•	

Category:

Final score:

36

W1M-052

### 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.

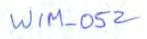
#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. 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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	Wetland should be evaluated for possible Category 3 status	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?	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	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	NO Go to Question 5
74	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
1	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
	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
	"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	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	
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
	in the declarical influence	Go to Question 10 YES	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	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	YES	NO)
10	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	(NO)
44	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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium macrocarpon Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi. Calamagrostis stricte Carex atherode. Carex buxbaumi Carex pellite Carex sartwelli. Gentiana andrewsi. 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.

WIM-052-ORAM v. 5.0 Field Form Quantitative Rating Rater(s): 141 WW Site: Metric 1. Wetland Area (size). subtotal Select one size class and assign score. max 6 ots >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VÉRY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3b. Connectivity. Score all that apply. 3a. Sources of Water. Score all that apply. subtotal 100 year floodplain (1) High pH groundwater (5) Between stream/lake and other human use (1) Other groundwater (3) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Part of riparian or upland corridor (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or dbl check. Semi- to permanently inundated/saturated (4) Maximum water depth. Select only one and assign score. Regularly inundated/saturated (3) >0.7 (27.6in) (3) Seasonally inundated (2) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally saturated in upper 30cm (12in) (1) <0.4m (<15.7in) (1) Modifications to natural hydrologic regime. Score one or double check and average Check all disturbances observed None or none apparent (12) point source (nonstormwater) ditch Recovered (7) filling/grading tile Recovering (3) road bed/RR track Recent or no recovery (1) dike dredging weir stormwater input other Metric 4. Habitat Alteration and Development. 28 Substrate disturbance. Score one or double check and average. subtotal None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. 4b. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. Check all disturbances observed None or none apparent (9) shrub/sapling removal Recovered (6) mowing herbaceous/aquatic bed removal Recovering (3) grazing clearcutting sedimentation Recent or no recovery (1) selective cutting dredging woody debris removal farming nutrient enrichment toxic pollutants

last revised 1 February 2001 jjm

Site:	1000		Rater(s):	Date:
0	28 subtotal first	Metric 5. Special W	etlands.	
max 10 pts.	subtotal	Check all that apply and score as indices and the second s	vetland-unrestricted hydrovetland-restricted hydrovetland-restricted hydrovetland-restricted hydrovetland (10)  eral threatened or endord/water fowl habitat or endotustion 1 Qualitative R	angered species (10) usage (10) tating (-10)
8	36	Metric 6. Plant com	munities, int	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
•		Shrub		significant part but is of low quality
<		2 Forest	2	Present and either comprises significant part of wetland's
, i		Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion	າ	vegetation and is of high quality
		Select only one.		
		High (5)		escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2) Low (1)	mod	Native spp are dominant component of the vegetation,
		None (0)		although nonnative and/or disturbance tolerant native spp
		6c. Coverage of invasive plants. Refe		can also be present, and species diversity moderate to
		to Table 1 ORAM long form for list. Ad	d d	moderately high, but generally w/o presence of rare
		or deduct points for coverage	high	threatened or endangered spp
		Extensive >75% cover (-5)	High	A predominance of native species, with nonnative spp
		Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		and processes of faire, uncutorica, or chalangered spp
		Absent (1)		Open Water Class Quality
		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)
		Vegetated hummucks/tussuc		Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm	` '	High 4ha (9.88 acres) or more
		Standing dead >25cm (10in)		
		Amphibian breeding pools		aphy Cover Scale
		•	0	Absent
			1	Present very small amounts or if more common
		•		of marginal quality
			2	Present in moderate amounts, but not of highest
				quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
-				and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-052

## **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	
Nating	Metric 2. Buffers and surrounding land use	5	<b>建建设设施</b>
	Metric 3. Hydrology	7	
	Metric 4. Habitat	. 12	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	36	Category based on score breakpoints  MoDIFIED 2

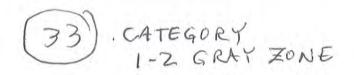
Complete Wetland Categorization Worksheet.

## 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 <i>less</i> than the Category 2 scorin 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?  MODIFIED	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 ecreational functions AND he wetland was not eategorized as a Category 2 vetland (in the case of noderate functions) or a category 3 wetland (in the ase of superior functions) by his 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 blotic 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	al Category Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name: JOHN FREELAND	
Date: 11-28-2018	
Affiliation:  MANNIK SMITH GROUP	
Address:	37
1900 INDIAN WOOD CIRCLE, MAUMEE, OH 433.  Phone Number: (419) 891- ZZZZ X 2013	
e-mail address: JFREE LAND @ MANNIKSMITHGROUP.	com
Name of Wetland: WIM - 058	
Vegetation Communit(ies):	
HGM Class(es):  RIVERINE DERRESSIONAL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
Location of Wetland: Include map, address, nórth arrow, landmarks, distances, roads, etc.	
_at/Long or UTM Coordinate 4/. 1/662, -82.849/3	
Pounts	
14 a RON	
cection and Subsection TERTON, T2N, R17E	
Ludralagia Hait Cada	
041000120302	
lational Wetland Inventory Map	
hio Wetland Inventory Map	
all Current	
Delineation report/map  ATTACHED	

etland Size (acres, hectares):	58	
etland Size (acres, hectares):	2.35	
etch: Include north arrow, relationship w	ith other surface waters, ve	egetation zones, etc.
CEE 110		
SEE ATTACHED MAP, FIGURE	WETLAND	DELINEATION
MAP. FIGURE	4	
, TIGUEL	7,	
ments, Narrative Discussion, Justificatio	on of Category Changes:	
		*
	0	
42		
+4		

Category:

Final score:

33

#### 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.	YES	
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.	YES	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are configuous 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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical		NO	
	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 plove has had critical habitat proposed (65 FR 41812 July 6, 2000)	evaluated for possible Category 3 status er Go to Question 2	1.25	
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?		Wetland is a Category 3 wetland.	ry 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	NO Go to Question 4	
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding	3 wetland  Go to Question 4  YES	NO	
waterfowl, neotropical songbird, or shorebird concentration areas?		Wetland is a Category 3 wetland Go to Question 5	Go to Question 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	
	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	NO 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%?	Wetland is a Category 3 wetland	NO Go to Question 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?		So 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	YES Wetland should be	NO Go to Question 9a
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	evaluated for possible	Go to Question sa
	diameters greater than 450th (17.7th) don:	Category 3 status.	
		Go to Question 9a	
	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
9a	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?	Go to Question 9b YES	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	1EO	140
	partially hydrologically restricted from Lake Erie due to lakeward or	Wetland should be	Go to Question 9c
	landward dikes or other hydrological controls?	evaluated for possible Category 3 status	
		Go to Question 10	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland	YES	NO
	border alterations) or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	l "optuaring" wetland with lake and river influenced hydrology. These		
	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	Wetland is a Category	Go to Question 9e
	native species can also be present?	3 wetland	Co to Quodion ou
		0 1 0 212 10	
	Does the wetland have a predominance of non-native or disturbance	Go to Question 10 YES	NO
9e	tolerant native plant species within its vegetation communities?		
	loloful Management	Wetland should be evaluated for possible	Go to Question 10
	, ,	Category 3 status	
	(O. L. O) Is the wetland located in	Go to Question 10 YES	(NO)
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be		
	characterized by the following description: the wetland has a sandy	Wetland is a Category	Go to Question 11
	substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	3 wetland.	
	gramineous vegetation listed in Table 1 (woody species may also be	Go to Question 11	
	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	Polict 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	Wetland should be	Complete
	were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion	evaluated for possible	Quantitative
	Counties), porthwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Complete Quantitative	
	Montgomery, Van Wert etc.).	Rating	

Table 1. Characteristic plant species.

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 Cacalia plantaginea Carex flava Carex sterilis Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Ertophorum 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 canadensi. Calamogrostis stricta Carex atherode. Carex buxbaumi. Carex pelliti. Carex sartwelli. Gentiana andrewsi. Helianthus grosseserratus Liatris spicata Lystimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthiaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

33) CATEGORY 1-2 GRAY ZONE

ORAM v. 5.0 Field Form Quantitative Rating

Site:	WII	4-058	Rater(s):	JAF	Date:	9-21-18
2	2	Metric 1. Wet	and Area (size).			٠.
max 6 pts.	subtotal	>50 acres (>20. 25 to <50 acres 10 to <25 acres 3 to <10 acres ( 0.3 to <3 acres	2ha) (6 pts) (10.1 to <20.2ha) (5 pts) (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)	2,35	·	
2	2	Metric 2. Upla	nd buffers and	surrounding	g land use.	
max 14.pts.	subtotal	WIDE. Buffers a MEDIUM. Buffe NARROW. Buffe VERY NARROW 2b. Intensity of surroundin VERY LOW. 2n LOW. Old field ( MODERATELY I	fer width. Select only one and verage 50m (164ft) or more a saverage 25m to <50m (82 ters average 10m to <25m (32 ters average 10m to <25m (32 ters average 10m to <32 ters average <10m (<32 ters average <10m (or older forest, prairing ters average), shrub land, young ters ters average <10m, young ters average of ters average ters average of ters av	round wetland perim o <164ft) around wet the <82ft) around wet the <82ft) around wetland pe uble check and avera e, savannah, wildlife on second growth fores sture, park, conserva	eter (7) iland perimeter (4) etland perimeter (1) erimeter (0) age. area, etc. (7) st. (5) tion tillage, new fallow field. (3)	
18	20	Metric 3 Hydr				
max 30 pts.	subtotal	3a. Sources of Water. Scources o	ater (5) er (3)  tent surface water (3) water (lake or stream) (5) Select only one and assign s to 27.6in) (2) 1) hydrologic regime. Score on	3d. Dura core.	nectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other Part of wetland/upland (e.g. for Part of riparian or upland corridation inundation/saturation. Score Semi- to permanently inundated Regularly inundated/saturated ( Seasonally inundated (2) Seasonally saturated in upper 3 d average.	est); complex (1) or (1) one or dbl check. d/saturated (4) (3)
		Recovered (7) Recovering (3) Recent or no reco	ditch tile		point source (nonstormwater) filling/grading road bed/RR track dredging other	
8	28	Metric 4. Habit	at Alteration and	d Developm	nent.	· ·
max 20 pts.	subtotal	None or none app. Recovered (3) Recovering (2) Recent or no recovering (2)	rery (1) elect only one and assign sco	ч,		
		4c. Habitat alteration. Score	one or double check and ave		•	
	28 otal this page	None or none appa Recovered (6) Recovering (3) Recent or no recove	mowing grazing	ng removal \	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	

Site:	F	Rater(s):	HI PATE	Date:
Z8				i.
	Metric 5. Special We	tlands.	Y .	
	Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlake Erie coastal/tributary wetlake Erie coastal/tributary wetlake Plain Sand Prairies (Oal Relict Wet Prairies (10) Known occurrence state/federes Significant migratory songbird Category 1 Wetland. See Qui	tland-unrestricted tland-restricted hy c Openings) (10) ral threatened or e /water fowl habital estion 1 Qualitative	rdrology (5) andangered species (10) t or usage (10) e Rating (-10)	
3 33	Vletric 6. Plant comm			
	a. Wetland Vegetation Communities.		on Community Cover Sc	
S	core all present using 0 to 3 scale.	0		<0.1ha (0.2471 acres) contiguous are
	Aquatic bed Emergent Shrub	1		omprises small part of wetland's of moderate quality, or comprises a is of low quality
4	Forest Mudflats Open water	2	Present and either co	omprises significant part of wetland's f moderate quality or comprises a sma
	Other  o, horizontal (plan view) Interspersion.	3		es significant part, or more, of wetland's
Se	elect only one.	ALC: YALKA		ovivano -
	High (5)		Description of Vegetation	
	Moderately high(4) Moderate (3)	low	disturbance tolerant	
	Moderately low (2) Low (1) None (0) Coverage of invasive plants, Refer Table 1 ORAM long form for list. Add	mod	although nonnative can also be present moderately high, bu	ant component of the vegetation, and/or disturbance tolerant native spp , and species diversity moderate to t generally w/o presence of rare
	deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	and/or disturbance to absent, and high spp	tive species, with nonnative spp olerant native spp absent or virtually o diversity and often, but not always, , threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudflat an	d Open Water Class Qua	ality
6d.	Microtopography.	0	Absent <0.1ha (0.247	
	ore all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247	to 2.47 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2	
	Coarse woody debris >15cm (6ir		High 4ha (9.88 acres)	or more
	/ Standing dead >25cm (10in) dbh		raphy Cover Scale	k
		0	Absent	
4.	)	, 1	of marginal quality	ounts or if more common
		2	quality or in small amo	nounts, but not of highest ounts of highest quality
		3	Present in moderate or and of highest quality	

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	
Raing	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	18	
	Metric 4. Habitat	Q)	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	5	Category based on score
	TOTAL SCORE	33	breakpoints 1-2 GRAY Zoa

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 <i>less</i> than the Category 2 scorin 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	(10)	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).
coes the wetland otherwise whibit moderate OR superior ydrologic OR habitat, OR ecreational functions AND ne wetland was not ategorized as a Category 2 retland (in the case of noderate functions) or a ategory 3 wetland (in the ase of superior functions) by is 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, 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	inal Category Category 2	Category 3
		1	- Sategory .
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	1 0	/ /) A / /	
	1-7	1 DOVEN	. \ 1

End of Ohio Rapid Assessment Method for Wetlands.



### **Background Information**

JOHN FREELAND	
Date: 11-26-2018	
A (P) 1 - 41	
MANNIK & SMITH GROUP	
Address: 1800 INDIANWOOD CIRCLE	
Phone Number: (419) 891-2222 × 2013	
e-mail address: JFREELAND @ MANNIKSMITHGI	ROUP, COM
A. CARLOL II	<u> </u>
$\omega_{II}$ =007	
Vegetation Communit(les):	
HGM Class(es): DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, \$1	GURE 4.
SEE ATTACALD	
Lat/Long or UTM Coordinate	
41.13700, -02,81712	
USGS Quad Name	
USGS Quad Name  County  HURON	
USGS Quad Name  County  HURON	
USGS Quad Name  County HURON  Township FUAT ROCK TZN, R24W	
USGS Quad Name  County HURON  Township FUAT ROCK TZN, R24W  Section and Subsection	
USGS Quad Name  County HURON  Township FUAT ROCK TZN, R24W  Section and Subsection  Hydrologic Unit Code 04/000/120503	
USGS Quad Name  County HURON  Township FUAT ROCK TZN, R24W  Section and Subsection  Hydrologic Unit Code 04/000/120503  Site Visit 9-24-18	
County HURON Township FLAT ROCK TZN, R24W Section and Subsection Hydrologic Unit Code 04/000/120503	
USGS Quad Name  County HURON  Township FUAT ROCK TZN, R24W  Section and Subsection  Hydrologic Unit Code 04/000/120503  Site Visit 9-24-18  National Wetland Inventory Map	

		4		
nments, Narrative Disc	ussion, Justification of Catego	ry Changes:		
				1
MAY, T	IGURE 4.	×		
SEE MAD T	ATTACHED IGURE 4.	WETLAND	DELIA	UEA110
				IF ATIM
		rface waters, vegetation zone		

#### 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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	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?	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
	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
	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
	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	NO Go to Question 8a
	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?		NO Go to Question 8b

			11
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	
	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO
	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	60 to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	(NO)
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth	YES Go to Question 9d	Go to Question 10
-0-1	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	NO
9d	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
	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO) ·
10	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
	type of wetland and its quality.		110
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 Cacalia plantaginea Carex flava Carex sterilis Carex sterilis Carex sterilis Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kaimii 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 oxyeoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lastocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis. Calamagrostis stricta Carex atherodes Carex buxbaumis Carex pellita Carex sartwellii Gentiana andrewsii 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.

Site:		Rater	r(s):	Date:
[	43			, and the second
n l	43	Metric 5. Special Wetlan	ıds.	
max 10 pts.	subtotal	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-take Erie coastal/tributary wetland-take Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro nings) (10) atened or end fowl habitat or	ology (5) angered species (10) rusage (10)
6	49	Metric 6. Plant commun	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.	M	1 0
		High (5)	Narrative D	escription of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare threatened or endangered spp
		or deduct points for coverage  Extensive >75% cover (-5)	high	A predominance of native species, with nonnative spp
		Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually
		Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not always,
		Nearly absent <5% cover (0)	***	the presence of rare, threatened, or endangered spp
		Absent (1)	Mudflat and	Open Water Class Quality
		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)
		✓ Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh	****	
		Amphibian breeding pools		raphy Cover Scale
			0	Absent Property on all amounts as if many
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts

49

End of Quantitative Rating. Complete Categorization Worksheets.

and of highest quality

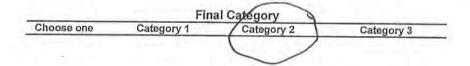
### **ORAM Summary Worksheet**

		circle	
		answer or	
		insert	Result
			Nesuit
		score	If yes, Category 3.
Narrative Rating	Question 1 Critical Habitat	YES NO	•
	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	
raang	Metric 2. Buffers and surrounding land use	Ĥ	
	Metric 3. Hydrology	21	
	Metric 4. Habitat	17	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	49	Category based on score breakpoints

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

## Wetland Categorization Worksheet

Choices	Circle one	A	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 scorin 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	(0)	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?	YES  Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	(NÓ)	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 eategorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by his 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, 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.



End of Ohio Rapid Assessment Method for Wetlands.



# Background Information

Name: JOHN FREELAND	
Date: 11 - 26 - 2018	
Affiliation:	
MANNIK SMITH GROUP Address:	0.505
Address:  1800 INDIAN WOOD CIRCLE, MAUMEE, OH  Phone Number:	43337
(4/9) 891-ZZZZ X 20/3	
e-mail address:  JEREELAND QMANNIKSMITH	GROUP, COM
Name of Wetland: $\omega_{IM} \sim 060$	
Vegetation Communit(ies): PFO, PEM	
HGM Class(es): DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, F,	GURE 4.
	·
Lat/Long or UTM Coordinate 41, 15036, -82.8/053	
USGS Quad Name	
County Haron	
TOWNSHIP FLAT RUCK T3N, R24W	
Section and Subsection	
Hydrologic Unit Code 04/000/Z0503	
Site Visit 9 - 24 - 2018	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey Soil SURVEY OF HURON COUNTY, OHIO	
Delineation report/map  A TTACHED	

# WETLAND EXTENDS OFF PROPERTY

AP,
AP,
AP,
18
110
MODIFIED

#### **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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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.

	Ougation	Cirolo on-	
#	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).	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	YES	(NO)
	threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in	Go to Question 3 YES	(NO)
ა	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	A
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	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
		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	YES	NO)
	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	Wetland is a Category 3 wetland.  Go to Question 8b	Go to Question 8b
	canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?		

#### 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.	YES	T Y TO
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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

		YES	(NO)
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	8
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
Ju	an elevation less than 575 feet on the USGS map, adjacent to this	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	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	The state of have a predominance of native species within its	YES	(NO)
gu	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	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NQ)
10	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
7 - 1	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
11	Relict Wet Prairies. Is the wetland a relict wet prairie of minding 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, Mlami, Montgomery, Van Wert etc.).	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 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 Tofieldia glutinosa Trielochin maitumm Trielochin nalustre	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 canadensi. Calamagrostis stricta Carex atherode. Carex buxbaumi Carex pellita Carex sartwellii Gentiana andrewsii Helianihus 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.

MODIFIED CATEGORY 2 WIM-060 ORAM v. 5.0 Field Form Quantitative Rating Date: 1,000 Rater(s): Site: Metric 1. Wetland Area (size). 2 max 6 pts subtotal Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) CONTINUES WEST OF PROPERTY 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. max 14 pts. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3b. Connectivity. Score all that apply. subtotal 3a. Sources of Water. Score all that apply. max 30 pts 100 year floodplain (1) = High pH groundwater (5) Between stream/lake and other human use (1) Other groundwater (3) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Seasonal/Intermittent surface water (3) Part of riparian or upland corridor (1) 3d. Duration inundation/saturation. Score one or dbl check. Perennial surface water (lake or stream) (5) Semi- to permanently inundated/saturated (4) Maximum water depth. Select only one and assign score. Regularly inundated/saturated (3) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score one or double check and average Check all disturbances observed None or none apparent (12) point source (nonstormwater) ditch Recovered (7) Recovering (3) tile filling/grading road bed/RR track Recent or no recovery (1) dike dredging weir stormwater input Metric 4. Habitat Alteration and Development. subtotal Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. 4b. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or double check and average. Check all disturbances observed None or none apparent (9) shrub/sapling removal Recovered (6) mowing herbaceous/aquatic bed removal grazing Recovering (3) sedimentation clearcutting Recent or no recovery (1) selective cutting dredging farmina woody debris removal nutrient enrichment toxic pollutants

last revised 1 February 2001 jjm

Site:	Rate	r(s):	Date:
г		. (0)-	Date.
	20 0		
Ļ	~8:2		
suc	ototal first page	_	
0	28.5 Metric 5. Special Wetlar	nds.	
max 10 pts.	subtotal Check all that apply and score as indicated.		
	Bog (10)		
	Fen (10)		
	Old growth forest (10)	\	
	Mature forested wetland (5)		la I
	Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland-	unrestricted hydro	trology (10)
	Lake Plain Sand Prairies (Oak Oper	nings) (10)	(b)
	Relict Wet Prairies (10)		
	Known occurrence state/federal three	eatened or enda	angered species (10)
	Significant migratory songbird/water Category 1 Wetland. See Question	towl habitat or	usage (10)
T	Motrie C Dieut		- · · · · · · · · · · · · · · · · · · ·
7 1	35.5 wetric 6. Plant commun	ities, int	erspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vogototion	Community Cover 01-
	Score all present using 0 to 3 scale.	vegetation 0	Community Cover Scale Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent		vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	Z Forest ' Mudflats	2	Present and either comprises significant part of wetland's
	Open water		vegetation and is of moderate quality or comprises a small part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one. High (5)	Marrativa De	population of Vocateties Ovelite
	Moderately high(4)	low	escription of Vegetation Quality  Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1) None (0)		although nonnative and/or disturbance tolerant native spp
	6c. Coverage of invasive plants. Refer		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)   Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
	Absent (1)	Mudflat and	Open Water Class Quality
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh	_	Timori, time foliog actions of titloto
	Amphibian breeding pools		aphy Cover Scale
		0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest
			quality or in small amounts of highest quality
		3	Present in moderate or greater amounts

35,5

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-060

### **ORAM Summary Worksheet**

		circle answer or	Result
		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 (10)	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	
Caung	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	6.5	
	Metric 5. Special Wetland Communities	Ó	
	Metric 6. Plant communities, interspersion, microtopography	( )	
	TOTAL SCORE	35.5	Category based on score breakpoints  MoDIFIED

Complete Wetland Categorization Worksheet.

# 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 <i>less</i> than the Category 2 scorir 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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 hurnan 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.

	Fin	al Category	
Choose one	Category 1	Category 2	Category 3
*			
		MANIFIE	= \(\)

End of Ohio Rapid Assessment Method for Wetlands.

10



# **Background Information**

Name: JOHN FREELAND	
Date: 11-26-2018	
Affiliation: MANNIK & SMITH GROUP	
	1 43537
Phone Number: ( )	
$(419)891-2222 \times 2013$	
e-mail address: JFREE AND @ MANNIKSMI	THGROUP, CO.
Name of Wetland: $\omega / M = 06/$	
Vegetation Communit(ies):	
HGM Class(es):  DEPRESSIONAL / RIVERINE  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, FIC	SURE 4.
Lat/Long or UTM Coordinate	
USGS Quad Name  41, 15248, -82, 8/5/4	
County	
HURON	
- FLAT ROCK TSN, RIZYW	
Section and Subsection	
Hydrologic Unit Code 04/000/20503	
Site Visit 9-74-2018	
National Wetland Inventory Map	
Dhio Wetland Inventory Map	
Soil Survey SOIL SURVEY OF HURUN COUNTY, OH	
Delineation report/map  ATTACHED	

		-001		
Wetland Size (acre	es, hectares):	0.22	ACRE	
Sketch: Include n	orth arrow, relations	ship with other surface v	vaters, vegetation zones, etc.	
3		and the state of t		0
SEE A	TTACHED	WETLAND	DELINEATION	MAR
FIGUR	F 4			
1 1 6 00 10	,			
mments, Narrativ	re Discussion, Justi	ification of Category Cha	nges:	
nments, Narrativ	e Discussion, Justi	ification of Category Cha	nges:	
nments, Narrativ	e Discussion, Justi	ification of Category Cha	nges:	
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mments, Narrativ	e Discussion, Justi	ification of Category Cha	nges:	
omments, Narrativ	e Discussion, Justi	ification of Category Cha	category:	

WIM-06/

#### 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.

r:	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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	U IES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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		
<ul> <li>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).</li> <li>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?</li> </ul>		Wetland should be evaluated for possible Category 3 status	ble Nd	
		Wetland is a Category 3 wetland. Go to Question 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	
	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	
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	
	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	NO) Go to Question 8a	
1	"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?	Go to Question 8a 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	YES	(NO.)
	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	
	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
Эa	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Go to Question 10
9b	Deep the wetland's hydrology result from measures designed to	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,	YES	NO
	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 sandhar deposition wetlands, estuarine wetlands, river mouth	Go to Question 9d	Go to Question 10
-0-	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	NO
9d	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	YES	NO
30	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	8
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO )
10	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy	Wetland is a Category 3 wetland.	Go to Question 11
	substrate with interpolated organic must be 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	Go to Question 11	
	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	YES	NO
	ware formerly located in the Darby Plains (Madison and Union	Wetland should be	Complete
	Counties) Sanducky Plains (Myandof, Crawford, and Marion 1	evaluated for possible Category 3 status	Quantitative Rating
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Galegory 5 status	ramy
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1.	Characteristic	plant s	species.

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 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 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 Schechseria 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 canadensi. Calamagrostis stricte Carex atherode. Carex buxbaumi. Carex pellita Carex sartwelli. Gentiana andrewsii 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.

WIM-06/

ORAM v. 5.0 Field Form Quantitative Rating Date: Site: Rater(s): 37,000 Metric 1. Wetland Area (size). max 6 pts. subtotal Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surrounding land use. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 260 Connectivity. Score all that apply max 30 pts. subtotal 3a. Sources of Water. Score all that apply. 100 year floodplain (1) & High pH groundwater (5) Between stream/lake and other human use (1) Other groundwater (3) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Part of riparian or upland corridor (1) Seasonal/Intermittent surface water (3) Duration inundation/saturation. Score one or dbl check. 3d. Perennial surface water (lake or stream) (5) Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (4) 3c. Regularly inundated/saturated (3) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) <0.4m (<15.7in) (1) Modifications to natural hydrologic regime. Score one or double check and average. None or none apparent (12) | Check all disturbances observed point source (nonstormwater) Recovered (7) ditch Recovering (3) tile filling/grading. road bed/RR track Recent or no recovery (1) dike dredging weir stormwater input Metric 4. Habitat Alteration and Development. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or double check and average Check all disturbances observed None or none apparent (9) shrub/sapling removal Recovered (6) mowing herbaceous/aquatic bed removal Recovering (3) grazing sedimentation Recent or no recovery (1) clearcutting selective cutting dredging woody debris removal farming Inutrient enrichment toxic pollutants last revised 1 February 2001 jjm

Site:		Rater(s):	Data
Oito.	l	vater (5).	Date:
SU	35 ubtotal first page		
0	35 Metric 5. Special We	etlands.	
max 10 pts.	subtotal Check all that apply and score as indic	ated.	•
	Bog (10)		
	Fen (10) Old growth forest (10)		
	Mature forested wetland (5)		
•	Lake Erie coastal/tributary w	etland-unrestricted hyd	drology (10)
	Lake Erie coastal/tributary w	etland-restricted hydro	logy (5)
	Lake Plain Sand Prairies (Oa	ak Openings) (10)	÷
	Relict Wet Prairies (10)		
	Known occurrence state/fede	eral threatened or enda	angered species (10)
	Category 1 Wetland. See Qu	u/water fow nabitation Jestion 1 Qualitative R	ating (-10)
,			erspersion, microtopography.
6	Metric o. Trant com	iiuiiities, iiit	erspersion, inicrotopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent		vegetation and is of moderate quality, or comprises a
	Shrub Forest	2	significant part but is of low quality
	Mudflats	. 2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion		vegetation and is of high quality
	Select only one.	Name ( D	
	High (5)  Moderately high(4)	Narrative De	escription of Vegetation Quality
	Moderate (3)	IOW	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	<ul><li>6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add</li></ul>	1	moderately high, but generally w/o presence of rare threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)	riigir	and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudfletend	Onen Water Olera Oscalita
	6d. Microtopography.	0	Open Water Class Quality 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)
	Vegetated hummucks/tussuck		Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm		High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) of Amphibian breeding pools		anhy Cover Seele
	TY Combining preeding books	wiicrotopogr 0	aphy Cover Scale Absent
		1	Present very small amounts or if more common
			of marginal quality
		2	Present in moderate amounts, but not of highest
		-	quality or in small amounts of highest quality
, , , ]		3	Present in moderate or greater amounts and of highest quality

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	1	
tating	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	//	
	Metric 4. Habitat	9	er Tallen in State of
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	/ n 18	
	TOTAL SCORE	Ш	Category based on score breakpoints MoDIFIED 2

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 <i>less</i> than the Category 2 scori 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	MO)	Evaluate the wetland using the 1) narrative criteria in OA(Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland usi either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessmen 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) car 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	0	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).
coes the wetland otherwise exhibit moderate OR superior ydrologic OR habitat, OR ecreational functions AND ne wetland was not attegorized as a Category 2 wetland (in the case of noderate functions) or a category 3 wetland (in the ase of superior functions) by his 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.

Final Category
Choose one Category 1 Category 2 Category 3

MODIFIED

End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

Name: JOHN FREELAND
Date: 11-26-2018
Affiliation:
MANNIK 9 SMITH GROUP  Address:
1800 INDIAN WOOD CIRCLE, MAUMEE, OH 43 9
(419) 891-2727 X 2013
J FREE LAND Q MANNIKSMITHGROUP, COM
Name of Wetland: $\omega_1 M = 064$
Vegetation Communit(ies):
HCM Class (ac):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE Y.
の できない は、
Lat/Long or UTM Coordinate 41.15641, -82.8/48/
USGS Quad Name
County
Township FLAT ROCK T3N, R24W
Section and Subsection
- Hydrologic Unit Code 041000120503
Site Visit 9/25/2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey  SOIC SURVEY OF HURON COUNTY, OH  Delineation report/map  ATTACHED
pelineation report/map
ATTACHEO

Name of Wetland:	WIM_06	4		
Wetland Size (acres	s, hectares):	O. O. A.C.K th other surface waters, vegeta	E	
SEE.	ATTACHED	WETLAND	DELINEA	-T/0N
MAP,	FIGURE	4,		
comments, Narrative	Discussion, Justification	n of Category Changes:		
			ie.	
		*		
				4.1
inal score :	1/9		Category:	2

WIM-064

#### 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.

IT	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.	UES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	Wetland should be evaluated for possible Category 3 status	Go to Question
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?	Wetland is a Category 3 wetland.  Go to Question 3	Go to Question 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
	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
	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
	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
	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
	"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	NO Ouestion 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	YES Wetland should be	Go to Question 9a
	deciduous frees with large diameters at breathing it (227), game diameters greater than 45cm (17.7in) dbh?	evaluated for possible Category 3 status.	
		Go to Question 9a	NO
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NO
	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?	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	120	
	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	A
	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	(NO)
9с	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border atterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	Linglands applying deposition wetlands estuaring wetlands, river mount		<b>A</b>
	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	NO)
9d	vegetation communities, although non-native or disturbance tolerant	)	Go to Question 9e
	native species can also be present?	Wetland is a Category 3 wetland	GO to Question se
	C the and light who poo	Go to Question 10 YES	(NO)
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?		
	tolerant native plant species warming regression	Wetland should be evaluated for possible	Go to Question 10
	·	Category 3 status	
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO ) ·
10	Lives Fulton Hoppy or Wood Counties and can the Wetland be	Wetland is a Category	Go to Question 11
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within	3 wetland.	
	I will a common of the purface, and offen with a dominance of the	Go to Question 11	
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	Go to Quocion 11	
	Natural Areas and Preserves can provide assistance in confirming this		A
	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO )
11	deminated by some or all of the species in Table 1. Extensive plaines	Y	Complete
	I ware formarly located in the Darby Plains (Madison and Ullion	Wetland should be evaluated for possible	Quantitative
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Marri,	Complete Quantitative	
	Montgomery, Van Wert etc.).	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 Cacalia plantaginea Carex sterilis 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 Trofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex cchinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium marocarpon 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 buxbaumii Carex pellita Carex sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum mutans Spartina pectinata Solidago riddellii

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

ORAM v. 5.0 Field Form Quantitative Rating

Site:	Angrow (	Rater(s):	7	Date: 9/15/18
0 0	Metric 1. Wetland	Area (size).	(NIM-	664
max 6 pts. subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 p	ts) <20.2ha) (5 pts) .1ha) (4 pts) na) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt) s)		664 ; ORY Z
4 4	Metric 2. Upland b	uffers and surro	unding land use	<del>)</del> .
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffer 2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. R	50m (164ft) or more around we ge 25m to <50m (82 to <164ft) age 10m to <25m (32ft to <82ft) around se. Select one or double chec or older forest, prairie, savann (s), shrub land, young second (sesidential, fenced pasture, par open pasture, row cropping, m	tland perimeter (7) around wetland perimeter (4) c) around wetland perimeter (1) l wetland perimeter (0) k and average. ah, wildlife area, etc. (7) growth forest. (5) k, conservation tillage, new fa	1)
17 21	Metric 3. Hydrolog	у.		
max 30 pts. subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent sur Perennial surface water ( 3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological surface water (1)  Advisor of the Source of Water (1)  Advisor of the Water (1)  Advisor of the Water (1)  Advisor of the Water (1)  Advisor of Water (1)  Advisor of the Water (1)  Advisor of	face water (3) lake or stream) (5) only one and assign score. n) (2)	Part of wetland Part of riparian 3d. Duration inundation/s Semi- to perma Regularly inund Seasonally inund Seasonally sati	olain (1) Annual value (1) on/lake and other human use (1) /upland (e.g. forest), complex (1) or upland corridor (1) aturation. Score one or dbl check anently inundated/saturated (4) dated/saturated (3)
(	None or none apparent (** Recovered (7) Recovering (3) Recent or no recovery (1)	2) Check all disturbances ob ditch tile		
18 39	Metric 4. Habitat A	Iteration and De	velopment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	<b>i</b> )	ge.	
	4c. Habitat alteration. Score one o		havras	
subtotal this p		mowing grazing	shrub/sapling reherbaceous/aq sedimentation dredging	uatic bed removal

Site:	Rater	(s):	Date:	
subte	39 otal first page 39 Metric 5. Special Wetlan	ds.		
	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) atting (-10)	
10	49 Wethe 6. Plant communi	ues, int	erspersion, microtopography.	
max 20 pts.	Ga. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed Emergent Shrub Forest Mudflats Open water Other Gb. horizontal (plan view) Interspersion.  Select only one.  High (5) Moderately high(4) Moderately low (2) Low (1) None (0)  6c. Coverage of invasive plants. Refer	2	Community Cover Scale  Absent or comprises <0.1ha (0.2471 acres) contiguous a  Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality  Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a sn part and is of high quality  Present and comprises significant part, or more, of wetlar vegetation and is of high quality  escription of Vegetation Quality  Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native s can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare	nall
	to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks  Coarse woody debris >15cm (6in)  Standing dead >25cm (10in) dbh  Amphibian breeding pools	0 1 2 3	threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always the presence of rare, threatened, or endangered spp  Open Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more  raphy Cover Scale  Absent  Present very small amounts or if more common of marginal quality	,
110		3	Present in moderate amounts, but not of highest quality or in small amounts of highest quality  Present in moderate or greater amounts and of highest quality	

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End of Quantitative Rating. Complete Categorization Worksheets.

WIM-064

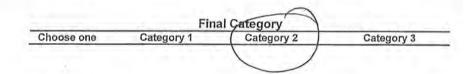
## **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (10)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (10)	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.
luantitative lating	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use	Ч	
	Metric 3. Hydrology	17	
	Metric 4. Habitat	18	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	10	
	TOTAL SCORE		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		Is quantitative rating score <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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?	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 <i>"gray zone"</i> 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 ecreational functions AND he wetland was not eategorized as a Category 2 evetland (in the case of noderate functions) or a Category 3 wetland (in the case of superior functions) by his 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.



End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

lame of Wetland:	W/M ~ O	66			
/etland Size (acres,	hectares):	0,02			
ketch: Include nort	h arrow, relationsh	ip with other sur	face waters, vegetation z	cones, etc.	
CEE	1				
500	ATTAC	-HED	WETLAND	DELINEATIO	INC
MAP	FIGUR	RF 4.			
10/1	1 10000	, ,			
					1
				*	
nments, Narrative I	Discussion, Justific	ation of Categor	y Changes:		
nments, Narrative I	Discussion, Justific	cation of Categor	y Changes:		
nments, Narrative I	Discussion, Justific	ation of Categor	y Changes:		
nments, Narrative I	Discussion, Justific	cation of Categor	y Changes:		
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nments, Narrative I	Discussion, Justific	cation of Categor	ry Changes:		
nments, Narrative I	Discussion, Justific	cation of Categor	ry Changes:		
mments, Narrative I	Discussion, Justific	cation of Categor	ry Changes:		

## 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.	YES	
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.	YES	
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.	ÆS	·
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 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 plove has had critical habitat proposed (65 FR 41812 July 6, 2000).	of 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 conta an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	in 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
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Go to Question 4 YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 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
	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	NO 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%?	Wetland is a Category 3 wetland	NO Go to Question 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?	V.	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	Go to Question 9a
		Category 3 status.  Go to Question 9a	<b>A</b>
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(0)
	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?	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	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	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.	Go to Question 9d	Go to Question 10
9d	Deep the wotland have a predominance of native species within its	YES	NO
эu	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	
	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	Go to Question 10
		Category 3 status	
	,	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	Wetland is a Category 3 wetland.	Go to Question 11
	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	Go to Question 11	
	type of wetland and its quality.		
11	Delict 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	Wetland should be	Complete
	Counties) Sandusky Plains (Myandof, Crawford, and Marion	evaluated for possible	Quantitative Rating
	Counties), Sandasky Flains (Cylarice, Porn, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 3 status	raung
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1. Characteristic plant species.

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 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 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 Schechseria 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 stricto. Carex atherodes. Carex buxbaumi. Carex pellito. Carex sartwelli. Gentiana andrewsis. Helianthus grosseserratus. Liatris spricata. Lysimachia quadriflora. Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans. Spartina pectinata. Solidago riddellii

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



Site:	WIM	-066	Rater(s):	JAF	Date	: 9-25-18
		-	iroa (cizo)			•
0	0	Metric 1. Wetland A	Alea (Size).	•		
max 6 pts.	subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts				٠
		25 to <50 acres (10.1 to <	20.2ha) (5 pts)			
		10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h	a) (3 pts)			
		0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to			•	
		<0.1 acres (0.04ha) (0 pts)		urraundina	a land uso	
14	14	Metric 2. Upland bu	illers allu s	urrounding	j iaiiu use.	
max 14.pts.	subtotal	2a. Calculate average buffer width.	Select only one and	assign score. Do no	ot double check.	
		WIDE. Buffers average 50 MEDIUM. Buffers average	e 25m to <50m (82 to	<164ft) around wetl	and perimeter (4)	
		NARROW. Buffers average VERY NARROW. Buffers				
		2b. Intensity of surrounding land use VERY LOW. 2nd growth of	e. Select one or doub or older forest, prairie.	ole check and averages	ge. area. etc. (7)	
		LOW. Old field (>10 years	), shrub land, young s	second growth fores	t. (5) ion tillage, new fallow field. (3	
		HIGH. Urban, industrial, o				<i>3)</i>
13	27	Metric 3. Hydrology	/ <sub>*</sub>			
max 30 pts.	subtotal	3a. Sources of Water. Score all that	apply.	3b. <u>Con</u>	- nectivity. Score all that apply	·.
		High pH groundwater (5) Other groundwater (3)		X	100 year floodplain (1) Between stream/lake and c	other human use (1)
		Precipitation (1) Seasonal/Intermittent surfa	co water (3)	2	Part of wetland/upland (e.g Part of riparian or upland co	. forest); complex (1)
		Perennial surface water (lal	ke or stream) (5)		tion inundation/saturation. S	core one or dbl check.
		3c. Maximum water depth. Select or >0.7 (27.6in) (3)	•	ore.	Semi- to permanently inund Regularly inundated/satura	
		0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	(2)		Seasonally inundated (2) Seasonally saturated in upp	per 30cm (12in) (1)
		3e. Modifications to natural hydrologi			d average.	
		None or none apparent (12) Recovered (7)	ditch	ices observed	point source (nonstormwate	r)
		Recovering (3) Recent or no recovery (1)	tile dike		filling/grading road bed/RR track	
			weir stormwater in	put	dredging other	
- 1		Metric 4. Habitat Alt				
9	36	Wellic 4. Habitat Ait	eration and	Developin	ient.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one None or none apparent (4)	e or double check and	average.		
		Recovered (3)				
	•	Recovering (2) Recent or no recovery (1)	-	ъ.		•
		4b. Habitat development. Select only Excellent (7)	one and assign score	a.**		
		Very good (6) Good (5)				
		Moderately good (4)	•	٠		
		Fair (3) Poor to fair (2)				
	4	Poor (1)  c. Habitat alteration. Score one or do	ouble check and avera	age.	·	
		None or none apparent (9)	Check all disturbanc	es observed		
		Recovered (6) Recovering (3)	mowing grazing		shrub/sapling removal herbaceous/aquatic.bed remo	oval
Г		Recent or no recovery (1)	clearcutting selective cuttin		sedimentation dredging .	
:	361	-	woody debris r	emoval '	farming nutrient enrichment	-
subto	tal this page		toxic politicalits		,	
		2004 iim				

Site:	F	Rater(s):	Date:
36 subtotal first page	ial .		
	tric 5. Special We	tlands.	*
the state of the s	all that apply and score as indica	ated.	
	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary we Lake Erie coastal/tributary we Lake Plain Sand Prairies (Oal Relict Wet Prairies (10) Known occurrence state/feder	etland-unrestricted etland-restricted hyd k Openings) (10)	drology (5)
	Significant migratory songbird	/water fowl habitat	or usage (10)
10/104	Category 1 Wetland. See Qu		
6 42 Wet	ric 6. Plant comm	iunities, ir	iterspersion, microtopography.
	tland Vegetation Communities.	Vegetatio	n Community Cover Scale
	Il present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous at
2	Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
	Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a sm part and is of high quality
6b. hori	Other zontal (plan view) Interspersion.	. 3	Present and comprises significant part, or more, of wetland vegetation and is of high quality
Select o	nly one.	Z. (**)	
	High (5)		Description of Vegetation Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
-	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
X	Low (1) None (0)		although nonnative and/or disturbance tolerant native spr
	grage of invasive plants. Refer 1 ORAM long form for list. Add		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
or deduct	points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
~	Nearly absent <5% cover (0) Absent (1)	Mudflot and	LOngs Weter Class Coults
6d Micro	topography.	0	Open Water Class Quality Absent <0.1ha (0.247 acres)
	present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
1	Coarse woody debris >15cm (6ir	) 3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh Amphibian breeding pools		raphy Cover Scale
	proceeding pools	0	Absent
,		. <u>j</u>	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
<b>3</b>		3	Present in moderate or greater amounts and of highest quality

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 (10)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES (NO	If yes, Category 3.
1	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	Metric 1. Size	0	
Rating	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	13	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	42	Category based on score breakpoints

MODIFIED

Complete Wetland Categorization Worksheet.

WIM\_066

# 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 <i>less</i> than the Category 2 scoring threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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?	Wetland is assigned to the appropriate category based on the scoring range		If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score,
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	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).
coes the wetland otherwise whibit moderate OR superior ydrologic OR habitat, OR ecreational functions AND he wetland was not ategorized as a Category 2 etland (in the case of coderate functions) or a ategory 3 wetland (in the ase of superior functions) by is method?	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, 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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MODIFIED

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name:
JOHN FREELAND  Date:
11-26-2018
MANNIK & SMITH GROUP
Address:  1800 INDIAN WOOD CIRCLE
Phone Number: (419) 891-222 × 2013  e-mail address:
JEREELAND'a MANNIKSMITHGROUP, CUM
Name of Wetland: $W1M - 067$
Vegetation Communit(ies):
HGM Class(as).
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
JEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate 41, 11676, -82.84551
USGS Quad Name
County
Section and Subsection  CENTERTON 72N, RI7E
Hydrologic Unit Code
0400120502
9/25/2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
SOIL SURVEY OF HURON COUNTY OH
Delineation report/map

etach: Include north arrow, rolationship with other surface waters, vegetation zones, etc.  SEE ATTACHED WETLAND DELINEATION MAR FIGURE 4.		-067	0.5	1
SEE ATTACHED WETLAND DELINEATION MAP FIGURE 4.	ketch: Include north arrow, relations	in with other surface wat	ers venetation zones etc	
FIGURE 4.				
FIGURE 4.	SEE ATTACHED	WETLAND	DELINEATION	MAP
	FICURAL 4		0 - 1 - 02/1101-	11117
nments, Narrative Discussion, Justification of Category Changes:	116 WILL 7.			
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	mments, Narrative Discussion, Justi	fication of Category Chang	ies:	
			777	

#### 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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	The Hall Street	(5)
	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).	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?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	7
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
	Significant Breeding or Concentration Area. Does the wetland	Go to Question 4 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
	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
	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
	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%?	Go to Question 7 YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 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	NO Go to Question 8b

	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
8b	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	
	Lake Frie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
9a	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	@ to Question 10
9b	Deep the wetland's hydrology result from measures designed to	YES	(NO)
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	
	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	(NO)
9c	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 conduct deposition wetlands, estuarine wetlands, river mouth	Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	NO
9d	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland Go to Question 10	Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
96	tolerant native plant species within its vegetation communities?	Wetiand 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)
10	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
	time 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

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 Cacalia plantaginea Carex flava Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmit Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Trofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex chinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechseria 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 strictic Carex atherode. Carex atherode. Carex buxbaumi Carex pellitic Carex sartwelli. Gentiana andrewsi. 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.

ORAM v. 5.0 Fiel	d Form Quantitative Rating		
Site:	A39,2600	Rater(s):	Date: 9/25/18
max 6 pts. subto	00.000000000000000000000000000000000000	imp accept	WM-667
	10 to <25 acres (4 3 to <10 acres (1.2 2 0.3 to <3 acres (0.1 0.1 to <0.3 acres (0.4 <0.1 acres (0.04ha)	to <4ha) (3 pts) 2 to <1.2ha) (2pts) CONTINUES .04 to <0.12ha) (1 pt) (0 pts)	
4 4	Metric 2. Uplan	d buffers and surrounding	g land use.
max 14 pts. subto	WIDE. Buffers ave MEDIUM. Buffers NARROW. Buffers VERY NARROW.	width. Select only one and assign score. Do no rage 50m (164ft) or more around wetland perime average 25m to <50m (82 to <164ft) around wetlaverage 10m to <25m (32ft to <82ft) around wetlauffers average <10m (<32ft) around wetland peand use. Select one or double check and average	eter (7) and perimeter (4) etland perimeter (1) erimeter (0)
	VERY LOW. 2nd g LOW. Old field (>1 MODERATELY HIG HIGH. Urban, indu	rowth or older forest, prairie, savannah, wildlife a 0 years), shrub land, young second growth fores BH. Residential, fenced pasture, park, conserval strial, open pasture, row cropping, mining, const	area, etc. (7) t. (5) tion tillage, new fallow field. (3)
	Metric 3. Hydro	logy.	
max 30 pts. subto	High pH groundwater Other groundwater Precipitation (1)	er (5) (3)  If the surface water (3)	nectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)
•	3c. Maximum water depth. S >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to <0.4m (<15.7in) (1)	delect only one and assign score.	ation inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
	None or none appa Recovered (7) Recovering (3) Recent or no recov	ditch tile	point source (nonstormwater)  filling/grading road bed/RR track dredging other
6 0	Metric 4. Habita	at Alteration and Developr	ment.
max 20 pts. subto	None or none appa Recovered (3) Recovering (2) Recent or no recov	ery (1)	
	Excellent (7) Very good (6) Good (5) Moderately good (4	elect only one and assign score.	
		one or double check and average.	·
	None or none appa Recovered (6) Recovering (3) Recent or no recov	mowing grazing ery (1) clearcutting selective cutting	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dreding
subtotal th	<b>◯</b>	woody debris removal toxic pollutants	farming nutrient enrichment
last revised 1 Feb	oruary 2001 jjm		

Site:		Rater	(s)·		Date:
			(0).		Date.
su	20 btotal first p	age			
0	20	Metric 5. Special Wetlan	ds.		
max 10 pts.	subtotal	Check all that apply and score as indicated.			
		Bog (10) Fen (10)		*	
		Old growth forest (10)			
		Mature forested wetland (5)			
,		Lake Erie coastal/tributary wetland-u			
		Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open	estrictea nyaro inas) (10)	logy (5)	
		Relict Wet Prairies (10)			
		Known occurrence state/federal three			
		Significant migratory songbird/water			
		Category 1 Wetland. See Question		~ · ·	
7	27	Metric 6. Plant communi			pography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.		Community Cover Scale	
	. •	Aquatic bed	0	Absent or comprises <0.1ha (0.247 Present and either comprises small	
		Emergent	,	vegetation and is of moderate qu	
		Shrub		significant part but is of low qualit	у
		Forest	2 、	Present and either comprises signif	ficant part of wetland's
		Mudflats Open water		vegetation and is of moderate quality	ality or comprises a small
		Other	3	part and is of high quality  Present and comprises significant p	part or more of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	and of more, or wedayla o
		Select only one.			
		High (5) Moderately high(4)		scription of Vegetation Quality	
	-	Moderate (3)	low	Low spp diversity and/or predomina disturbance tolerant native species	
		Moderately low (2)	mod	Native spp are dominant componer	
		Low (1)		although nonnative and/or disturb	ance tolerant native spp
		None (0)  6c. Coverage of invasive plants. Refer		can also be present, and species	
		to Table 1 ORAM long form for list. Add		moderately high, but generally w/o threatened or endangered spp	o presence of rare
		or deduct points for coverage	high	A predominance of native species,	with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native	
		Moderate 25-75% cover (-3)		absent, and high spp diversity and	
		Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatened,	or endangered spp
		Absent (1)	Mudflat and	Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	<del></del>
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acre	
		Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	2	Moderate 1 to <4ha (2.47 to 9.88 a	cres)
		2 Standing dead >25cm (10in) dbh		High 4ha (9.88 acres) or more	
		Amphibian breeding pools	Microtopogra	aphy Cover Scale	
		_	0	Absent	
			1	Present very small amounts or if mo of marginal quality	
			2	Present in moderate amounts, but n quality or in small amounts of high	
-			3	Present in moderate or greater amo	
				and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

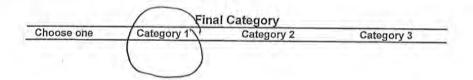
## **ORAM Summary Worksheet**

		circle answer or	
		insert	Result
			Kesuit
		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 (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	
3	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	1(	
	Metric 4. Habitat	5	
	Metric 5. Special Wetland Communities	O	
	Metric 6. Plant communities, interspersion, microtopography	7	
	TOTAL SCORE	27	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 scorir 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	0	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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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?	Vettand 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 exategorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by his 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.



End of Ohio Rapid Assessment Method for Wetlands.

## **Background Information**

Name: JOHN FREELAND	
Date: 11-28-2018	
Affiliation: MANNIK SMITH GROUP	
Address:	43537
1800 INDIAN WOOD CIRCLE, MAUMEE, OH Phone Number: (110) SOLITION X 2013	13331
e-mail address: (419) 891-2777 X 2013	100000
Name of Wetland: 1114 068	14/2041,2011
Venetation Communit(ies):	
HGM Class(es):	
DEPRESSIONAL / KINE NE	
SEE ATTACHED LOCATION MAP, FI	GURE 4.
366 711	
	14)
Lat/Long or UTM Coordinate 41. 116 592 , -82.84678	
USGS Quad Name	
County	
Township CENTERTON T2N RITE	
Section and Subsection	
Hydrologic Unit Code 04/000120502	
Site Visit 9 - 76 - 20/8	
National Wetland Inventory Map	
Dhio Wetland Inventory Map	
Soil Survey SOIL SURVEY OF HURON COUNTY OH	
Delineation report/map	

M-41-41 Ol- /	WIM-068			
	s, hectares):	2.16		
Sketch: Include no	th arrow, relationship	with other surface waters,	vegetation zones, etc.	
SEE A	TTACHED	WETLAND	DECINEATIO	11/
MAR	FIGURE	4.		
			+	
mments, Narrative	Discussion, Justificat	tion of Category Changes:		
mments, Narrative	Discussion, Justificat	tion of Category Changes:		
mments, Narrative	Discussion, Justificat	tion of Category Changes:		
mments, Narrative	Discussion, Justificat	ion of Category Changes:		
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mments, Narrative	Discussion, Justificat	cion of Category Changes:		
mments, Narrative	Discussion, Justificat	ion of Category Changes:		

## 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.	YES	
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.	ies	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 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 plove has had critical habitat proposed (65 FR 41812 July 6, 2000).	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 conta 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
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	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?	Go to Question 4 YES Wetland is a Category 3 wetland	Go to Question 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?	Go to Question 5 YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 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
	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%?	Go to Question 7 YES  Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 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	NO Go to Question 8b

# WIM-068

01	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
8b	Mature forested wetanics to 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	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
Ja	an elevation less than 575 feet on the USGS map, adjacent to this	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	Go to Question 9c
-		Go to Question 10 YES	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Does the watered have a predominance of native species within its	YES	NO
Ju	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
	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	NO )
10	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
	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO )
11	Relict Wet Prairies. Is the wetland a relict wet plante 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.).	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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis 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 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium nacrocarpon Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi Calamagrostis canadensi Carex atherode. Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi. Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

Site:	Wir No Rat	er(s):		Date:
s D	28 ubtotal first page  Z8  Metric 5. Special Wetla			
max 10 pts.	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 Praines (Oak Or Relict Wet Prairies (10) Known occurrence state/federal ti Significant migratory songbird/wa Category 1 Wetland. See Question	nd-unrestricted h nd-restricted hydro penings) (10) hreatened or end ter fowl habitat on on 1 Qualitative	rology (5) dangered species (10) or usage (10) Rating (-10)	nogranhy
111	39 Metric 6. Plant commu	nities, in	terspersion, microto	pograpny.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24)	71 acres) contiguous area
	Aquatic bed	1	Present and either comprises small	
	2 Emergent	٠.	vegetation and is of moderate qu	
			significant part but is of low quality	
	Shrub			
	Forest	2	Present and either comprises signi	
	Mudflats		vegetation and is of moderate qu	ality or comprises a small
	Open water		part and is of high quality	
	Other	. 3	Present and comprises significant p	part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	
	Select only one.			
	High (5)	Marrativo D	escription of Vegetation Quality	
				ance of popportive or
	Moderately high(4)	low	Low spp diversity and/or predomina	
	Moderate (3)		disturbance tolerant native specie	
	Moderately low (2)	mod	Native spp are dominant componen	it of the vegetation,
	Low (1)		although nonnative and/or disturb	ance tolerant native spp
•	None (0)		can also be present, and species	diversity moderate to
	6c. Coverage of invasive plants. Refer		moderately high, but generally w/o	presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp	
	or deduct points for coverage	high	A predominance of native species, v	with nonnative enn
		mgn		• •
	Extensive >75% cover (-5)		and/or disturbance tolerant native	
	Moderate 25-75% cover (-3)		absent, and high spp diversity and	
	Sparse 5-25% cover (-1)		the presence of rare, threatened, of	or endangered spp
	Nearly absent <5% cover (0)			
	Absent (1)	Mudflat and	Open Water Class Quality	
	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	;)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 ac	res)
	Coarse woody debris >15cm (6in)	. 3	High 4ha (9.88 acres) or more	
	Standing dead >25cm (10in) dbh		11.1911 11.12 (0100 20100) 01 111010	
	Amphibian breeding pools	Microfonogr	aphy Cover Scale	
	T Amphibian presumg pools		Absent	
		0		
	• .	1	Present very small amounts or if more of marginal quality	
		. 2	Present in moderate amounts, but no quality or in small amounts of highe	
		3	Present in moderate or greater amoun	
			and of highest quality	•
116				

End of Quantitative Rating. Complete Categorization Worksheets.



ORAM v. 5.0 Field Form Quantitative Rating

Site:	WII	4-068	5		Rater(s):	JAF			Date:	9-25-18
	1	Metric	1. Wetl	and Ar	ea (size)					••
max 6 pts.	subtotal		size class and a >50 acres (>20.2 25 to <50 acres 0 to <25 acres 3 to <10 acres (1 0.3 to <3 acres (0 0.1 to <0.3 acres (0.1 acres (0.04)	2ha) (6 pts) (10.1 to <20. (4 to <10.1ha .2 to <4ha) 0.12 to <1.2l (0.04 to <0. ha) (0 pts)	2ha) (5 pts) a) (4 pts) (3 pts) na) (2pts) 12ha) (1 pt)	0.15				*
1	2	Metric	2. Upla	nd buf	fers and	surrou	nding	g land us	э.	
max 14.pts.	subtotal	2b. Intensit	VIDE. Buffers at MEDIUM. Buffer IARROW. Buffer IERY NARROW by of surrounding ERY LOW. 2nd OW. Old field (*10DERATELY HIGH. Urban, inc.	verage 50m s average 20 rs ave	Om to <25m (32 erage <10m (<32 Select one or do Ider forest, prairi hrub land, young	around wetlar to <164ft) arc off to <82ft) a off) around we uble check a e, savannah, g second grov sture, park, c	nd perimo nund weth round we etland pe nd avera wildlife a wih fores	eter (7) and perimeter (4) atland perimeter (4) arimeter (0) ge. area, etc. (7) t. (5) ion tillage, new fa	1).	÷ *
18	20	Metric	3. Hydro	ology.						
max 30 pts.	subtotal	3c. Maximu >0	.7 (27.6ln) (3) 4 to 0.7m (15.7 t .4m (<15.7in) (1	ater (5) r (3) ent surface water (lake of Select only of 27.6in) (2)	water (3)	core.	3d. Dura	Part of wetland/ Part of riparian tion inundation/sa Semi- to perma Regularly inund Seasonally inun Seasonally satu	lain (1)  n/lake and othe  upland (e.g. fo  or upland corricaturation. Scorn  nently inundate  ated/saturated  dated (2)	e one or dbl check. d/saturated (4) (3)
		Re Re	ne or none appa covered (7) covering (3) cent or no recov		theck all disturbation ditch tile dike welr stormwater		ed	point source (no filling/grading road bed/RR trad dredging other	A STATE OF THE PARTY.	
8	28	Metric	4. Habita	at Alter	ation and	d Deve	opm	ent.		
	ubtotal	Ab. Habitat de Constitution Good	ne or none appa covered (3) covering (2) cent or no recove evelopment. Se ellent (7) y good (6) d (5) lerately good (4)	rent (4) ery (1) lect only one	double check an	4.				
		Poo	r to fair (2) r (1)		V					
	8 I this page	Non Rec	eration. Score of e or none appar overed (6) overing (3) ent or no recove	ent (9) Ch	e check and aver eck all disturban mowing grazing clearcutting selective cutting woody debris toxic pollutant	ces observed	s h	hrub/sapling remerbaceous/aquatiedirnentation redging arming utrient enrichmen	c bed removal	

## **ORAM Summary Worksheet**

		circle answer or	Result
		insert score	Vezair
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered	YES NO	If yes, Category 3.
	Species  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	Metric 1. Size	1	
Rating	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	18	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	1	
	TOTAL SCORE	39	Category based on score breakpoints  MoDIFIED 2

Complete Wetland Categorization Worksheet.

## Wetland Categorization Worksheet

Choices	Circle one	1,320	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 <i>less</i> 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	<b>8</b>	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?	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 ecreational functions AND he wetland was not extegorized as a Category 2 wetland (in the case of noderate functions) or a category 3 wetland (in the ase of superior functions) by his method?	Wetland was 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, 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

MODIFIED

End of Ohio Rapid Assessment Method for Wetlands.

## **Background Information**

Name: JOHN FREELAND
Date:
$\frac{11-26-20/8}{\text{Affiliation:}}$
MANNIK & SMITH GROUP
Address: 1800 INDIAN WOOD CIRCLE, MAUMEE, 0H 43537
Phone Number: (4/9) 891 - 2222 × 2013
e-mail address: JFREELAND @ MANNIKSMITH GROWP. COM
Name of Wetland: $WIM = 069$
Vegetation Communit(ies):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate 41. 12-452, 82-85997
USGS Quad Name
County HURON
TOWNSHIP CENTERTON, TZN, RITE
Section and Subsection
Hydrologic Unit Code 04/000120503
Site Visit $9/26/20/8$
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey Soil Survey OF HURON County, OHIO  Delineation report/man
Delineation report/map  ATTACHED

Name of Wetland:	
Wetland Size (acres, hectares): 0.07 ACRE	
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
SEE ATTACHED WETLAND DELINERTINE	MAR
E - 0- 11	MITT,
SEE ATTACHED WETLAND DELINEATION FIGURE 4.	
No. of No	
mments, Narrative Discussion, Justification of Category Changes:	
nal score : Catago	

### 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.

IT	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.	YES	
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.	YES	
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.	YES.	·
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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"	THE RESERVE OF THE PARTY OF THE	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 had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	evaluated for possible Category 3 status Go to Question 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?	Wetland is a Category 3 wetland.	NO Go to Question 3
_	Documented High Quality Wetland. Is the wetland on record in	Go to Question 3	NO
	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 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	
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) on size and hydrologically isolated and either 1) comprised of	YES")	NO
	vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea, Lythrum salicaria,</i> or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	(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%?	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	YES	NO)
	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%?	Wetland is a Category 3 wetland	Go to Question 8a
		Go to Question 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	YES	NO
	projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100	Wetland is a Category 3 wetland.	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	

## WIM-069

	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	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NO
Ja	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Goto 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	YES	NO
	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	110
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	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.	Go to Question 9d	Go to Question 10
9d	Does the wotland have a predominance of native species within its	YES	NO
Ju	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	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	(NO)
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	YES  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	YES	NO.
	dominated by some or all of the species in Table 1. Extended on 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	Complete Quantitative Rating
	Month Golden And Andrews Control of the Manual Control of the Manu	Rating	

Table 1. Characteristic plant specie	es.
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Invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Vajas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 Trofieldia 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi, Calamagrostis stricte Carex atherode, Carex buxbaumi Carex pellita Carex sartwellt 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.

ORAM v. 5.0 Field Form Quantitative Rating Date: Rater(s): Site: Metric 1. Wetland Area (size). subtotal Select one size class and assign score. max 6 pts >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) CATEGORY / 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)</p> Metric 2. Upland buffers and surrounding land use. 2a. Calculate average buffer width. Select only one and assign score. Do not double check. subtotal max 14 pts. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) <u>Intensity</u> of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) LOW. Old field (>10 years), shrub land, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) Metric 3. Hydrology. 3b. Connectivity. Score all that apply. Sources of Water. Score all that apply. 3a. 100 year floodplain (1) High pH groundwater (5) Between stream/lake and other human use (1) Other groundwater (3) Part of wetland/upland (e.g. forest), complex (1) Precipitation (1) Part of riparian or upland corridor (1) Seasonal/Intermittent surface water (3) 3d. <u>Duration</u> inundation/saturation. Score one or dbl check. Perennial surface water (lake or stream) (5) Semi- to permanently inundated/saturated (4) Maximum water depth. Select only one and assign score. Regularly inundated/saturated (3) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) <0.4m (<15.7in) (1) Modifications to natural hydrologic regime. Score one or double check and average. Check all disturbances observed None or none apparent (12) Recovered (7) ₹ditch point source (nonstormwater) ₹tile filling/grading Recovering (3) road bed/RR track Recent or no recovery (1) dike weir dredging stormwater input other Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. subtotal None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Roor (1) 4c. Habitat alteration. Score one or double check and average Check all disturbances observed None or none apparent (9) shrub/sapling removal mowing Recovered (6) herbaceous/aquatic bed removal Recovering (3) grazing sedimentation clearcutting Recent or no recovery (1) selective cutting dredging woody debris removal farming nutrient enrichment toxic pollutants

7

last revised 1 February 2001 jjm

Site:		Rater(s):	Date:
su O	ubtotal first page  Metric 5. Special \	Wetlands.	•
max 10 pts.	subtotal Check all that apply and score as in Bog (10)	ndicated.	
	Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory sone	y wetland-unrestricted hy y wetland-restricted hydro (Oak Openings) (10) federal threatened or end	angered species (10)
	Category 1 Wetland. See	e Question 1 Qualitative F	Rating (-10)
2	17		erspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communiti		Community Cover Scale
	Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent		vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	Forest	2	Present and either comprises significant part of wetland's
	Mudflats		vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Other	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspers	sion.	vegetation and is of high quality
	Select only one.		
	High (5)	Narrative D	escription of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1)		although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Re	efer	moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list.	Add	threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5		and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-	·3)	absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)	,	the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover	(0)	The process of tale, alloadellou, of chadingelou opp
	Absent (1)	Mudflat and	Open Water Class Quality
	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)
	Vegetated hummucks/tuss	sucks 2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >150	cm (6in) 3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10		The state of the s
	Amphibian breeding pools		raphy Cover Scale
	' OF-110	0	Absent
		<u> </u>	Present very small amounts or if more common
		•	of marginal quality
		2	Present in moderate amounts, but not of highest
		-	quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
		J	and of highest quality
1			1 and of highest quality

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		
tainig	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	6	
	Metric 4. Habitat	3	
10	Metric 5. Special Wetland Communities	0	
10	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	13	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	(80)	Is quantitative rating score <i>less</i> 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	(40)	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  Welland is categorized as a Category 1 welland	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 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 ecreational functions AND he wetland was not exategorized as a Category 2 evetland (in the case of noderate functions) or a Category 3 wetland (in the case of superior functions) by his method?	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, 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.	

200000000000000000000000000000000000000		al Category	
Choose one	/ Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name: JOHN FREELAND
l Date:
11-26-2018 Affiliation: MANNIK & SMITH GROUP
Address:  1800 INDIAN WOOD CIRCLE, MAUMEE, OH 43537  Phone Number:
Phone Number: (4/9) 891-2222 × 20/3
e-mail address:  IFREE (AND Q MANNIKSMITH GROUP, COM
Name of Wetland: $WIM = 070$
Vegetation Communit(ies):
HGM Class(es):
DEPRESSION AL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate 41.12943, -82.84761
USGS Quad Name
County
TOWNSHIP FLAT ROCK T2N RITE
Section and Subsection
Hydrologic Unit Code 04/000/Z 0503
Site Visit 9 - 26 - 2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey  Soil Survey of HURON COUNTY, OHIO
Delineation report/map  ACTACHEO

etland Size (acres, hectares):	70	
etland Size (acres, hectares): etch: Include north arrow, relationsh	1.0 ACRE	
etch: Include north arrow, relationsh	ip with other surface waters, veg	getation zones, etc.
SEE ATTACHED	WETLAND	DELINIATION
MAP, FIGURE	4.	DELINIATION
nments, Narrative Discussion, Justific	cation of Category Changes:	
	1	

Category:

2

Final score:

52,5

## 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.

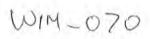
IT.,,	Steps in properly establishing scoring boundaries	done?	not applicable
# Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	
Step 2	Identify the locations where there is physical evidence that hydrology changes 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.	YES	
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.	YES	·
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 o a United States Geological Survey 7.5 minute Quadrangle that has	100000000000000000000000000000000000000	NO
	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).	Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
ī	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	8
	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES	(NO)
	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	
ï	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	-
	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
	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
-	Fore Is the wellend a carbon see would be for a law to the law.	Go to Question 7	0
	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)	YES	(NO)
	and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland	Go to Question 8a
_		Go to Question 8a	$\sim$
	"Old Growth Forest." Is the wetland a forested wetland and is the	YES	NO
	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	Wetland is a Category 3 wetland.	Go to Question 8b
	canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	Go to Question 8b	



8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
94	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	10
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	Go to Question 9c
		Go to Question 10	(NO)
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	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	Go to Question 11
11	type of wetland and its quality.  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 specles	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 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 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 Schechseria 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 canadensi Calamagrostis stricts Carex atherode Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi. 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.

ORAM v. 5.0 Field Form Quantitative Rating

Site:	Am	1000	Rater(s):	ABY	Date: g/	16/18
					γv	00 -
1 7 1	7 Me	etric 1. Wetland A	rea (size).	1	1 100 - 4	
max 6 pts.		ct one size class and assign scor	<b>-</b> 0	1	WM-670	
max o pro	L	>50 acres (>20.2ha) (6 pts)				
	-	25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1		102 5	CATEGOR	<i>)</i> >
	F	3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1.		(52.5	) Chilogolic	
	-	0.1 to <0.3 acres (0.04 to <				
		<0.1 acres (0.04ha) (0 pts)	ffore and co	urraundina	land usa	
4	( livie	tric 2. Upland bu	ileis aliu si	urrounding	i iaiiu use.	
max 14 pts.	subtotal 2a. C	Calculate average buffer width.				
	F	WIDE. Buffers average 50i MEDIUM. Buffers average				
		NARROW. Buffers average	e 10m to <25m (32ft	to <82ft) around we	tland perimeter (1)	
	L 2b. <u>Ir</u>	VERY NARROW. Buffers and use.				
		VERY LOW. 2nd growth or LOW. Old field (>10 years)				
		MODERATELY HIGH. Res	idential, fenced pastu	ure, park, conservati	ion tillage, new fallow field. (3)	
	Mo	HIGH. Urban, industrial, op		ping, mining, constri	uction. (1)	
16.5	22.5 IVIE	tric 3. Hydrology	•			
max 30 pts.	subtotal 3a. S	Sources of Water. Score all that	apply.	3b. <u>Conr</u>	nectivity. Score all that apply.	age a committee
	-	High pH groundwater (5) Other groundwater (3)		,	100 year floodplain (1)  Between stream/lake and other hun	nan use (1)
	( [	Precipitation (1) Seasonal/Intermittent surface	no water (2)		Part of wetland/upland (e.g. forest), Part of riparian or upland corridor (1	
	(	Perennial surface water (lal	(e or stream) (5)		ition inundation/saturation. Score one	or dbl check.
	3c. <u>M</u>	<u>Maximum</u> water depth. Select on >0.7 (27.6in) (3)	ly one and assign sco	ore.	Semi- to permanently inundated/sat Regularly inundated/saturated (3)	:urated (4)
	\	0.4 to 0.7m (15.7 to 27.6in)	(2)	1.5	Seasonally inundated (2)	- (40in) (4)
	3e. N	<0.4m (<15.7in) (1) Modifications to natural hydrologic	c regime. Score one	or double check and	Seasonally saturated in upper 30cm daverage.	T (TZIII) (T)
	Ė	None or none apparent (12)		ices observed	J	
	12	Recovered (7) Recovering (3)	ditch tile		point source (nonstormwater) filling/grading	
	L	Recent or no recovery (1)	dike weir		road bed/RR track dredging	
			stormwater in	ıput	other	
15)	✓ Me	tric 4. Habitat Alt	teration and	l Developm	nent.	-
	<u>L10.5</u> IVIE					
max 20 pts.	subtotal 4a. S	Substrate disturbance. Score one None or none apparent (4)	e or double check and	d average.		
	4	Recovered (3) Recovering (2)				
	` <u> </u>	Recent or no recovery (1)				
	4b. H	labitat development. Select only Excellent (7)	one and assign scor	e.		
		Very good (6) Good (5)				
	5 1	Moderately good (4)				
		Fair (3) Poor to fair (2)				
	4c H	Poor (1) labitat alteration. Score one or d	ouble check and aver	rane		
	Б	None or none apparent (9)	Check all disturban			1
	9 F	Recovered (6) Recovering (3)	mowing grazing		shrub/sapling removal herbaceous/aquatic bed removal	
		Recent or no recovery (1)	clearcutting		sedimentation	
	45-		selective cutti woody debris		dredging farming	
euht.	otal this page		toxic pollutan		nutrient enrichment	
	February 2001	l jjm				Ü.

Site:		Rater	(s):		Date:
SI	40.5	Ť			
0	40.5	Metric 5. Special Wetlan	ds.		
max 10 pts.	subtotal	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or 1 Qualitative R	logy (5) ungered species (10) usage (10) ating (-10)	
12	52.5	Metric 6. Plant communi			pography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.		Community Cover Scale	***************************************
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	
		Aquatic bed	1	Present and either comprises sma	•
		Emergent Shrub		vegetation and is of moderate qu	•
		Z Forest	2	significant part but is of low qual  Present and either comprises sign	
		Mudflats	2	vegetation and is of moderate qu	
		Open water		part and is of high quality	dailty of comprises a small
		Other	3	Present and comprises significant	nart or more of wotland's
		6b. horizontal (plan view) Interspersion.	3	vegetation and is of high quality	part, or more, or wettand's
		Select only one.		vegetation and is of high quality	
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predomin	ance of nonnative or
		Moderate (3)	1011	disturbance tolerant native speci	
		Moderately low (2)	mod	Native spp are dominant compone	
		Low (1)		although nonnative and/or distur	
		None (0)		can also be present, and species	
		6c. Coverage of invasive plants. Refer		moderately high, but generally w	
		to Table 1 ORAM long form for list. Add		threatened or endangered spp	·
		or deduct points for coverage	high	A predominance of native species,	with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant nativ	e spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity ar	nd often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened	, or endangered spp
		Nearly absent <5% cover (0)			
		Absent (1)		Open Water Class Quality	
		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 acr	
		/ Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
		Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopog	aphy Cover Scale	
		t 2. ooding pools	0	Absent	
			1	Present very small amounts or if m of marginal quality	nore common
			2	Present in moderate amounts, but quality or in small amounts of hig	
			3	Present in moderate or greater am	
				and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-070

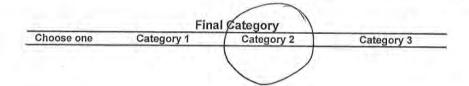
## **ORAM Summary Worksheet**

		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	
, 1241119	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	16.5	
	Metric 4. Habitat	16	
	Metric 5. Special Wetland Communities	ð	
	Metric 6. Plant communities, interspersion, microtopography	12	
	TOTAL SCORE	52,5	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	(10)	Is quantitative rating score <i>less</i> 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	(O)	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?	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 his method?	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, 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.



End of Ohio Rapid Assessment Method for Wetlands.



## Background Information

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Date: 11-26-2018
Affiliation: MANNIK & SMITH GROUP
I Address:
Phone Number: C A DIANUSCOD CIRCLE, MAUMEE, OH
Phone Number: (4/9) 89/- ZZZZ × 20/3
e-mail address: JFREELAND @ MANNIKSMITHGROUP, COM
Name of Wetland: WIM - 07/
Vegetation Communit(ies):
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate 41, 13/23, -82, 847//
USGS Quad Name
County HURON
Township FLAT ROCK TZN R17E
Section and Subsection
Hydrologic Unit Code 041000120503
Site Visit 9 / 26 / 2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SOIL SURVEY OF HURON COUNTY OHIO
Delineation report/map  ACTACHE

Name of Wetland:	1-071	
Wetland Size (acres, hectares	0.05 ACR	E
Sketch: Include north arrow,	relationship with other surface waters,	, vegetation zones, etc.
SEE ATTA	CHED WETLAN	O DELINEATION
MAP, FI	GURE 4.	
omments, Narrative Discussion	on, Justification of Category Changes:	
	64 (4.1 A 1.1	
	10	
nal score :	48	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.	YES	
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.	YES	
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.	YES	
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.	YES.	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	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?	Wetland is a Category 3 wetland.	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	Go to Question 3 YES Wetland is a Category 3 wetland Go to Question 4	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
	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?	Go to Question 5 YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 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
	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
	"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

-	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
8b	Mature forested weather forest canopy consisting of 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	
-	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
9a	an elevation less than 575 feet on the USGS map, adjacent to this	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	Go to Question 9c
		Go to Question 10	0
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	Go to Question 10
9d	Described have a predominance of native species will lift its	YES	(NO)
90	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	D 0
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
	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
10	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
-	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO
11	Reflict Wet Prairies. Is the wetafild a fellot wet plants 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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium marocarpon Vaccinium oxyeoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa 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 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.

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	YES  Wetland should be evaluated for possible	Go to Question 9a
	diameters greater than 45cm (17.7in) dbh?	Category 3 status.  Go to Question 9a	
	the water death at	YES	NO
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Co-to Question 10
	Does the wetland's hydrology result from measures designed to	YES	(NO)
9b	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	
	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	(NO)
9c	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 isolated sandlar denosition wetlands, estuarine wetlands, river mouth	Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.	YES	(NO)
9d	Does the wetland have a predominance of native species within its	123	
	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	
	dicturbance	YES	NO
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	125	
	tolerant native plant species within its vegetation commented.	Wetland should be	Go to Question 10
	,	evaluated for possible	
		Category 3 status	
		0 1 0 1 10	
		Go to Question 10	NO)
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES (	1 100
	Lucas Eulton Henry or Wood Counties and can the Wetland be	Wetland is a Category	Go to Question 11
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within	3 wetland.	
	substrate with interspersed organic matter, a water table of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the surface, and often with a dominance of the several inches of the several inch		
	graminous vegetation listed in Table 1 (Woody species may also be	Go to Question 11	
	The Object Department of Natural Resources Division of		
	Natural Areas and Preserves can provide assistance in confirming this		
	type of wetland and its quality.	VEC	NO
11	D. V. 1 Wet Provided Is the wetland a relict wet prairie community	YES	
	dominated by some or all of the species in Table 1. Extensive prairies	Wetland should be	Complete
	were formarly located in the Darby Plains (Madison and Union	evaluated for possible	Quantitative
	Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	- ·	
	Montgomery, Van Wert etc.).	Complete Quantitative	
	Montgomery, van vven eter,	Rating	

Table 1. Characteristic pla	nt species.
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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 Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhannus 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 Schechseria 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 canadensi Calamagrostis strict Carex atherode Carex buxbaum. Carex pelliti Carex sartwelli Gentiana andrewsis Helianthus grosseserratu. 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.

Site:	A THOU	1000		Rater(s):	AFR		Date: 9	1/26/18
6		letric 1.	Wetland A	rea (size).	: W(V	N-071		l '
max 6 pts.	subtotal Se	>50 ac 25 to < 10 to < 3 to <1 0.3 to <	class and assign score (>20.2ha) (6 pts) (50 acres (10.1 to <20 acres (4 to <10.1 to ) acres (1.2 to <4ha) (3 acres (0.12 to <1.2 to <4.3 acres (0.04 to <0 acres (0.04 to ) (0 pts)	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)	(		ATEG	ORY
7	7	letric 2.	Upland bu	ffers and	surroundi	ng land use.		
max 14 pts.	2b	WIDE.  WEDIL  NARR  VERY  Intensity of s  VERY  LOW.  MODE  HIGH.	OW. Buffers average NARROW. Buffers a surrounding land use. LOW. 2nd growth or Old field (>10 years)	n (164ft) or more 25m to <50m (82 : 10m to <25m (3 verage <10m (<3 Select one or do older forest, prair shrub land, your idential, fenced p en pasture, row c	around wetland pe to <164ft) around ' :2ft to <82ft) around ' :2ft) around wetlan- ouble check and av ie, savannah, wild ig second growth f asture, park, conse	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) orest. (5) ervation tillage, new fallo	ow field. (3)	
17	24		,					
max 30 pts.	) 3c	High p Other Precip Seaso Perenr Maximum w >0.7 (2 0.4 to	Vater. Score all that a H groundwater (5) groundwater (3) itation (1) nal/Intermittent surfactival surface water (laborater depth. Select on 27.6in) (3) 0.7m (15.7 to 27.6in) (<15.7in) (1) s to natural hydrologic	e water (3) e or stream) (5) ly one and assign	3d. score.	Part of riparian o Duration inundation/sat Semi- to perman Regularly inunda Seasonally inunda Seasonally satur	nin (1)  lake and other  pland (e.g. for  r upland corrice  uration. Score  ently inundate  ted/saturated  lated (2)	rest), complex (1) dor (1) e one or dbl check. ed/saturated (4) (3)
	12	None of Recov	or none apparent (12) ered (7) ering (3) t or no recovery (1)		bances observed	point source (nor filling/grading road bed/RR tracdedging other_		_
18 max 20 pts.	40	. "Substrate di	Habitat Alf			pment.		
	+	None of Recover Recover Recent Recover Recent Recover Recover Recover Recovery Good Moder Fair (3	or none apparent (4) ered (3) ering (2) t or no recovery (1) elopment. Select only ent (7) ood (6) (5) ately good (4) o fair (2)					
	40		ation. Score one or o or none apparent (9)		average. rbances observed		<u>. v. 10. m. v. 10. m. n. 11. m. n</u>	
	Jubtotal this page	Recov Recov Recen	ering (3) t or no recovery (1)	mowing grazing clearcutti selective	ng cutting bris removal	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichma	atic bed remo	val

	5.0 1 ICIG 1	OIIII Qu	andialive Rading			
Site:				Rater(s):		Date:
s O	42 Subtotal first p	<b>−</b> ĭ	tric 5. Special W	etlands.		
max 10 pts.	subtotal	Chack	all that apply and soors as indi-	20124		
	CGSONA	Check	all that apply and score as indice Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlake Erie coastal/tributary wetlake Plain Sand Prairies (Omega Relict Wet Prairies (10) Known occurrence state/fed Significant migratory songbill Category 1 Wetland. See Q	vetland-unrestricted l vetland-restricted hyd ak Openings) (10) eral threatened or er rd/water fowl habitat	Irology (5) Irology (5) Irology (5) Irology (10) Irology (10) Irology (10)	
6	48	Met	tric 6. Plant com	munities, ir	terspersion, microto	opography.
max 20 pts.	subtotal	່ 6a. W	etland Vegetation Communities.	Vegetatio	n Community Cover Scale	
			all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	471 acres) contiguous area
			Aquatic bed Emergent Shrub	1	Present and either comprises sm vegetation and is of moderate of	all part of wetland's quality, or comprises a
		\ 2	<b>⊣</b> _	2	significant part but is of low qua Present and either comprises sig	
			Mudflats Open water		vegetation and is of moderate of part and is of high quality	
		6b. ho	Other rizontal (plan view) Interspersion	3	Present and comprises significan vegetation and is of high quality	
			only one.			
		-	High (5) Moderately high(4)		Description of Vegetation Quality	
			Moderate (3)	low	Low spp diversity and/or predomined disturbance tolerant native specific sp	
	•		Moderately low (2)	mod	Native spp are dominant compone	
		L	Low (1)		although nonnative and/or distu	rbance tolerant native spp
		6c Co	☑None (0) verage of invasive plants.  Refe	_	can also be present, and specie	
			e 1 ORAM long form for list. Ad		moderately high, but generally we threatened or endangered spp	w/o presence of rare
		or dedu	ct points for coverage	high	A predominance of native species	, with nonnative spp
		-	Extensive >75% cover (-5)		and/or disturbance tolerant nativ	e spp absent or virtually
			Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity a	nd often, but not always,
			Nearly absent <5% cover (0)		the presence of rare, threatened	i, or endangered spp
		$\geq$	Absent (1)	Mudflat ar	d Open Water Class Quality	
			rotopography.	0	Absent <0.1ha (0.247 acres)	
		Score a	Il present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	
		1	Vegetated hummucks/tussuc Coarse woody debris >15cm		Moderate 1 to <4ha (2.47 to 9.88	acres)
		Ь	Standing dead >25cm (10in)		High 4ha (9.88 acres) or more	
		ħ	Amphibian breeding pools		graphy Cover Scale	
				0	Absent	
				1	Present very small amounts or if n of marginal quality	nore common
				2	Present in moderate amounts, but quality or in small amounts of high	
				3	Present in moderate or greater and	· · · · · · · · · · · · · · · · · · ·

48

End of Quantitative Rating. Complete Categorization Worksheets.

and of highest quality

## **ORAM Summary Worksheet**

		_ t I -	
		circle	
		answer or	Result
		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 (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	7	
	Metric 3. Hydrology	17	
	Metric 4. Habitat	18	
	Metric 5. Special Wetland Communities	<b>O</b> .	
	Metric 6. Plant communities, interspersion, microtopography	C	
	TOTAL SCORE	48	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 scorin 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	МО	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	000	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 ecreational functions AND he wetland was not eategorized as a Category 2 vetland (in the case of noderate functions) or a Category 3 wetland (in the lase of superior functions) by his 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: JOHN FREELAND
Date: 11-26-2018
Affiliation: MANNIK & SMITH GROUP
Address:  1800 INDIAN WOOD CIRCLE, MAUMEE, 0H 43537  Phone Number:
Phone Number: (4/9) 891-2222 × 2013
e-mail address: JFREELAND @ MANNIK SMITHGROUP. COM
Name of Wetland: WIM - 072
Vegetation Communit(les):
HGM Class(es): NEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED WETLAND LOCATION
MAP FIGURE 4.
<b>,</b>
Lat/Long or UTM Coordinate 41.12928, -82.82348
USGS Quad Name
County
TOWNSHIP FLAT ROCK T2N, R24W
Section and Subsection
Hydrologic Unit Code 041000120503
Site Visit 9-26-2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SOIL SURVEY OF HURON COUNTY, OH
Delineation report/map  ATTACH F

WIM _072			
Netland Size (acres, hectares): 6.03 Sketch: Include north arrow, relationship with other	ACRE		
Sketch: Include north arrow, relationship with other	surface waters, ve	getation zones, etc.	
	11-10	N=1.150	
SEE ATTACHED WET. MAP, FIGURE 4.	LEND	DELINEA	11010
1110 FIGURE 4			
MAT, FIGURE 1.			
mments. Narrative Discussion, Justification of Cate	gory Changes:		
mments, Narrative Discussion, Justification of Cate	gory Changes:		
mments, Narrative Discussion, Justification of Cate	egory Changes:		
mments, Narrative Discussion, Justification of Cate	egory Changes:		
mments, Narrative Discussion, Justification of Cate	gory Changes:	Ĥ	
mments, Narrative Discussion, Justification of Cate	egory Changes:	9	
mments, Narrative Discussion, Justification of Cate	egory Changes:	ii	
mments, Narrative Discussion, Justification of Cate	egory Changes:	9	
mments, Narrative Discussion, Justification of Cate	egory Changes:	Ĥ	
mments, Narrative Discussion, Justification of Cate	egory Changes:	9	
mments, Narrative Discussion, Justification of Cate	egory Changes:	e e e e e e e e e e e e e e e e e e e	
mments, Narrative Discussion, Justification of Cate	egory Changes:	Ĥ	
mments, Narrative Discussion, Justification of Cate	egory Changes:	9	
mments, Narrative Discussion, Justification of Cate	egory Changes:		
mments, Narrative Discussion, Justification of Cate	egory Changes:	9	
mments, Narrative Discussion, Justification of Cate	egory Changes:		
mments, Narrative Discussion, Justification of Cate	egory Changes:		

WIM-072

### 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.

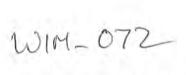
Ir	Steps in properly establishing scoring boundaries	done?	not applicable
# Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. 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.	YES	
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.	YES	·
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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		
27,	1 - 22/4 - 10/2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	13	
1	Critical Habitat. Is the wetland in a township, section, or subsection 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 plove has had critical habitat proposed (65 FR 41812 July 6, 2000).	Wetland should be evaluated for possible Category 3 status  Go to Question 2	Go to Question:	
	Threatened or Endangered Species. Is the wetland known to contai 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	gory Go to Question :	
	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  One of the Question of th		
	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Go to Question 4 YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 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	
	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	
	"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 canoples; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES	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
	MICH White property and the later and	Go to Question 9a	(NO)
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	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
	and the developed influence	Go to Question 10 YES	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	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	NO Go to Question 9e
	X-2-3-4-1-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3	3 wetland  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
	the second secon	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	YES  Wetland is a Category 3 wetland.  Go to Question 11	Go to Question 11
	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO )
11	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 Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 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 Schechseria 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 canadensi Calamagrostis strict Carex atherode Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi 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.

Site:	A332	60	Rater(s): Atp		Date: 9/26/18
0	Me	tric 1. Wetland A	rea (size).	(111M-100	1
max 6 pts.	-	2t one size class and assign scor >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2.1 to <2.2 to <50 acres (4 to <10.1 to <2.1 to <4ha ones (1.2 to <4ha ones (0.12 to <1.1 to <0.3 to <3 acres (0.04 to <0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts) ) (3 pts) 2ha) (2pts)	WIM- 572 DI MODIF CATEGO	DRY Z
4	4 Me	tric 2. Upland bu	ffers and surround	ing land use.	
max 14 pts.		WIDE. Buffers average 50r MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers antensity of surrounding land use VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign score. In (164ft) or more around wetland p 25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland Select one or double check and a colder forest, prairie, savannah, will, shrub land, young second growth didential, fenced pasture, park, consider pasture, row cropping, mining, or	erimeter (7) I wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
16	20 Me	tric 3. Hydrology	•		
max 30 pts.	subtotal 3a. S	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lakelaximum water depth. Select on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <a href="#">&lt; &lt; O.4m (&lt;15.7in) (1)</a> Modifications to natural hydrologic	ce water (3) se or stream) (5) ly one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	in (1) ake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
	12	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (none filling/grading road bed/RR track dredging other_	
17	37 Me	tric 4. Habitat Alf	teration and Develo	pment.	
max 20 pts.	4	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) labitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
	4c. H	abitat alteration. Score one or d	ouble check and average.  Check all disturbances observed		
	37 lotal this page February 2001	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmen	tic bed removal

Site:		Rater(	s):	Date:	
	37				
0	37	Metric 5. Special Wetland	ds.		
max 10 pts.	subtotal	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-ur Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openii Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water f Category 1 Wetland. See Question 1	estricted hydro ngs) (10) atened or enda fowl habitat or Qualitative R	logy (5)  ungered species (10) usage (10) ating (-10)	
5	42	Metric 6. Plant communi	ties, int	erspersion, microtopography.	
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area	
		Aquatic bed	1	Present and either comprises small part of wetland's	—
		Emergent		vegetation and is of moderate quality, or comprises a	
		Shrub		significant part but is of low quality	
		2 Forest	2	Present and either comprises significant part of wetland's	—
		Mudflats	4		
		<b>————</b>		vegetation and is of moderate quality or comprises a small	
		Open water		part and is of high quality	
		Other	3	Present and comprises significant part, or more, of wetland's	
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	
		Select only one.			
		High (5)	Narrative De	escription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or	_
		Moderate (3)		disturbance tolerant native species	
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,	—
		Low (1)		although nonnative and/or disturbance tolerant native spp	
		None (0)		can also be present, and species diversity moderate to	
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare	
		to Table 1 ORAM long form for list. Add		threatened or endangered spp	
		or deduct points for coverage	high		
			high	A predominance of native species, with nonnative spp	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually	
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,	
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp	
		Nearly absent <5% cover (0)			
		Absent (1)		Open Water Class Quality	
		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)	
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
		Standing dead >25cm (10in) dbh  Amphibian breeding pools	Microtopogr	raphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if more common of marginal quality	
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	
			3	Present in moderate or greater amounts and of highest quality	

42

End of Quantitative Rating. Complete Categorization Worksheets.

WIM\_072

## **ORAM Summary Worksheet**

		circle	
		answer or	
		insert	Result
		sco <u>r</u> e	
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	4	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	17	
	Metric 5. Special Wetland Communities		
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	42	Category based on score breakpoints

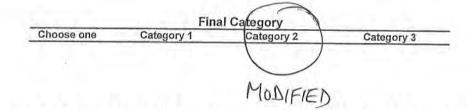
MODIFIED

Complete Wetland Categorization Worksheet.

#### 2

# 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 scorir 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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	(NÔ)	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?	YES  Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative oriteria	·	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?		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.



End of Ohio Rapid Assessment Method for Wetlands.

WIM-073/074/075

MODIFIED

CATEGORY Z

## Background Information

Name:  JOHN FREELAND	
Date: 11/26/2018	
Affiliation	
Address:  MANNIK & SMITH GROUP  Address:	-
Phone Number: ( ) NOIANWOOD CINCLE, MAUMEE, OH 4357	7
(4/9) 891-2222 X 2013	-
e-mail address: JFREELAND WHANNIKSMITHGROUP.	COM
Name of Wetland: $\omega_{IM} = 073/074/075$	
Vegetation Communit(ies):	
HGM Class(as):	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	1
SEE ATTACHED LOCATION MAP, FIGURE Y.	
i	
·	
Lat/Long or UTM Coordinate 41, 130 83, -82, 82 403	
USGS Quad Name	
County	
Township O The Control of the Contro	
Section and Subsection  FLAT ROCK 72N, RZYW	
Hydrologic Unit Code	
0 4 00 0 1 C 0 3 0 3	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
SOIL SURVEY OF HURON COUNTY, OH	
Delineation report/map  ATTACIFED	

Name of Wetland:				
- I I I I I I I I I I I I I I I I I I I	win-	-073/074	1/075	
Netland Size (acre	s, hectares):	0.05 ACRE	TOTAL	
Sketch: Include no	rth arrow, relationsh	ip with other surface wat	ters, vegetation zones, etc.	
		- 0.10	25/10/51	1 44 4 0
SEE AT	TACHED	MEILLAND	DELINEATION	MAP
FICURE	- 4		DELINEATION	
IGURE	. 7"			
				4
nments, Narrative	NAME OF TAXABLE PARTY.	cation of Category Chang	jes:	
nments, Narrative	NAME OF TAXABLE PARTY.		jes:	
nments, Narrative	NAME OF TAXABLE PARTY.		jes:	
nments, Narrative	NAME OF TAXABLE PARTY.		ges:	
nments, Narrative	NAME OF TAXABLE PARTY.		jes:	
nments, Narrative	NAME OF TAXABLE PARTY.		jes:	
nments, Narrative	NAME OF TAXABLE PARTY.		jes:	
nments, Narrative	NAME OF TAXABLE PARTY.		jes:	
nments, Narrative	NAME OF TAXABLE PARTY.		jes:	
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nments, Narrative	NAME OF TAXABLE PARTY.		ges:	
nments, Narrative	NAME OF TAXABLE PARTY.		ges:	
mments, Narrative	NAME OF TAXABLE PARTY.		Category:	

WIM-073/074/075

## 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.

Ir	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.	YES	
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.	YES	
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.	YES	·
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.	KES.	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).	Wetland should be evaluated for possible Category 3 status	Go to Question
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?	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
	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
	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
	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	NO 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	NO Go to Question 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?	Go to Question 8a YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

		YES	I(NO)
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	10
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NO
	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Go to Question 10
9b	b the wattend's hydrology result from measures designed to	YES	(NO.)
70,	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	$\sim$
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
50	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 the sandbar deposition wetlands, estuarine wetlands, river mouth the sandbar deposition wetlands.	Go to Question 9d	Go to Question 10
9d	t - u - u - u - d basse a prodominance of native species willill its	YES	NO
Su	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	100
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
50	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
	The state of the s	Go to Question 10	A
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO.
10	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	to the westland a relict wet prairie community	YES	(NO)
917	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.).	Rating	

Table 1. Characteristic plant species	Table 1.	Characteristic plant species.
---------------------------------------	----------	-------------------------------

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Palaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kaimii 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 chinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechseria 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 canadensi Calamagrostis strict Carex atherode Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi 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.

ORAM v. 5.0 Field Form Quantitative Rating

Site:	A 3	920001		Rater(s):	AEP		Date: 1/20	0/18
							,,	li i
	$\sim$	Metric 1.	Wetland A	rea (size)	).	WIM- WIM-		
0	$\mathcal{O}$			` '		-1/1/1/1	073	
max 6 pts.	subtotal		class and assign scor			00.1		
			cres (>20.2ha) (6 pts) <50 acres (10.1 to <2			1 . 0	40010	-> (Nec
		10 to	<25 acres (4 to <10.1	ha) (4 pts)		1/1/1/1-	0196	
			10 acres (1.2 to <4ha <3 acres (0.12 to <1.			0 0 11 1	, 16	Marco l
			<0.3 acres (0.04 to <			$\mathcal{W}/\mathbb{N}$	-6757	Who .
			acres (0.04ha) (0 pts)	_			0/5/	5
	7	Metric 2.	Upland bu	ffers and	surround	ing land use.		D 2000
max 14 pts.	subtotal	2a Calculato a	verage buffer width. S	Select only one a	nd assign score D	o not double check		1 0
пах 14 різ.	Subtotal	WIDE	. Buffers average 50i	m (164ft) or more	e around wetland pe	erimeter (7)		tright
		MEDI	UM. Buffers average	25m to <50m (8)	2 to <164ft) around	wetland perimeter (4)		lug
		NARF VERV	ROW. Buffers average NARROW. Buffers a	e 10m to <25m ( average <10m (<	32π to <82π) aroun 32ft) around wetlan	d wetland perimeter (1) d perimeter (0)		V
		2b. Intensity of	surrounding land use.	<ul> <li>Select one or o</li> </ul>	double check and a	verage.		
		VERY	LOW. 2nd growth or Old field (>10 years)	r older forest, pra	iirie, savannah, wild	life area, etc. (7)		
		MODE	ERATELY HIGH. Re	sidential, fenced	pasture, park, cons	ervation tillage, new fall	ow field. (3)	
		<b></b> HIGH	. Urban, industrial, or	oen pasture, row	cropping, mining, c	onstruction. (1)		
1/-		Metric 3.	Hydrology	<b>7.</b>				
16	20							
max 30 pts.	subtotal		Water. Score all that	apply.	3b.	Connectivity. Score all 100 year floodpla		
			oH groundwater (5) groundwater (3)		1		lake and other hum	ian use (1)
	)	Precip	oitation (1)		( -		ipland (e.g. forest),	
			onal/Intermittent surfa Inial surface water (lal		3.4	Duration inundation/sal	r upland corridor (1)	
			ater depth. Select or			Semi- to perman	ently inundated/sat	
		>0.7 (	(27.6in) (3)		٠,		ited/saturated (3)	
	,		0.7m (15.7 to 27.6in) า (<15.7in) (1)	(2)	ľ	Seasonally inund	ated (2) ated in upper 30cm	(12in) (1)
		3e. Modification	ns to natural hydrologi	ic <u>regime. Score</u>	one or double ched			ส
			or none apparent (12	′    <del> </del>	urbances observed	, ,		* -
	ton.		vered (7) vering (3)	ditch tile		point source (nor filling/grading	nstormwater)	
			nt or no recovery (1)	dike		road bed/RR trac	ck	
				weir	4	dredging	*	
					ter input	other		
16	21	Metric 4.	.  Habitat Al	teration a	and Develo	pment.		
	3 b							
max 20 pts.	subtotal		listurbance. Score on or none apparent (4)	e or double chec	k and average.			
			vered (3)					
			vering (2)					
		4b Habitat dev	nt or no recovery (1) elopment. Select only	v one and assign	score.			
		Excel	lent (7)	, ,				
		Very (	good (6) (5)					
			rately good (4)					
		Fair (						
		Poor	to fair (2) (1)					
			ration. Score one or o	d <u>ouble check and</u>	d average.			ส
			or none apparent (9)		urbances observed	about 7 Pr		
			vered (6) vering (3)	mowing grazing		shrub/sapling rei	moval atic bed removal	,
			nt or no recovery (1)	clearcut	ting	sedimentation		
	7.				e cutting	dredging farming		
	56			toxic po	lebris removal Ilutants	nutrient enrichm	ent	
SU	ubtotal this pag	ge						]
last revised	1 Februar	y 2001 jjm	•					

Site:		Rater	(s):	Date:	
sut	36 btotal first p	Metric 5. Special Wetlan	ds.		
may 10 pts	20	Observation in the state of the			
max 10 pts.	subtotal	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-Lake Erie coastal/tributary wetland-Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)	
max 20 pts.	4 l			erspersion, microtopography.	
max 20 pts.	subtotal	6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.		Community Cover Scale	
		Aquatic bed Emergent Shrub	1	Absent or comprises <0.1ha (0.2471 acres) contiguous are Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality	<u>a</u>
		Torest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality	all
		Other  6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland vegetation and is of high quality	's
		Select only one. High (5)	Narrativa Da	annulation of Voluntation On III	
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species	
		Moderately low (2) Low (1) None (0)	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp	)
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp	
		or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp	
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more	
		Standing dead >25cm (10in) dbh  Amphibian breeding pools		aphy Cover Scale	
		LO 1L	0	Absent	
			1	Present very small amounts or if more common of marginal quality	
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	
			3	Present in moderate or greater amounts	

End of Quantitative Rating. Complete Categorization Worksheets.

WIM- 073/074/075

# **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	
raang	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	16	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	4/	Category based on score breakpoints  1001FIED 2

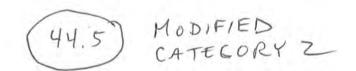
Complete Wetland Categorization Worksheet.

# 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 <i>less</i> than the Category 2 scorir 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 usin either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessment 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 he wetland was not exategorized as a Category 2 wetland (in the case of noderate functions) or a Category 3 wetland (in the case of superior functions) by his 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, 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.

	Catogory 4	Category 2	Cotonon
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

Name: JOHN FREELAND
Date: 11-26-2018
Affiliation: MANNIK & SMITH GROUP
Address: 1800 INDIANWOOD CIRCLE, MAUMEE, OH 4353
Phone Number: (419) 891 - 2222 × 2013
e-mail address: JEREELAND @ MANNIKSMITHGROUP. COM
Name of Wetland: WIM - 076
Vegetation Communit(ies):
HGM Class(es): RIVERINE/DEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
_at/Long or UTM Coordinate 41. 11771, -82. 81707
JSGS Quad Name
County HURON
OWNSHIP CENTERTON TIN RZ4W
Section and Subsection
lydrologic Unit Code 041000 120502
9 / 26/20/8
lational Wetland Inventory Map
hio Wetland Inventory Map
OIL SURJEY OF HARON COUNTY, OH
elineation report/map  ATTA CHED

Name of Wetland: Name of Wetland:

Wetland Size (acres, hectares): 3,5 ACRE

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. SEE ATTACHED WETLAND DELINEATION
MAP, FIGURE 4. Comments, Narrative Discussion, Justification of Category Changes:

Final score:

44.5

Category:

MODIFIED

## 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.

<u></u>	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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	17.72.50.00	1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	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).	Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 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
	Documented High Quality Wetland. Is the wetland on record in	Go to Question 3	1
	Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland	Go to Question 4
		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	Go to Question 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
	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
-	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	Go to Question 7 YES	1110
	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%?	Wetland is a Category 3 wetland Go to Question 8a	Go to Question 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	Go to Question 8b

			3
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	Go to Question 9a
	diameters greater trian 455m (17.7m) 42m	Category 3 status.	
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NO
	an elevation less than 575 feet on the USGS map, adjacent to this	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	100	
	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,	YES	NO
50	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	Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	NO
9d	vegetation communities, although non-native or disturbance tolerant		Go to Question 9e
	native species can also be present?	Wetland is a Category 3 wetland	GO to does to Lase
		0. 1. 0	
	Does the wetland have a predominance of non-native or disturbance	Go to Question 10 YES	NO
9e	tolerant native plant species within its vegetation communities?	Mar of the social has	Go to Question 10
		Wetland should be evaluated for possible	Go to Question to
		Category 3 status	
		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	Wetland is a Category	Go to Question 11
	l substrate with interspersed organic matter, a water table οπεί within	3 wetland.	
	several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be	Go to Question 11	
	The Obje Department of Natural Resources DIVISION OF		
	Natural Areas and Preserves can provide assistance in collinning this	(	
11	type of wetland and its quality.  Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NÒ
	dominated by some or all of the species in Table 1. Extensive prairies	Wetland should be	Complete
	were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion	evaluated for possible	Quantitative
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, vvood Counties),	Category 3 status	Rating
	and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	Complete Quantitative	
	Montgomery, van Front Story.	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 Cacalia plantaginea Carex flava 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 Trielochin 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 sartwellii Gentiana andrewsii 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.

parameter	.0 Field Fo	rm Quantitative F	cating		A = 2		D-1	0/-1//21
Site:	H.	28/200		Rater(s):	HEY		Date:	9/20//8
3	3	Metric 1.	Wetland A	area (size).		( 1 / 1 / 1 )	11.	
max 6 pts.		>50 ac 25 to < 10 to < 3 to <1 0.3 to 0.1 to <0.1 a	class and assign sco cres (>20.2ha) (6 pts 50 acres (10.1 to <2 25 acres (4 to <10.1 10 acres (1.2 to <4ha <3 acres (0.12 to <1. <0.3 acres (0.04 to < cres (0.04ha) (0 pts)	) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) -0.12ha) (1 pt)	(44.5)	WM- t W/A- MODIFIE	D CA	TEGORY
4	17	Metric 2.	Upland bu	iffers and	surroundin	g land use.		
max 14 pts.		WIDE. MEDIL WARR VERY 2b. Intensity of s LOW. MODE	NARROW. Buffers surrounding land use LOW. 2nd growth o Old field (>10 years	Im (164ft) or more as 25m to <50m (82 to 16 to <50m (82 to 16 to 1	around wetland perir to <164ft) around we 2ft to <82ft) around ve 2ft) around wetland i uble check and ave e, savannah, wildlife g second growth for sture, park, conserv	neter (7) etland perimeter (4) wetland perimeter (1) perimeter (0) rage. e area, etc. (7) est. (5) vation tillage, new falle	ow field. (3)	
22	29	Metric 3.	Hydrology	/.				
max 30 pts.	9	High p Other Precip Seaso Perenr 3c. Maximum wa >0.7 (2 0.4 to <0.4 to <0.4 to	Vater. Score all that H groundwater (5) groundwater (3) itation (1) nal/Intermittent surfatial surface water (later depth. Select or 27.6in) (3) 0.7m (15.7 to 27.6in) (<15.7in) (1) s to natural hydrolog	ace water (3) lke or stream) (5) nly one and assign ) (2)	3d. Do score.	Part of wetland/u Part of riparian o uration inundation/sat Semi- to perman Regularly inunda Seasonally inunc Seasonally satur	ain (1) lake and oth pland (e.g. for upland corr uration. Sco ently inundat ted/saturated lated (2)	ore one or dbl check. ted/saturated (4) d (3)
	t i	None of Recov	or none apparent (12 ered (7) ering (3) t or no recovery (1)		pances observed	point source (nor filling/grading road bed/RR tracdredging other_	•	
9.5	38.5	Metric 4.	Habitat Al	teration ar	nd Develop	ment.		
max 20 pts.	subtotal	None of Recover Recove	ood (6) (5) ately good (4) ) o fair (2)	y one and assign s	core.	·		
SL	38.5	Recov Recov Recen	or none apparent (9) ered (6) ering (3) t or no recovery (1)	mowing grazing clearcuttin	cutting oris removal	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichma	atic bed remo	oval

last revised 1 February 2001 jjm

Site:	Rate	r(s):	Date:
max 10 pts.	Metric 5. Special Wetlar  Subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Oper	unrestricted hydronings) (10)	lrology (10) logy (5)
	Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	fowl habitat or 1 Qualitative R	usage (10) ating (-10)
6	44.5 Netric 6. Plant commun	ities, inte	erspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
	Z Forest	2	Present and either comprises significant part of wetland's
	Mudflats Open water		vegetation and is of moderate quality or comprises a small part and is of high quality
	Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	Select only one.		
	High (5)	Narrative De	scription of Vegetation Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2) Low (1)	mod	Native spp are dominant component of the vegetation,
	None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)	.3	and/or disturbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
	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)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopogra	aphy Cover Scale
	<del>.</del>	0	Absent
		1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts and of highest quality

44.5

End of Quantitative Rating. Complete Categorization Worksheets.

WIM\_076

## **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 (10)	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 (10)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
vaung	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	22	
	Metric 4. Habitat	9.5	
	Metric 5. Special Wetland Communities	Ó	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	44.5	Category based on score breakpoints  MoDIFIED 2

Complete Wetland Categorization Worksheet.

### Wetland Categorization Worksheet

Choices	Circle one	<u></u>	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 <i>less</i> than the Category 2 scorin threshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been 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?	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?	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, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category

Choose one Category 1 Category 2 Category 3

MODIFIED

End of Ohio Rapid Assessment Method for Wetlands.

10

WIM-079



## CATEGORY 2

## **Background Information**

Name:		
	REELAND	
Date:	6-2018	
Affiliation:	K & SMITH GROUP	
Address:		01/ 1136-7
	DIAN WOOD CIRCLE, MAUMEE,	
e-mail address:	9) 891-ZZZZ x 2013	
	JFREELAND WANNIKSMI	THGROUP.
Name of Wetland:	W1M-079	
Vegetation Communit(ies):	PFO, PEM	
HGM Class(es):	DEPRESSIONAL	
Location of Wetland: include	e map, address, north arrow, landmarks, distances, roads, etc.	
Lat/Long or UTM Coordinate	41.12045, -82.83369	
USGS Quad Name		
County HURE		
	2 N	
Township CENT	ERTON TZN, RZ4W	
Fownship  CENT  Section and Subsection	ERTON TIN, RZ4W	
Fownship  CENT  Section and Subsection  Hydrologic Unit Code	ERTON T2N, R24W 041000120503	
Township  CENT  Section and Subsection  Hydrologic Unit Code  Site Visit	ERTON T2N, R24W 041000120503 9/27/2018	
Township  CENT  Section and Subsection	ERTON T2N, R24W 041000120503 9/27/2018	
Section and Subsection  Hydrologic Unit Code  Site Visit  National Wetland Inventory Map  Dhio Wetland Inventory Map	ERTON T2N, R24W 041000120503 9/27/2018	
Section and Subsection  Hydrologic Unit Code  Site Visit  Ilational Wetland Inventory Map  Phio Wetland Inventory Map	ERTON T2N, R24W 041000120503 9/27/2018	

Name of Wetland:	1.) IM - 05	7 9		
Wetland Size (acre	WIM - OT	ACRE		
Sketch: Include n	orth arrow, relationship wit	ACRE h other surface waters, vegetati	ion zones, etc.	
SEE	ATTACHE	O WETLAND	DELINEAT	70 41
300	TI THEITEL	11	DECTION	, , ,
MAT,	FIGURE	7.		
				1 8
mments, Narrativ	e Discussion, Justification	of Category Changes:		
		9		
		141		
	040			

Category:

Final score:

49.5

WIM\_079

#### 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.	YES	
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.	) ES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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
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	(NO) Go to Question 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
	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
	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
а	"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	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
эа	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Question 10
9b	Does the wetland's hydrology result from measures designed to	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,	YES	NO
	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	Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	( NO )
9d	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland  Go to Question 10	Go to Question 9e
	Does the wetland have a predominance of non-native or disturbance	YES	NO
9e	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 type of wetland and its quality.	Go to Question 11	
11	Polict Wat 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	Complete Quantitative Rating
		Rating	

Table 1. Characteristic plant species.

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 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 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 Schechseria 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 canadensi. Calamagrostis strictic Carex atherodes Carex buxbaumi Carex pellitic 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.

Site:	A-39/2001	Rater(s):	Date: 9/21//2
	Motrio 1 Wotle	ad Araa (siza)	· · · · · · · · · · · · · · · · · · ·
2	Metric 1. Wetlan	iu Area (Size).	W/M-079
max 6 pts.	10 to <25 acres (4 t 3 to <10 acres (1.2 3 to <3 acres (0.1 0.1 to <0.3 acres (0.1 <0.1 acres (0.04ha)	) (6 pts) .1 to <20.2ha) (5 pts) o <10.1ha) (4 pts) to <4ha) (3 pts) 2 to <1.2ha) (2pts) .04 to <0.12ha) (1 pt) (0 pts)	WM-079 CATEGORY 2
4	Wietric 2. Upland	d buffers and surrounding	j iand use.
max 14 pts.	WIDE. Buffers average MEDIUM. Buffers at NARROW. Buffers VERY NARROW. Intensity of surrounding law Low. Old field (>1 MODERATELY HIG	width. Select only one and assign score. Do not age 50m (164ft) or more around wetland perimeterage 25m to <50m (82 to <164ft) around wetlaverage 25m to <50m (82 to <164ft) around wetlaverage 10m to <25m (32ft to <82ft) around wetland perimeters average <10m (<32ft) around wetland perind use. Select one or double check and average owth or older forest, prairie, savannah, wildlife to years), shrub land, young second growth forest. Residential, fenced pasture, park, conservastrial, open pasture, row cropping, mining, const	eter (7) and perimeter (4) etland perimeter (1) etland perimeter (0) ge. area, etc. (7) st. (5) tion tillage, new fallow field. (3)
16 -	Metric 3. Hydro	logy.	
max 30 pts.	3c. Maximum water depth. S >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to <0.4m (<15.7in) (1)	er (5) (3)  Int surface water (3) Pater (lake or stream) (5) Pater (lake on stream) (5) Pater (lake on stream) (5)	nectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)  ation inundation/saturation. Score one or dbl check.  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  Seasonally inundated (2)  Seasonally saturated in upper 30cm (12in) (1)  and average.
	None or none appa Recovered (7) Recovering (3) Recent or no recove	ditch tile	point source (nonstormwater) filling/grading road bed/RR track dredging other
12.5	Metric 4. Habita	at Alteration and Develop	nent.
max 20 pts.	None or none appa Recovered (3) Recovering (2) Recent or no recove	ery (1) lect only one and assign score.	
	4c. Habitat alteration. Score	one or double check and average.	
subtr	Recovered (6) Recovering (3) Recent or no recove	mowing grazing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

last revised 1 February 2001 jjm

Site:	Rater	r(s):	Date:	
s	34.5  ubtotal first page  Metric 5. Special Wetlar	ıds.		
max 10 ρts.	Subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-take Erie coastal/tributary wetland-take Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro nings) (10) eatened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) atting (-10)	
5	Metric 6. Plant commun	ities, int	erspersion, microtopography.	
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area	<u> </u>
	Aquatic bed	1	Present and either comprises small part of wetland's	
	Emergent		vegetation and is of moderate quality, or comprises a	
	Shrub		significant part but is of low quality	
	Z Forest	. 2	Present and either comprises significant part of wetland's	
	Mudflats		vegetation and is of moderate quality or comprises a smal	l
	Open water Other		part and is of high quality	
	6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's	š
	Select only one.		vegetation and is of high quality	
	High (5)	Narrativo De	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or	
	Moderate (3)	1011	disturbance tolerant native species	
	Moderately low (2)	mod	Native spp are dominant component of the vegetation.	
	Low (1)		although nonnative and/or disturbance tolerant native spp	
	None (0)		can also be present, and species diversity moderate to	
	6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare	
	to Table 1 ORAM long form for list. Add		threatened or endangered spp	
	or deduct points for coverage	high	A predominance of native species, with nonnative spp	
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually	
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,	
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp	
	Nearly absent <5% cover (0)			_
•	Absent (1)		Open Water Class Quality	
	6d. Micròtopography.	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)	
	Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
	2 Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more	
	2 Amphibian breeding pools	Microtopeas	raphy Cover Scale	
	V Themsian brocaing pools	0	Absent	
		1	Present very small amounts or if more common	
		ı	of marginal quality	
		2	Present in moderate amounts, but not of highest	
		_	quality or in small amounts of highest quality	
		3	Present in moderate or greater amounts	
/10			and of highest quality	

49.5

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-079

### **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	
<b>.</b>	Metric 2. Buffers and surrounding land use	Ц	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	12,5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	15	
	TOTAL SCORE	49.5	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 <i>less</i> than the Category 2 sthreshold ( <i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in CRule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over categorized by the ORAM		
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in C Rule 3745-1-54(C) and 2) the quantitative rating score. the wetland is determined to be a Category 3 wetland uneither of these, it should be categorized as a Category wetland. Detailed biological and/or functional assessminary 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 narratic 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 .	range for a p assigned to t narrative crite	if the wetland is located within the scoring articular category, the wetland should be hat category. In all instances however, the eria described in OAC Rule 3745-1-54(C) can arify or change a categorization based on a 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 hof the two categories or to assign a category based or results of a nonrapid wetland assessment method, e. functional assessment, biological assessment, etc, ar consideration of the narrative criteria in OAC rule 374 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 his 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.	still exhibit on biotic commu but the wetlar functions bec or regional sig narrative crite controlling, ar corrected. A	by be undercategorized using this method, but to or more superior functions, e.g. a wetland's nities may be degraded by human activities, and may still exhibit superior hydrologic ause of its type, landscape position, size, local philicance, etc. In this circumstance, the ria in OAC Rule 3745-1-54(C)(2) and (3) are and the under-categorization should be written justification with supporting reasons or rithis determination should be provided.	
		Final Cate	gory		
Choose	ne Category 1	/Ca	tegory 2	Category 3	

End of Ohio Rapid Assessment Method for Wetlands.



### **Background Information**

Name:  JOHN FREELAND
Date: (1-26-20/8
Affiliation: MANNIK & SMITH GROUP
1800 INDIAN WOOD CIRCLE Phone Number:
e-mail address: $(4/9)$ 89/- 2222
JFREELAND @MANNIKSMITHGROUP, COM
Name of Wetland: WIM - 82
Vegetation Communit(les):
HGM Class(es):  RIVERINE / DEPRESSION A L  Location of Wetland: include map, address, north/arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4,
Lat/Long or UTM Coordinate
Lat/Long or UTM Coordinate         41. 20 4 33, -82. 77 20 4           USGS Quad Name
County
Juleo N
Township FLAT ROCK T3N, R24W
Section and Subsection
Hydrologic Unit Code 04(000/20503
Site Visit 9 - 28 - 20/8
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey  SOIL SURJEY OF HYRON COUNTY, OH  Delineation report/map  ATTACHED
Delineation report/map

Intland Circ /cor	COLL	1-002		
vetianu Size (aci	es, hectares):	1 - 082 0 · 38 hip with other surface water		
ketch: Include n	orth arrow, relations	hip with other surface water	s, vegetation zones, etc.	
SEE A	TTACHEN	WETLAND	DELINEATIO	1
100		- 11		
MAP,	FIGUR	2± 4.		
44.5				
mments, Narrati	ve Discussion, Justit	ication of Category Change	s:	
mments, Narrati	ve Discussion, Justit	fication of Category Change	3:	
mments, Narrati	ve Discussion, Justit	lication of Category Change	s:	
mments, Narrati	ve Discussion, Justif	fication of Category Change	s:	
mments, Narrati	ve Discussion, Justit	fication of Category Change	3:	
mments, Narrati	ve Discussion, Justif	lication of Category Change	s:	
mments, Narrati	ve Discussion, Justif	fication of Category Change	s:	
mments, Narrati	ve Discussion, Justit	fication of Category Change	3:	
mments, Narrati	ve Discussion, Justit	fication of Category Change	5:	
mments, Narrati	ve Discussion, Justit	fication of Category Change	5:	
mments, Narrati	ve Discussion, Justif	fication of Category Change	S:	
mments, Narrati	ve Discussion, Justif	fication of Category Change	3:	
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mments, Narrati	ve Discussion, Justif	fication of Category Change	5:	
mments, Narrati	ve Discussion, Justif	fication of Category Change	5:	
mments, Narrati	ve Discussion, Justif	fication of Category Change	5:	
mments, Narrati	ve Discussion, Justif	fication of Category Change	5:	

WIM-082

#### 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.	YES	
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.	<b>作</b> 5	
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.	YES	·
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.	VES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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	Wetland should be evaluated for possible Category 3 status	Go to Question
2	had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).  Threatened or Endangered Species. Is the wetland known to contain	Go to Question 2	
	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
	the state of the s	Go to Question 3	0
	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	1
	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	>
	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
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	(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%?	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	YES	NO )
	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%?	Wetland is a Category 3 wetland	Go to Question 8a
		Go to Question 8a	-
	"Old Growth Forest." Is the wetland a forested wetland and is the	YES	NO )
	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	Wetland is a Category 3 wetland.	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	

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	NO
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	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	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	Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
90	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland  Go to Question 10	Go to Question 9e
	Does the wetland have a predominance of non-native or disturbance	YES	NO
9e	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 account 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 type of wetland and its quality.	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 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 ohtoensis 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 buxbaunii Carex pellita Carex sartwellii Gentiana andrewsii 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.

Site:	A A.	(2000)	Rater(s): ∤8√		Date: 9/28/18
					t ( *
2	2 Me	tric 1. Wetland A	rea (size).	1,1100	- 192
max 6 pts.	subtotal Selec	et one size class and assign scor		0) (1	
	_ _ - -	>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts) ) (3 pts) 2ha) (2pts)	52.5) CATO	-082 EGORY 2
14	Me	tric 2. Upland bu	ffers and surround	ing land use.	
max 14 pts.	7	WIDE. Buffers average 500 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average very very narrounding land use.	Select only one and assign score. In (164ft) or more around wetland p 25m to <50m (82 to <164ft) around a 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetland Select one or double check and a older forest, prairie, savannah, wild	erimeter (7)  wetland perimeter (4)  nd wetland perimeter (1)  nd perimeter (0)  average.  dlife area, etc. (7)	- Crak
	7	MODERATELY HIGH. Res	, shrub land, young second growth idential, fenced pasture, park, cons en pasture, row cropping, mining, c	ervation tillage, new fallo	w field. (3)
20	Z, Me	tric 3. Hydrology			
max 30 pts.	subtotal 3a. S	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3)	apply. 3b.	Connectivity. Score all 100 year floodpla	
	4	Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (lal	ce water (3) (se or stream) (5) 3d.	Part of wetland/up Part of riparian or <u>Buration</u> inundation/satu	pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4)
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	1	Regularly inundat Seasonally inundat Seasonally satura	ed/saturated (3)
	3e. N		Check all disturbances observed ditch tile dike weir stormwater input		
10.5	46.5 Me	etric 4. Habitat Al	teration and Develo	pment.	
max 20 pts.	subtotal 4a. S	Substrate disturbance. Score on  None or none apparent (4)  Recovered (3)  Recovering (2)	e or double check and average.		
	4b. <u>+</u>	Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6)	one and assign score.		
	40.	Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  Habitat alteration. Score one or or	fouble check and average		
	465	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal	shrub/sapling rem herbaceous/aqua sedimentation dredging farming	tic bed removal
SI	ubtotal this page		toxic pollutants	nutrient enrichme	114

last revised 1 February 2001 jjm

Site:	Rate	r(s):	Date:
	46.5		
Si	ubtotal first page		
0	46.5 Metric 5. Special Wetlan	nds.	
max 10 pts.	subtotal Check all that apply and score as indicated.		
	Bog (10) Fen (10)		
	Old growth forest (10)		
	Mature forested wetland (5)		1.1. (40)
	Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland-		
	Lake Plain Sand Prairies (Oak Ope		
····	Relict Wet Prairies (10)		
	Known occurrence state/federal three Significant migratory songbird/wate		
	Category 1 Wetland. See Question		
6	S2.5  Metric 6. Plant commun	ities, int	erspersion, microtopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
	Score all present using 0 to 3 scale.  Aquatic bed	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	/ Emergent	l	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	7 Forest	2	Present and either comprises significant part of wetland's
	Mudřlats Open water		vegetation and is of moderate quality or comprises a small
	Other	3	part and is of high quality  Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one.	Novvetive D	and white the first of the second state of the
	High (5)  Moderately high(4)	low	escription of Vegetation Quality  Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance tolerant native species
	Moderately low (2)	mod	Native spp are dominant component of the vegetation,
	Low (1) None (0)		although nonnative and/or disturbance tolerant native spp
	6c. Coverage of invasive plants. Refer		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
	Nearly absent <5% cover (0)		
	Absent (1). 6d. Microtopography.	Mudflat and	Open Water Class Quality
	Score all present using 0 to 3 scale.	1	Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
	Standing dead >25cm (10in) dbh  / Amphibian breeding pools	Microtopog	raphy Cover Scale
	, unprincial crocking pools	0	Absent
		1	Present very small amounts or if more common
			of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
			and of highest quality

525

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-082

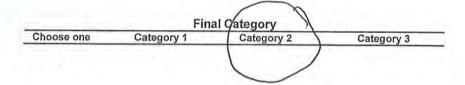
## **ORAM Summary Worksheet**

		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 (10)	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 (10)	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 (10)	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	
vating	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	Zo	
	Metric 4. Habitat	10.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	52.5	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	(A)	Is quantitative rating score <i>less</i> 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 <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 on detailed assessments and the narrative criteria		Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND he wetland was not extegorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by his 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.



End of Ohio Rapid Assessment Method for Wetlands.



CATEGORY 2

### **Background Information**

Name: JOHN FREELAND
Date:
1/-29-20/8 Affiliation:
MANNIK SMITH GROUP
Address:
1800 INDIAN WOOD CIRCLE Phone Number:
(419) 891-2222 1 2013
e-mail address: JEREELAND & MANNIKSMITHGROUP. COM
Name of Wetland: WIM_ 84/85 PAIR
Vegetation Communit(les):
PF0
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED FIGURE 4.
THE MITTELLED MARKET
Lat/Long or UTM Coordinate
71,20966/, -02.77520
JSGS Quad Name
County HURON
Fownship T3N, R24W Section and Subsection
Section and Subsection
Hydrologic Unit Code 041000120503
Site Visit
9-78-/8 National Wetland Inventory Map
Objo Wetland Inventory Man
Ohio Wetland Inventory Map

Name of Wetland:	
Wetland Size (acres, hectares): 0.19 0.0	· V
Wetland Size (acres, hectares):  8.19  9.09  Sketch: Include north arrow, relationship with other surface wat	ters, vegetation zones, etc.
AND THE TREE COMPANY AND	315, 134, 134, 131, 131, 131, 131, 131, 131
SEE FIGURE 4, ATTA	ICHED.
- ',	
omments, Narrative Discussion, Justification of Category Chang	jes;
v	
nal score :	Category:
nai score :	(:STOCOTV)

WIM\_084/085

## 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.

II	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.	YES	
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.	YES	
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.	YES	·
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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 welland in a township, section, or subsection 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	of YES  Wetland should be evaluated for possible Category 3 status	Go to Question
	had critical habitat designated (50 CFR 17.95(a)) and the piping plove has had critical habitat proposed (65 FR 41812 July 6, 2000).	A STATE OF THE PROPERTY OF THE	100
	Threatened or Endangered Species. Is the wetland known to contal 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
	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	Go to Question 3 YES Wetland is a Category 3 wetland	Go to Question 4
	Significant Breeding or Concentration Area. Does the wetland	Go to Question 4 YES	110
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland	Go to Question 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?	Go to Question 5 YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 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	NO 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%?	Go to Question 7 YES  Wetland is a Category 3 wetland	NO Go to Question 8a
	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?		NO So to Question 8b

Mature forested wetlands. Is the wetland a forested wetland with	YES	NO
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	
Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Go to Question 10
Dees the wetland's hydrology result from measures designed to	YES	140
prevent erosion and the loss of aquatic plants, i.e. the wetter 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	
Are Lake Frie water levels the wetland's primary hydrological influence,	YES	NO
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 isolated acquired to the condex densition wetlands, estuarine wetlands, river mouth	Go to Question 9d	Go to Question 10
wetlands, or those dominated by submersed aquatic vegetation.	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	
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	Go to Question 10
	Category 3 status	
	Go to Question 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	Wetland is a Category 3 wetland.	Go to Question 11
Substitute Will interoperate a substitute of the	1	
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	Go to Question 11	
several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		NO
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.  Relict Wet Prairies. Is the wetland a relict wet prairie community deminated by come or all of the species in Table 1. Extensive prairies	YES	
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.  Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies	YES (	Complete
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.  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 Resetting), porthypot Ohio (e.g. Frie, Huron Lucas, Wood Counties),	YES	
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.  Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies	YES  Wetland should be evaluated for possible	Complete Quantitative
	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?  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?  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?  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.  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?  Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	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?  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?  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?  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, or those dominated by submersed aquatic vegetation.  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?  Wetland should be evaluated for possible Category 3 status.  Go to Question 90  YES  Go to Question 90  YES  Wetland is a Category 3 wetland is a Category 3 wetland is a Category 3 status.  Go to Question 10  YES  Wetland should be evaluated for possible category 3 status.  Go to Question 10  YES  Wetland is a Category 3 status.  Go to Question 10  YES  Wetland is a Category 3 status.  Go to Question 10

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Palaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 Trofieldia 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 Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium macrocarpon Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi Calamagrostis strict. Carex atherode Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi 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.

•	Site:	WIM.	_ 084/085	Rater(s):	JAF	Da	ate:	11-29-18
		1,	   Metric 1. Wetland A	rea (size).				٠.
					•	·		
	max 6 pts.	subtotal	Select one size class and assign scot  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <2  10 to <25 acres (4 to <10.1  3 to <10 acres (1.2 to <4ha  0.3 to <3 acres (0.12 to <1.  0.1 to <0.3 acres (0.04 to < 0.1 acres (0.04ha) (0 pts)	0.2ha) (5 pts) ha) (4 pts) ) (3 pts) 2ha) (2pts) .				
	14	15	Metric 2. Upland bu					
	max 14.pts.	subtotal	2a. Calculate average buffer width. S WIDE. Buffers average 50r MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years), MODERATELY HIGH. Res HIGH. Urban, industrial, op	n (164ff) or more ard 25m to <50m (82 to 5 10m to <25m (32ft verage <10m (<32ft Select one or doub older forest, prairie, shrub land, young sidential, fenced past	ound wetland perimeter <164ff) around wetland to <82ff) around wetland ) around wetland perim ble check and average. savannah, wildlife area second growth forest. ( ure, park, conservation	r.(7) d perimeter (4) ind perimeter (1) neter (0) a, etc. (7) 5) itillage, new fallow fiel	d. (3)	
	13	28	Metric 3. Hydrology					1
L	max 30 pts.	subtotal	3a. Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake 3c. Maximum water depth. Select only >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) ( <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	e water (3) e or stream) (5) v one and assign sco 2)	3d. Duration ore.  Sor double check and aveces observed	pint source (nonstormv ling/grading ad bed/RR track	nd othe (e.g. for nd corric n. Score nundate turated 2) upper 3	rest); complex (1) dor (1) e one or dbl check. d/saturated (4) (3)
				weir stormwater in	out dr	edging her <u>FARAIA</u>	UG .	
	12	40	Metric 4. Habitat Alte	eration and	Developme	nt.		,
	max 20 pts.		4a. Substrate disturbance. Score one of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only of Excellent (7) Very good (6) Good (5) Moderately good (4)		<b>v</b> .		· · ·	
			Fair (3) Poor to fair (2)					
			Poor (1) 4c. Habitat alteration. Score one or dou					<del></del>
	subt	U0 otal this page	Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbance mowing grazing clearcutting selective cutting woody debris re toxic pollutants	shruheri heri sed drec emoval farm	ub/sapling removal baceous/aquatic bed re imentation dging ning ient enrichment	∍moval	
las	t revised 1		L	*				

Site:		Rater(s):	Date:
	40		
Ò	Metric 5. Spe	ecial Wetlands.	×
nax 10 pts.	subtotal Check all that apply and a Bog (10) Fen (10) Old growth fore Mature forested Lake Erie coast Lake Plain San Relict Wet Prair Known occurrer Significant mignications of the Category 1 Wet	est (10) d wetland (5) tal/tributary wetland-unrestricte tal/tributary wetland-restricted h d Prairies (Oak Openings) (10) ties (10) nce state/federal threatened or atory songbird/water fowl habital	endangered species (10) at or usage (10) ve Rating (-10)
11	3		nterspersion, microtopography.
x 20 pts.	subtotal 6a. Wetland Vegetation C		ion Community Cover Scale
	Score all present using 0 to		Absent or comprises <0.1ha (0.2471 acres) contiguous are
	Aquatic bed Emergent Shrub		Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
	2 Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a sma part and is of high quality
	Other 6b. horizontal (plan view) li	nterspersion. 3	Present and comprises significant part, or more, of wetland vegetation and is of high quality
	Select only one.	22.002.00	
	High (5)	Narrative	Description of Vegetation Quality
	Moderately high(4 Moderate (3)	i ,— 200	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2 Low (1) None (0) 6c. Coverage of invasive plate to Table 1 ORAM long form	ants. Refer	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
	or deduct points for coverage Extensive >75% of Moderate 25-75% Sparse 5-25% cov	high over (-5) cover (-3)	threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Nearly absent <5%		and presented of rare, threatened, or endangered spp
	Absent (1)		d Open Water Class Quality
	6d. Microtopography.	. 0	Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3		Low 0.1 to <1ha (0.247 to 2.47 acres)
	/ Vegetated hummud		Moderate 1 to <4ha (2.47 to 9.88 acres)
	7 Coarse woody debr		High 4ha (9.88 acres) or more
	2 Standing dead >250 2 Amphibian breeding	그리고 가장 아이들이 얼마나 하는데 그리고 그렇게 되었다.	raphy Cover Scale
		0	Absent
		. 1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
4		3	Present in moderate or greater amounts and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

WIM\_ 084/085

### **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 (10)	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	
Nating	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	13	
	Metric 4. Habitat	12	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography		
	TOTAL SCORE	51	Category based on score breakpoints

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

### Wetland Categorization Worksheet

Choices	Circle one	K. Carlot	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	-	Is quantitative rating score <i>less</i> 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 C	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	(D)	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 on detailed assessments and the narrative criteria	<b>№</b>	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 superformydrologic OR habitat, OR eccreational functions AND the wetland was not eategorized as a Category 2 exetland (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, 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.

WIM-86/87



### **Background Information**

Name: JOHN FREELAND	
Date: 11-26-2018	
Affiliation: MANNIK SMITH GROUP	
Address: 1800 (NDIAN WOOD CIRCLE, MAUMEE,	0410 43537
Phone Number: (419) 891-2222 × 20	
e-mail address: JEREELANA 2 MANNIKSA	
Name of Wetland: $W_{IM} = 86/87$	111190000000
Vegetation Communit(les):	
HGM Class(es): DEPRESSIONAL / RIVERIN	117
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	0.0
SEE ATTACHED LOCATION MAP, FIGU	IRE 4.
Lat/Long or UTM Coordinate 41, 20460, -82, 77804	
USGS Quad Name	
County HURON COUNTY	
TOWNSHIP FLAT ROCK T3N RZ4W	
Section and Subsection	1
Hydrologic Unit Code 041000/20503	
Site Visit 9-28-2018	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
SOIL SURVEY OF HURON COUNTY, OHIO	
Delineation report/map  ATTACHED	

Name of Wetland:  With _ 86/87  Wetland Size (acres, hectares):  Sketch: Include north arrow, relationship with other surface w		
Wetland Size (acres, hectares):	ACRE	_
Sketch: Include north arrow, relationship with other surface w	vaters, vegetation zones, etc.	
SEE ATTACHED WETLAND DELI	NEATION MAP, FIGURE 4.	
omments, Narrative Discussion, Justification of Category Cha	nges:	
		1
1		
inal score :	Category:	

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#### 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.	YES	
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.	YES	
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.	YES	
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.	YES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	YES	
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.	YES	

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), <a href="http://www.dnr.state.oh.us/dnap">http://www.dnr.state.oh.us/dnap</a>. 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).			
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	
	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	
	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	
	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	
	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	
	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	
-	"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	

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		2	7,
O.L.	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
8b	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	
	the state of the s	YES YES	(NO)
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	1 123	
	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Go to Question 10
	elevation, or along a tributary to Lake Erie that is accessible to fish?  Does the wetland's hydrology result from measures designed to	YES	NO
9b	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,	YES	NO
90	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.	Go to Question 9d	Go to Question 10
	Does the wetland have a predominance of native species within its	YES	NO
9d	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland Go to Question 10	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 )
10	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	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.	00 10 2200	
11	Delicative Draining Is the wetland a relict wet prairie community	YES	NO N
17	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 Myriophyllum spicatum Najas minor Phalaris arumdinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	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 Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex risperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechseria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium nacrocarpon Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensi Calamagrostis stricti Carex atherode. Carex buxbaumi Carex pellita Carex sartwelli Gentiana andrewsi. 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.

Site: ABRIOD   Rater(s):   Date: 9/7	8/18
	$\nu$
Metric 1. Wetland Area (size).	/
11N-08e,	/
max 6 pts. subtotal Select one size class and assign score. >50 acres (>20.2ha) (6 pts)	237
25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts)	
10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts)	
0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	
<0.1 acres (0.04ha) (0 pts)	
$Q = I_{C}$ Metric 2. Upland buffers and surrounding land use.	
William Colonia and Archive Colonia and Archiv	
max 14 pts. subtotal 2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)	
MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)	
VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)	
2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)	
LOW. Old field (>10 years), shrub land, young second growth forest. (5)	
MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
Metric 3. Hydrology.	
26 37 monto or right or segge	
max 30 pts. subtotal 3a. Sources of Water. Score all that apply.  3b. Connectivity. Score all that apply.  High pH groundwater (5)  3b. Connectivity. Score all that apply.	
Other groundwater (3)	an use (1)
Precipitation (1)  Seasonal/Intermittent surface water (3)  Part of wetland/upland (e.g. forest), or seasonal/Intermittent surface water (3)  Part of riparian or upland corridor (1)	complex (1)
Perennial surface water (lake or stream) (5)  3d. Duration inundation/saturation. Score one	
3c. Maximum water depth. Select only one and assign score. Semi- to permanently inundated/saturated (3)	rated (4)
0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2)	(40:-) (4)
<0.4m (<15.7in) (1) Seasonally saturated in upper 30cm 3e. Modifications to natural hydrologic regime. Score one or double check and average.	(12In) (1)
None or none apparent (12) Check all disturbances observed	
Recovered (7)   ditch   point source (nonstormwater)   tile   filling/grading	
Recent or no recovery (1) dike road bed/RR track	
weir dredging stormwater input other	
1 149 Metric 4. Habitat Alteration and Development.	
max 20 pts. subtotal 4a. Substrate disturbance. Score one or double check and average.	
None or none apparent (4) Recovered (3)	
Recovering (2)	
Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.	
Excellent (7)	
Very good (6) Good (5)	
Moderately good (4) Fair (3)	
Poor to fair (2)	
Poor (1) 4c. Habitat alteration. Score one or double check and average.	
None or none apparent (9) Check all disturbances observed	
Recovered (6) mowing shrub/sapling removal prazing grazing shrub/sapling removal herbaceous/aquatic bed removal	
Recent or no recovery (1) clearcutting sedimentation	
selective cutting dredging woody debris removal farming	
toxic pollutants nutrient enrichment	
subtotal this page  last revised 1 February 2001 jjm	

Site:	WIM	86/87	Rater(s):	AEF	), JAF	Date:	9/28/18
ð	49 subtotal first p	Metric 5. Special W	etlands.		/ .		, , ,
max 10 pts.	subtotal	Check all that apply and score as indice Bog (10) Fen (10) Old growth forest (10)	cated.				
		Mature forested wetland (5) Lake Erie coastal/tributary w Lake Erie coastal/tributary w Lake Plain Sand Prairies (O Relict Wet Prairies (10) Known occurrence state/fed	etland-restricted ak Openings) (1 eral threatened	d hydrolo 0) or enda	ogy (5) ngered species (10)		
7		Significant migratory songbing Category 1 Wetland. See Quarte Company 1 Metric 6. Plant company 1 Metric 6. Plant company 1 Metric 6.	uestion 1 Qualit	ative Ra	iting (-10)	opograj	ohy.
7 max 20 pts.	Subtotal		•				•
max 20 pts.	Subtotal	6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.	<u>Vege</u>	tation C	Community Cover Scale	474\	_1;
		Aquatic bed Emergent	<del>*************************************</del>	1	Absent or comprises <0.1ha (0.2 Present and either comprises sm vegetation and is of moderate of	all part of we	tland's
		Shrub			significant part but is of low qua	ality	
		Z Forest Mudflats Open water		2	Present and either comprises sig vegetation and is of moderate of part and is of high quality		
		Other6b. horizontal (plan view) Interspersion	٦.	3	Present and comprises significan vegetation and is of high quality		e, of wetland's
		Select only one. High (5)	Norro	tivo Do	navintian of Vanatatian Quality		
		Moderately high(4) Moderate (3)		ow	scription of Vegetation Quality Low spp diversity and/or predomi disturbance tolerant native spec		native or
		Moderately low (2) Low (-1)	n	nod	Native spp are dominant compon although nonnative and/or distu	ent of the veg irbance tolera	nt native spp
		None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Ad	r d		can also be present, and specie moderately high, but generally v threatened or endangered spp		
		or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)	. h	igh	A predominance of native species and/or disturbance tolerant nativabsent, and high spp diversity a	ve spp absen	t or virtually
		Sparse 5-25% cover (-1) Nearly absent <5% cover (0)			the presence of rare, threatened		• .
		Absent (1) 6d. Microtopography.	-	at and 0	Open Water Class Quality		
		Score all present using 0 to 3 scale.		1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 ac	res)	
		Vegetated hummucks/tussuc		2	Moderate 1 to <4ha (2.47 to 9.88		
		Coarse woody debris >15cm Standing dead >25cm (10in)		3	High 4ha (9.88 acres) or more		
		Amphibian breeding pools			phy Cover Scale		
				0	Absent	noro commi	
				2	Present very small amounts or if r of marginal quality Present in moderate amounts, but		
				3	quality or in small amounts of his  Present in moderate or greater an	ghest quality	
			•	-		- our no	

End of Quantitative Rating. Complete Categorization Worksheets.

This foregoing document was electronically filed with the Public Utilities

**Commission of Ohio Docketing Information System on** 

1/31/2019 2:52:47 PM

in

Case No(s). 18-1607-EL-BGN

Summary: Application - Part 13 of 17 electronically filed by Christine M.T. Pirik on behalf of Firelands Wind, LLC