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

#### **Application Part 14 of 17**

#### Part 14 includes:

• Exhibit Z Ecological Assessment (Part 5 of 8)

Date Filed: January 31, 2019

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Attorneys for Firelands Wind, LLC

WIM-86/87

### **ORAM Summary Worksheet**

		- ! [-	
		circle	
		answer or	D "
		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		
. (20.1.)	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	27	
	Metric 4. Habitat	17	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	7	
	TOTAL SCORE	56	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	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?	Vetland 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?	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

End of Ohio Rapid Assessment Method for Wetlands.



## MODIFIED CATEGORY 2

## **Background Information**

JOHN FREELAND	
Date: 11-26-2018	
Affiliation: MANNIK & SMITH GROUP	
Address: 1800 INDIAN WOOD CIRCLE, MAUMEE, OH 435.	37
Phone Number	,
e-mail address: $ \frac{(419)891-2222 \times 2013}{\text{JFREELAND@MANNIKSMITHGROUPEON}} $	
N. (18/-41	1
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	
USGS Quad Name 4/. 202-06, -82. 77982	
County	
Township Township	
Township  T3N, R24W  Section and Subsection	
Lludente de la lieure Condo	
V 7/ 000 / 203 0 3	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
S-H Current	
SOIL SURVEY OF HURON COUNTY, UH  Delineation report/map	
ATTACHED	

Wetland Size (acres, hectares):	70		-
Wetland Size (acres, hectares): Sketch: Include north arrow, relationship	with other surface waters you	notation zones etc	
SEE ATTACHED MAP, FIGURE	WETLAND 4	DELINEAT	ron
,, , , , , , , , , , , , , , , , , , , ,	84.5		
Comments, Narrative Discussion, Justifica	ation of Category Changes:		
	ing the real property of the party of the		
			*

#### 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	
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
•	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
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	NO Go to Question 8b

	the supplied a forested wetland with	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	
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 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	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
	the state of partial or disturbance	YES YES	NO
9e	Does the wetland have a predominance of non-native or disturbance 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 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.	YES	(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.).	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 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 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.

APEX A3820001

ORAM v. 5.0 Field Form Quantitative Rating

Site:	WIM	1_90	Rater(s): JF C	LW	Date: 10-1-18
2	1	Metric 1. Wetland	•	(5:8)	MODIFIED CATEGORY 2
max 6 pts.		Select one size class and assign size class and assign size class and assign size class area (>20.2ha) (6 pt	vts) <20.2ha) (5 pts) 0.1ha) (4 pts) ha) (3 pts) <1.2ha) (2pts) o <0.12ha) (1 pt) s)	(43)	
9		Metric 2. Upland b	uffers and surrou	nding land us	e.
max 14 pts.		MEDIUM. Buffers avera NARROW. Buffers avera VERY NARROW. Buffer 2b. Intensity of surrounding land u VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. 6	50m (164ft) or more around wetlar ge 25m to <50m (82 to <164ft) arc age 10m to <25m (32ft to <82ft) a rs average <10m (<32ft) around w	nd perimeter (7) hund wetland perimeter (4) round wetland perimeter etland perimeter (0) nd average.  wildlife area, etc. (7) wth forest. (5) conservation tillage, new	(1)
13	24	Metric 3. Hydrolog			
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent supperennial surface water 3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (1) 3e. Modifications to natural hydrol None or none apparent (1) Recovered (7) Recovering (3) Recent or no recovery (1)	rface water (3) (lake or stream) (5) only one and assign score.  in) (2) ogic regime. Score one or double (12) Check all disturbances obse	Part of wetlan Part of riparia 3d. Duration inundation/ Semi- to perm Regularly inui Seasonally in Seasonally sa check and average.	dplain (1) dm/lake and other human use (1) d/upland (e.g. forest), complex (1) n or upland corridor (1) saturation. Score one or dbl check. nanently inundated/saturated (4) ndated/saturated (3) undated (2) aturated in upper 30cm (12in) (1) nonstormwater)
	1		X stormwater input	other	IECH DIOT MAGE
max 20 pts.		4a. Substrate disturbance. Score None or none apparent of Recovered (3) Recovering (2) Recent or no recovery (1) Ab. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Ac. Habitat alteration. Score one None or none apparent Recovered (6) Recovering (3) Recent or no recovery (1)	one or double check and average  (4)  only one and assign score.  or double check and average.  (9)  Check all disturbances obse  mowing grazing clearcutting selective cutting woody debris removal	rved shrub/sapling herbaceous/a sedimentatior dredging farming	nquatic bed removal
	ubtotal this page 1 Februar	•	toxic pollutants	nutrient enric	nment

Site:	W	1 M - 90 Rate	er(s): J	F, CLW	Date: 10 -1-15
SI	34 ubtotal first	<del>-</del> i		,	
		Metric 5. Special Wetla	nds.	J/A	
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 Plain Sand Prairies (Oak Op	d-unrestricted hydrestricted hydro	drology (10)	
		Relict Wet Prairies (10)  Known occurrence state/federal th Significant migratory songbird/wat	reatened or enda	angered species (10)	
		Category 1 Wetland. See Questio	n 1 Qualitative R	ating (-10)	
9	43	Metric 6. Plant commu	nities, int	erspersion, microto	opography.
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 (0.2-	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 × Forest	2	significant part but is of low qua Present and either comprises sign	
		Mudflats Open water		vegetation and is of moderate of part and is of high quality	uality or comprises a small
		Other 6b. horizontal (plan view) Interspersion. Select only one.	3	Present and comprises significan vegetation and is of high quality	
		High (5)	Narrative Do	escription of Vegetation Quality	
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominedisturbance tolerant native spec	
		Moderately low (2)	mod	Native spp are dominant component	
		Low (1) None (0)		although nonnative and/or distu	rbance tolerant native spp
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		can also be present, and specie moderately high, but generally v threatened or endangered spp	
		or deduct points for coverage	high	A predominance of native species	
		Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		and/or disturbance tolerant nation absent, and high spp diversity a the presence of rare, threatened	nd often, but not always,
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality	, c. chadrigored opp
		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 ac	
		Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	<del>2</del> 3	Moderate 1 to <4ha (2.47 to 9.88	acres)
		Standing dead >25cm (10in) dbh		High 4ha (9.88 acres) or more	
		Amphibian breeding pools	Microtopogr 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 hig	
			3	Present in moderate or greater am	ounts

End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

		circle	
		answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO	If yes, Category 3.
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Quantitative Rating	Metric 1. Size	2	
Ü	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology		
	Metric 4. Habitat		
	Metric 5. Special Wetland Communities		
	Metric 6. Plant communities, interspersion, microtopography	PPTENSIN	
	TOTAL SCORE	43	Category based on score breakpoints  MoDIFIED

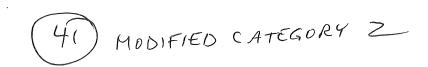
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Did you answer "Yes" to Narrative Rating No. 5	YES  Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold ( <i>including</i> any gray zone)? If yes, reevaluate the category 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	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  Metand 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

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

JOHN FREELAND
Date: 11-29-2018
Affiliation: MANNIK SMITH GROUP
Address:
Address:  1800 INDIAN WOOD CIRCLE, MAUMEE, OH 43537  Phone Number:
(419) 891-2222 × 2013
Phone Number: (419) 891-ZZZZ XZ013 e-mail address: JFREELAND @ MANNIKSMITHGROUP. Con
Name of Wetland: $\omega_{IM} = 092$
Vegetation Communit(ies):  PFO PEM, VERNAC POOL
LUCKI Class(ss):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE FIGURE 4, ATTACHED
·
Lat/Long or UTM Coordinate 41.19724, -82.77122
USGS Quad Name
County HURON
Township T3N RZYW
Section and Subsection
-lydrologic Unit Code 04/000/20503
/0 - ( - ( 8
National Wetland Inventory Map
National Wetland Inventory Map  Dhio Wetland Inventory Map
National Wetland Inventory Map  Ohio Wetland Inventory Map
National Wetland Inventory Map  Dhio Wetland Inventory Map

		-092	
Wetland Size (acre	es, hectares):	12/	
Sketch: Include no	orth arrow, relationship w	. 6 / vith other surface waters, vegetation zon	es, etc.
SE€	FIGURE	4, ATTACHEZ	
mments Narrative	a Discussion . Justification	a of Cotogony Changes	
mments, Narrative	e Discussion, Justification	n of Category Changes:	
mments, Narrative	e Discussion, Justification	n of Category Changes:	
mments, Narrative	e Discussion, Justification	n of Category Changes:	
mments, Narrative	e Discussion, Justification	n of Category Changes:	
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mments, Narrative	e Discussion, Justification	n of Category Changes:	
mments, Narrative	e Discussion, Justification	n of Category Changes:	
omments, Narrative	e Discussion, Justification	n of Category Changes:	
omments, Narrative	e Discussion, Justification	n 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.

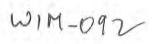
	Steps in properly establishing scoring boundaries	done?	not applicable
# Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	YES	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berns 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.	45	·
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.	FES	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	FES	
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.	1/25	

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 plov has had critical habitat proposed (65 FR 41812 July 6, 2000).	Wetland should be evaluated for possible Category 3 status		
2	Threatened or Endangered Species. Is the wetland known to contrant 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	
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	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	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	



8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
77	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)
	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	NO 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 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.	
Table I.	Characteristic 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 stericta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamagrostis stricta Carex atherodes Carex buxbaumit Carex sartwellit 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.

(41) MODIFIED CATEGORY Z

ORAM v. 5.0 Field Form Quantitative Rating

Site:	WIM	1-	09.2	Rater(s):	JAF_	Date: 10-1-	-18
0	0	M	etric 1. Wetlan	d Area (size).	,		٠.
max 6 pts.	subtotal	-	ect one size class and assign >50 acres (>20.2ha) (25 to <50 acres (10.1 10 to <25 acres (4 to 3 to <10 acres (1.2 to 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.00 <0.1 acres (0.04ha) (0.04ha) (0.04ha) (0.04ha) (0.04ha)	6 pts) to <20.2ha) (5 pts) <10.1ha) (4 pts) <4ha) (3 pts) to <1.2ha) (2pts) to <0.12ha) (1 pt) to to <0.12ha) (1 pt)			
17	7	M	etric 2. Upland	buffers and su	irrounding la	and use.	
max 14,pts.	subtotal		MEDIUM. Buffers ave NARROW. Buffers ave VERY NARROW. Buf Intensity of surrounding lanc VERY LOW. 2nd grow LOW. Old field (>10 y MODERATELY HIGH.	e 50m (164ft) or more arou erage 25m to <50m (82 to < erage 10m to <25m (32ft t fers average <10m (<32ft)	ind wetland perimeter. ( 164ft) around wetland i 0 <82ft) around wetland around wetland perime e check and average. avannah, wildlife area, econd growth forest. (5) re, park, conservation tie	7) perimeter (4) I perimeter (1) ter (0) etc. (7) Ilage, new fallow field. (3)	
10	17	Me	etric 3. Hydrolo	gy.			
max 30 pts.	subtotal	3c.	Sources of Water. Score all High pH groundwater ( Other groundwater (3) Precipitation (1) Seasonal/Intermittent s Perennial surface wate Maximum water depth. Sele >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27    0.4m (<15.7in) (1)	5) surface water (3) r (lake or stream) (5) ct only one and assign scor .6in) (2)	3d. Duration Te.  See See See	vity. Score all that apply.  D year floodplain (1)  tween stream/lake and other human user of wetland/upland (e.g. forest); compute of riparian or upland corridor (1)  nundation/saturation. Score one or demi-to permanently inundated/saturated (3)  gularly inundated/saturated (3)  asonally inundated (2)  asonally saturated in upper 30cm (12in rage.	olex (1) ol check. d (4)
			None or none apparent Recovered (7) Recovering (3) Recent or no recovery	(12) Check all disturbanc ditch tile	es observed poir fillir roac drec	nt source (nonstormwater) g/grading d bed/RR track dging	
10	77	Me	etric 4. Habitat	Alteration and	Developmen	t.	
max 20 pts.	subtotal .	4b. F	Substrate disturbance. Score  None or none apparent Recovered (3)  Recovering (2) Recent or no recovery ( labitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) abitat alteration. Score one Recovered (6)	(4)  1)  only one and assign score.  or double check and average	ie. s observed	o/sapling removal	
subt	27]	Ē.	Recovering (3) Recent or no recovery (1	grazing	herba sedin dredo moval ' × farmi	aceous/aquatic bed removal nentation ging	· · .

Site:	Rater(s):	JAF	Date: 9-75-
subtotal first page			
Metric 5. Special	Wetlands.	÷	
max 10 pts. subtotal Check all that apply and score as  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Erie coastal/tributa Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state Significant migratory sor	d (5) ary wetland-unrestricted ary wetland-restricted hy s (Oak Openings) (10) offederal threatened or e ngbird/water fowl habitat	rdrology (5) Indangered species (10) For usage (10)	
Category 1 Wetland. Se			
Metric 6. Plant col			rotopography.
max 20 dts. subtotal 6a. Wetland Vegetation Communit Score all present using 0 to 3 scale		on Community Cover Scale	10.0 (8)
Aquatic bed	01	Present and either comprise	na (0.2471 acres) contiguous area
Emergent Shrub		vegetation and is of mod significant part but is of k	erate quality, or comprises a
Forest   Mudflats   Open water	2	Present and either comprise vegetation and is of modern part and is of high quality	ses significant part of wetland's erate quality or comprises a small
6b. horizontal (plan view) Interspen	sion.	Present and comprises sign vegetation and is of high	nificant part, or more, of wetland's
Select only one.	700	ALTO TOUR DESCRIPTION	
High (5)		Description of Vegetation Qua	ality
Moderately high(4) Moderate (3)	low	disturbance tolerant native	edominance of nonnative or e species
Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Re to Table 1 ORAM long form for list.	mod efer Add	Native spp are dominant to although nonnative and/or can also be present, and s moderately high, but gene threatened or endangered	disturbance tolerant native spp species diversity moderate to rally w/o presence of rare
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-1)  Sparse 5-25% cover (-1)	high 3)	A predominance of native sp and/or disturbance toleran	pecies, with nonnative spp t native spp absent or virtually sity and often, but not always,
Nearly absent <5% cover ( Absent (1)	5 D	d 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 2.4	
( Vegetated hummucks/tussi	ucks 2	Moderate 1 to <4ha (2.47 to	
Coarse woody debris >15ci		High 4ha (9.88 acres) or more	
2 Standing dead >25cm (10in		in the second second	
Amphibian breeding pools		raphy Cover Scale	
	1	Absent  Present very small amounts of marginal quality	r if more common
	2	Present in moderate amounts quality or in small amounts of	, but not of highest of highest quality
111.	3	Present in moderate or greate and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

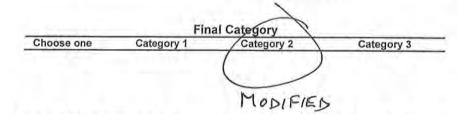
#### **ORAM Summary Worksheet**

		circle answer or insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES (10)	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 (N)	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	
ramg	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	10	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	14	
	TOTAL SCORE	41	Category based on score breakpoints  Modified 2

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

## 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 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 eccreational functions AND he 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.	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 - 20/8
Affiliation:  MANNIK & SMITH GROUP
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(419) 891-2222 × 2013
e-mail address: FREE AND @ MANNIKSMITH GROUP, COM
Name of Wetland: $\omega_{IM} - 93$
Vegetation Communit(ies):  PREDOMINANTLY PEM, MINUR PSS
HGM Class(es):  RIVERINE, DEPRESSIONAL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
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. 19746 , -82.77325
County
HURON
TOWNSHIP FUTT ROCK T3N, R24W
Section and Subsection
Hydrologic Unit Code 5 4 1 0 0 0 1 2 0 5 0 3
Site Visit
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SOIL SURVEY OF HURUN COUNTY, 014
Delineation report/map  A TTACHED

lame of Wetland: WIY - 9	13		
vetland Size (acres, nectares):	1.22 ACRE		
ketch: Include north arrow, relationsh	ip with other surface water		
SEE ATTACHED	WETLAND	DELINEATION	MAP,
FIGURE 4.			
MAURE 4.			
mments, Narrative Discussion, Justifi	cation of Category Change	s:	
nal score:		Category:	153

#### 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 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.	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.	作S	
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	T
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
	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	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 Ba
	"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

			2
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	(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	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
9¢	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
	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	1
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	(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.	YES	(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.).	Wetland should be evaluated for possible Category 3 status  Complete Quantitative Rating	Complete Quantitative Rating

Table 1	Characteristic	plant encoice
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 Vanunculus 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 canadensi. Calamagrostis strictic Carex atherode. Carex buxbaumi Carex pellitic 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	-993	Rater(s): ) F,	CLW	Date: \0 8
22	Metric 1. Wetland	Area (size).	CATEGORY	(61)
max 6 pts. subtotal	Select one size class and assign s >50 acres (>20.2ha) (6   25 to <50 acres (10.1 to 10 to <25 acres (4 to <1 3 to <10 acres (1.2 to <4 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04 t <0.1 acres (0.04ha) (0 p	ots) <20.2ha) (5 pts) 0.1ha) (4 pts) Iha) (3 pts) <1.2ha) (2pts) o <0.12ha) (1 pt)	2-3 GRAY Zo	
	Metric 2. Upland k	ouffers and suri	ounding land u	se.
max 14 pts. subtotal	NARROW. Buffers averaged very NARROW. Such very	50m (164ft) or more around age 25m to <50m (82 to <164age 10m to <25m (32ft to < 375 average <10m (<32ft) arouse. Select one or double clandroider forest, prairie, savaars), shrub land, young seco	wetland perimeter (7)  Iff) around wetland perimeter  82ft) around wetland perimet  und wetland perimeter (0)  neck and average.  annah, wildlife area, etc. (7)  nd growth forest. (5)  park, conservation tillage, ne	r (4) er (1)
2339	Metric 3. Hydrolog			
max 30 pts. subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surprise water 3c. Maximum water depth. Selection (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (4) <	) irface water (3) (lake or stream) (5) t only one and assign score. Sin) (2)	Between st Part of wetl Part of ripa 3d. Duration inundation Semi- to pe Regularly in Seasonally Seasonally	ore all that apply. codplain (1) tream/lake and other human use (1) land/upland (e.g. forest), complex (1) rian or upland corridor (1) con/saturation. Score one or dbl check ermanently inundated/saturated (4) nundated/saturated (3) inundated (2) saturated in upper 30cm (12in) (1)
	3e. Modifications to natural hydro  None or none apparent Recovered (7) Recovering (3) Recent or no recovery (	(12) Check all disturbances ditch tile	observed point source filling/gradii road bed/R dredging	
10 40	Metric 4. Habitat	Alteration and D	Development.	
max 20 pts. subtotal	4a. Substrate disturbance. Score None or none apparent Recovered (3) Recovering (2) Recent or no recovery ( 4b. Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4)	(4)	erage.	
	Fair (3) Poor to fair (2)			
	Poor (1) 4c. Habitat alteration. Score one			
subtotal this last revised 1 Febru		mowing grazing	shrub/sapli herbaceou sedimentat dredging	

Site:	Rate	r(s):		Date:
SL	blotal first page			
NK	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-i	unrestricted by	drology (10)	
	Lake Erie coastal/tributary wetland-i Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10)	restricted hydro nings) (10)	ology (5)	
	Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	fowl habitat or	usage (10)	
12	Metric 6. Plant commun	ities, int	erspersion, microto	pography.
max 20 pts.	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	471 acres) contiguous area
	Aquatic bed	1	Present and either comprises sma	
	2. Emergent		vegetation and is of moderate q	uality, or comprises a
	Shrub		significant part but is of low qua	lity
	<u></u> Forest	2	Present and either comprises sign	nificant part of wetland's
*	Mudflats		vegetation and is of moderate q	uality 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.		1 3	
	High (5)	Narrative D	escription of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predomir	nance of popportive or
	Moderate (3)	1011	disturbance tolerant native spec	ios
	Moderately low (2)	mod		
	Low (1)	mod	Native spp are dominant compone	
	None (0)		although nonnative and/or distur	bance tolerant native spp
	6c. Coverage of invasive plants. Refer		can also be present, and specie	s 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		threatened or endangered spp	
		high	A predominance of native species	
	Extensive >75% cover (-5)		and/or disturbance tolerant nativ	
	Moderate 25-75% cover (-3)		absent, and high spp diversity ar	
	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 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	Microtono	ranhy Coyor Socia	
	Light with the equilibrium		raphy Cover Scale	
-		0	Absent	
/		1	Present very small amounts or if m of marginal quality	
(0.)	1	2	Present in moderate amounts, but quality or in small amounts of hig	hest quality
		3	Present in moderate or greater am	ounts
Maria			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 (10)	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	
Nating	Metric 2. Buffers and surrounding land use	14	200
	Metric 3. Hydrology	14	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	IV	
	TOTAL SCORE	49	Category based on score breakpoints

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 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 secring 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?	Vestand 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	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.

Observation			
Choose one	Category 1	Category 2	Category 3
			3-17

End of Ohio Rapid Assessment Method for Wetlands.

ORAM v. 5.0 Field Form Quantitative Rating

Site: W TM	-094	Rater(s): CLW 5	F	Date: 10 - 2 -18
8 V				
2 2	Metric 1. Wetland			
max 6 pts. subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pt		(69	
	25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10	<20.2ha) (5 pts)		
	3 to <10 acres (1.2 to <4l	na) (3 pts)		*
	0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to			
	<0.1 acres (0.04ha) (0 pt		ممير لمسما ييمه	
14 16	Metric 2. Upland b	uffers and surround	ing iand use.	
max 14 pts. subtotal	] 2a. Calculate average buffer width.	Select only one and assign score.	o not double check.	
	MEDIUM Buffers average	50m (164ft) or more around wetland pe ge 25m to <50m (82 to <164ft) around	wetland perimeter (4)	
	NARROW, Buffers avera	age 10m to <25m (32ft to <82ft) arounts average <10m (<32ft) around wetlar	d wetland perimeter (1)	
	2b. Intensity of surrounding land us	se. Select one or double check and a	verage.	
	7 I OW. Old field (>10 year	or older forest, prairie, savannah, wild rs), shrub land, young second growth	forest: (5)	
	MODERATELY HIGH. R	esidential, fenced pasture, park, cons open pasture, row cropping, mining, c	ervation tillage, new falle	ow field. (3)
0 07	Metric 3. Hydrolog			
21 37		-		
max 30 pts. subtotal	3a. Sources of Water. Score all th High pH groundwater (5)	at apply. 3b.	Connectivity. Score all 100 year floodpla	
* ************************************	Other groundwater (3)  Precipitation (1)			lake and other human use (1) pland (e.g. forest), complex (1)
in. g Lin	Seasonal/Intermittent sur		Part of riparian o	r upland corridor (1) uration. Score one or dbl check.
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Perennial surface water ( 3c. Maximum water depth. Select		Semi- to perman	ently inundated/saturated (4)
Alaka a	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6i		Regularly inunda Seasonally inunda	
	<b>Y</b> <0.4m (<15.7in) (1)		Seasonally satur	ated in upper 30cm (12in) (1)
	None or none apparent (	ogic regime. Score one or double ched 12) Check all disturbances observed	ck and average.	
	Recovered (7)	ditch	point source (nor filling/grading	nstormwater)
E ST	Recovering (3) Recent or no recovery (1	tile dike	road bed/RR trac	:k
		weir stormwater input	dredging other	
10 63	Motric 4 Habitat A	Alteration and Develo	ppment.	
19 50			Lauranuar	
max 20 pts. subtotal	4a. Substrate disturbance. Score None or none apparent (	one or double check and average. 4)		
	Recovered (3)	•,		
	Recovering (2) Recent or no recovery (1			
	4b. Habitat development. Select of Excellent (7)	nly one and assign score.		
	Very good (6) Good (5)			
	Moderately good (4)			
	Fair (3) Poor to fair (2)			+
<b>*</b>	Poor (1) 4c. Habitat alteration. Score one of	or double check and average.		
	None or none apparent (	9) Check all disturbances observed		
	Recovered (6) Recovering (3)	mowing grazing	shrub/sapling rei	
<u> </u>	Recent or no recovery (1		sedimentation dredging	
163		woody debris removal	farming nutrient enrichme	ont
subtotal this pa	<b>_</b> age	toxic pollutants	nutrient enrichm	SI II

last revised 1 February 2001 jjm

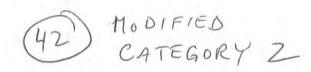
Site: ₩\	M-0	94	Rater(s): (L	WISF	Date: 0/02/18	
5. subtotal fire	5 st page				///	
NA 5	3 M	etric 5. Special V	Vetlands.	•		
max 10 pts. subtot	tal Chec	ck all that apply and score as in	dicated.			
		Bog (10) Fen (10)				
- A - 384		Old growth forest (10)	<b>5</b> \			
	-	Mature forested wetland ( Lake Erie coastal/tributary		drology (10)		
		Lake Erie coastal/tributar	wetland-restricted hydro	ology (5)		
		Lake Plain Sand Prairies Relict Wet Prairies (10)	(Oak Openings) (10)			
Known occurrence state/federal th			ederal threatened or enda	reatened or endangered species (10)		
	-	Significant migratory song Category 1 Wetland. See	Question 1 Qualitative R	usage (10) ating (-10)		
11	i Me			erspersion, microto	onogranhy	
11 00	ı				opograpity.	
max 20 pts. subtota	al 6a. V	Vetland Vegetation Communitie		Community Cover Scale		
	Score	all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2	471 acres) contiguous area	
	-	Aquatic bed Emergent	1	Present and either comprises sm		
10	-	2 Shrub		vegetation and is of moderate	quality, or comprises a	
,		7 Forest		significant part but is of low qua		
		Mudflats	2	Present and either comprises sig		
	-	<del>V</del> -		vegetation and is of moderate of	quality or comprises a small	
	-	Open water		part and is of high quality		
	Sh h	Other	3	Present and comprises significan	t part, or more, of wetland's	
		orizontal (plan view) Interspers	ion.	vegetation and is of high quality		
100	Selec	t only one.				
ž4 .	-	High (5)		Narrative Description of Vegetation Quality		
	-	Moderately high(4)  Moderate (3)	low	Low spp diversity and/or predomi	nance of nonnative or	
	-	Moderately low (2)	1	disturbance tolerant native spec		
	-		mod	Native spp are dominant compon	ent of the vegetation,	
	-	Low (1) None (0)		although nonnative and/or distu	rbance tolerant native spp	
	6c C	None (0) overage of invasive plants. Re	for	can also be present, and specie	es diversity moderate to	
	to Tah	ole 1 ORAM long form for list.	/dd	moderately high, but generally w	w/o presence of rare	
		luct points for coverage		threatened or endangered spp		
	- C	Extensive >75% cover (-5)	high	A predominance of native species		
•		Moderate 25-75% cover (-3)	8/	and/or disturbance tolerant native		
	<u>                                   </u>	Sparse 5-25% cover (-1)	) )	absent, and high spp diversity a	nd oπen, but not always,	
1.0	-	Nearly absent <5% cover (	O)	the presence of rare, threatened	i, or endangered spp	
		Absent (1)	,	Open Water Class Quality		
	. 6d M	icrotopography.	0			
		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)	500)	
		Vegetated hummucks/tuss	ucks 2	Moderate 1 to <4ha (2.47 to 9.88		
	-	Coarse woody debris >15c		High 4ha (9.88 acres) or more	acres)	
		Standing dead >25cm (10in	` '	riigit 4ila (3.00 acres) oi filore		
		Amphibian breeding pools	•	aphy Cover Scale		
		<u> </u>	0	Absent		
				Present very small amounts or if n	nore common	
•			ı	of marginal quality	ioro common	
			2	Present in moderate amounts, but	not of highest	
			-	quality or in small amounts of high		
			3	Present in moderate or greater and		
^ /1			, and the second	and of highest quality	iodino	
الصاه				,		

Site: A362	0001 WIM-95 Rater(s): JF, CLW Date: 10-2-18
l l	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)
14 16	0.5 to <5 acres (0.12 to <1.21a) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
17.10	<0.1 acres (0.04ha) (0 pts)
The a	Metric 2. Upland buffers and surrounding land use.
4 3	De get dechte abeele
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)
777	Metric 3. Hydrology.
120 51	
max 30 pts. subtotal	3a. Sources of Water. Score all that apply.  3b. Connectivity. Score all that apply.
	High pH groundwater (5) Other groundwater (3)  High pH groundwater (5) Other groundwater (3)  100 year floodplain (1) Between stream/lake and other human use (1)
	Precipitation (1) Part of wetland/upland (e.g. forest), complex (1)
	Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  Perennial surface water (lake or stream) (5)  3d. Duration inundation/saturation. Score one or dbl check
	Perennial surface water (lake or stream) (5)  3d. Duration inundation/saturation. Score one or dol check  3c. Maximum water depth. Select only one and assign score.  Semi- to permanently inundated/saturated (4)
	>0.7 (27.6in) (3) Regularly inundated/saturated (3)
	0.4 to 0.7m (15.7 to 27.6in) (2) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
	3e. Modifications to natural hydrologic regime. Score one or double check and average.
	None or none apparent (12) Check all disturbances observed
	Recovered (7) ditch point source (nonstormwater) Recovering (3) tile filling/grading
	Recovering (3) tile filling/grading road bed/RR track
18 55	weir dredging
	stormwater input other
1 1 11	Metric 4. Habitat Alteration and Development.
B X	
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
	Recovering (3) grazing herbaceous/aquatic bed removal sedimentation
	selective cutting dredging
65	woody debris removal farming nutrient enrichment
subtotal this pa	
last revised 1 Februa	y 2001 jjm

Site:		Rate	r(s):		Date:
su	btotal first page  Metric &	5. Special Wetlar	nds.	N/A	
max 10 pts.	Bog Fen Old Matu Lake Lake Relic Know Sign Cate	growth forest (10) ure forested wetland (5) e Erie coastal/tributary wetland- e Erie coastal/tributary wetland- e Plain Sand Prairies (Oak Ope et Wet Prairies (10) wn occurrence state/federal thre ifficant migratory songbird/wate egory 1 Wetland. See Question	restricted hydro nings) (10) eatened or enda r fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)	
10	Metric 6	. Plant commun	ities, int	erspersion, microto	pography.
max 20 pts.	subtotal 6a. Wetland V	egetation Communities.	Vegetation	Community Cover Scale	
		ent using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24)	71 acres) contiguous area
		atic bed	1	Present and either comprises sma	
	\	rgent		vegetation and is of moderate qu	
	∛ 💢 Shru	b		significant part but is of low quali	tv
	Fore	st	2	Present and either comprises signi	
	Mudf	lats		vegetation and is of moderate qu	
	Oper	n water		part and is of high quality	anty or comprises a small
	Othe		3		
		(plan view) Interspersion.	3	Present and comprises significant	part, or more, or wetland's
	Select only one		B	vegetation and is of high quality	
	High		Narrativo De	escription of Vagatation Quality	
		erately high(4)		escription of Vegetation Quality	
	<del></del>	erate (3)	low	Low spp diversity and/or predomina	
		erately low (2)		disturbance tolerant native specie	
	Low	- , , , ,	mod	Native spp are dominant componer	
	None			although nonnative and/or disturb	
		of invasive plants. Refer		can also be present, and species	
		M long form for list. Add		moderately high, but generally w/	o presence of rare
	or deduct points	9	1.7.1	threatened or endangered spp	
		nsive >75% cover (-5)	high	A predominance of native species,	
		rate 25-75% cover (-3)		and/or disturbance tolerant native	
		` '		absent, and high spp diversity an	
	· · · · · · · · · · · · · · · · · · ·	se 5-25% cover (-1)		the presence of rare, threatened,	or endangered spp
	Abse	y absent <5% cover (0)	NA. ICI C. I	0 18/4 51 5 11	
		• •		Open Water Class Quality	
	6d. Microtopog		0	Absent <0.1ha (0.247 acres)	
		nt using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acre	
	<del></del>	tated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 a	cres)
		se woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
		ling dead >25cm (10in) dbh iibian breeding pools	Microtopogr	aphy Cover Scale	
	,		0	Absent	
			1	Present very small amounts or if mo of marginal quality	ore common
			2	Present in moderate amounts, but r quality or in small amounts of high	not of highest nest quality
			3	Present in moderate or greater amo	
1				and of highest quality	•

End of Quantitative Rating. Complete Categorization Worksheets.

# WIM-96



# **Background Information**

Name: JOHN FREELAND	
Date: 11-26-2018	
Affiliation: MANNIK à SMITH GROUP	
A 1 1	= 01/1/302
Phone Number: (2) 1001 2000 CIRCLE MAUMEL	- OH 4137)
e-mail address: $(419)891-2222 \times 2013$	
JEREELAND ON MANNIKSMITH	+GROYP, com
Name of Wetland: WIM _ 96	
Vegetation Communit(les):	
HGM Class(es): RIVERINE / DEPRESSIONA	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, 1	FIGURE 4.
Lat/Long or UTM Coordinate 111 101/93 - 52 776 99	S D. Eleganis S. T. III. (Low Visconia)
USGS Quad Name	
County	
Township	
FLAT ROCK 13N, REGU	
Section and Subsection	
Hydrologic Unit Code 04(000/20503	
Site Visit 10-3-2018	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
SOIL SURVEY OF HURON COUNTY, OHIO	
Delineation report/map  A TTACHED	

ketch: Include north arrow,	relationship with other surface y		
	ciamonomp min omer canaco i	vaters, vegetation zones, etc.	
SEE ATTACH FIGURE 4.	IED WETLAND	DELINEATION	MAP,
mments, Narrative Discussio	on, Justification of Category Cha	ınges:	

WIM-96

# 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.

	Later the catablishing scoring boundaries	done?	not applicable
# Step 1	Steps in properly establishing scoring boundaries  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 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 untland in a few rebin and in a star and a	The state of the s	
	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.	
	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 3 wetland	Go to Question 4
	Significant Breeding or Concentration Area. Does the wetland	Go to Question 4 YES	(3)
	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
Т	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	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 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 canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

			/
Ob	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	(A)
	the state of the supplier of the state of th	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	Go-to Question 10
9b	These the wetland's hydrology result from measures designed to	YES	(NO)
30	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
-	the stand have a predominance of native species will lill 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	
2.7	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	A-
	to the westland located in	YES 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	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	GO to equisition 11	A
44	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 Marlon 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 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 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 pellita Carex sartwelli Gentiana andrewsis Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanihemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

Site: WIM -	96	Rater(s): エチ, こい	N .	Date: 10-3-18
max 6 pts. subtotal	Metric 1. Wetland Ar Select one size class and assign score	ea (size).		
	>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10.1h 3 to <10 acres (1.2 to <4ha)  0.3 to <3 acres (0.12 to <1.2 0.1 to <0.3 acres (0.04 to <0 <0.1 acres (0.04ha) (0 pts)	a) (4 pts) (3 pts) ha) (2pts) .12ha) (1 pt)		
5 7	Metric 2. Upland but	fers and surround	ling land use.	
max 14 pts. subtotal	MEDIUM. Buffers average 2 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. Resi	i (164ft) or more around wetland p 25m to <50m (82 to <164ft) aroun 10m to <25m (32ft to <82ft) arou verage <10m (<32ft) around wetla	perimeter (7) d wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) n forest. (5) aservation tillage, new fallo	ow field. (3)
13 20	Metric 3. Hydrology.			
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 (lak 3c. Maximum water depth. Select onl >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (3) <ul> <li><a href="https://www.com/score"></a></li> <li><a href="https://www.com/score"></a></li> <li>3a. Modifications to natural hydrologic</li> </ul>	e water (3) e or stream) (5) 3d y one and assign score. (2) regime. Score one or double ch	Part of wetland/u Part of riparian o Part of riparian o Duration inundation/sat Semi- to perman Regularly inunda Seasonally inund Seasonally satur eck and average.	ain (1) /lake and other human use (1) /lake and other human use (1) /pland (e.g. forest), complex (1) r upland corridor (1) /uration. Score one or dbl checlently inundated/saturated (4) /tted/saturated (3)
	Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observe ditch tile dike weir stormwater input	point source (nor filling/grading road bed/RR trad dredging other	
10 30	Metric 4. Habitat Alt	eration and Devel	opment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only Excellent (7) Very good (6) Y Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
	4c. Habitat alteration. Score one or d	ouble check and average.  Check all disturbances observe	ed .	
30 subtotal this p	Recovered (6)  X Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rer	atic bed removal

last revised 1 February 2001 jjm

Site:	WIM	1-96	Rater(s):	F, CLW	Date: 10 - 3 - 1
s	30 subtotal first	Dage  Metric 5. Special W	/etlands.	N/4	
may 10 pts		Charle all that a second			
max 10 pts.	subtotal	Check all that apply and score as inc Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (8 Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Known occurrence state/fe Significant migratory songly Category 1 Wetland. See	5) wetland-unrestricted hy wetland-restricted hydro Oak Openings) (10) deral threatened or end oird/water fowl habitat or	ology (5) angered species (10) usage (10)	
12	42	Metric 6. Plant com			topography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communitie	s. <u>Vegetation</u>	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 s vegetation and is of moderate significant part but is of low q	e quality, or comprises a
		Forest Mudflats Open water	2	Present and either comprises s vegetation and is of moderate part and is of high quality	ignificant part of wetland's
		Other6b. horizontal (plan view) Interspersion	3 on	Present and comprises signification vegetation and is of high qual	
		Select only one. High (5)	Narrativo D	escription of Vegetation Quality	
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predor disturbance tolerant native sp	ninance of nonnative or
		Moderately low (2) Low (1) None (0)	mod	Native spp are dominant compo although nonnative and/or dis	onent of the vegetation, turbance tolerant native spp
		6c. Coverage of invasive plants. Refito Table 1 ORAM long form for list. A	er dd	can also be present, and spec moderately high, but generally threatened or endangered spe	w/o presence of rare
		or deduct points for coverage	high	A predominance of native speci	
		Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)		and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten	and often, but not always,
		Nearly absent <5% cover (0 Absent (1)	•	Open Water Class Quality	· .
		6d. Microtopography.  Score all present using 0 to 3 scale.	0	Absent <0.1ha (0.247 acres)	
		Vegetated hummucks/tussu	cks 2	Low 0.1 to <1ha (0.247 to 2.47 a Moderate 1 to <4ha (2.47 to 9.8	
		Coarse woody debris >15cn Standing dead >25cm (10in)	n (6in) 3	High 4ha (9.88 acres) or more	oo acres)
		1 Amphibian breeding pools		aphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if of marginal quality	
			2	Present in moderate amounts, b quality or in small amounts of i	highest quality
1,			3	Present in moderate or greater a	amounts

.

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-96

# **ORAM Summary Worksheet**

		circle answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES (NO')	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO')	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	,2	
	Metric 2. Buffers and surrounding land use	5	
	Metric 3. Hydrology	13	
	Metric 4. Habitat	(0	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	12	
	TOTAL SCORE	42	Category based on score breakpoints  MODIFIED CATEGO

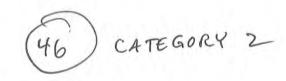
Complete Wetland Categorization Worksheet.

# 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 C	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	10	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	(N6)	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?  MODIFIED 2	YES  Wetfand 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 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.

	Fin	al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

Name:	
JOHN FREELAND	
Date: 10 -1 - 2018	
Affiliation: MANNIK & SMITH GROUP	
Address:	215
1800 INDIANWOOD GIRCLE CIRC	LE
(419) 891-1595	
e-mail address: ifreeland a manniksmi	tharoup. C
Name of Wetland: WIM - 91/97	
Vegetation Communit(ies):  PRIMARILY PFO WITH SECONDARY PEM HGM Class(es):	: P5s
DEPRESSIONAL RIVERINE Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	105 11
SEE ATTACHED LOCATION MAP FIGL	1726 4,
	A CONTROL
Latti see at 1754 Coordinate	
Lat/Long or UTM Coordinate	
USGS Quad Name	
County	
Township	
Section and Subsection	
Hydrologic Unit Code	
Site Visit 10 -1 - 2018	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey	
Soil Survey Soil Survey of HURON COUNTY, OH	
Delineation report/map  ATTACHED	

etland Size (acres, hectares):		
tetch: Include north arrow, relationship with other surface v	vaters, vegetation zones, etc.	7.5
SEE WETLAND DELINE	ATION	NT
	77.74.77	14
MAP, FIGURE Y.		
	g ( 3	
TREE	FLINE ){	
1 12		
	A ( )	
	STREAM - 2 802	
	a ) 1	
Emmy 3	STREAM 2 3 PL 50 P	
A B	3	
Concerned in	1 P	
	The same of the sa	
WOODLAND	a \	
A C		
9 / 11		
{ } / }		
Name to Discussion In the Column of		
mments, Narrative Discussion, Justification of Category Ch	langes:	

### Scoring Boundary Worksheet

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

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

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	NO Go to Question 4
1	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES  Wetland is a Category 3 wetland  Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland  Go to Question 6	Go to Question 6
	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
la	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES  Wetland is a Category 3 wetland.  Go to Question 8b	NO Go to Question 8b

			10)
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	Go to Question 9c
	To advent budge logical 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 Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES  Wetland is a Category 3 wetland.  Go to Question 11	NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erle, 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

teristic	plant	species.
	teristic	teristic plant

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 stricta Carex atherode. Carex buxbaumi Carex pelliti. 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.

ORAM v. 5.0 Field Form Quantitative Rating Rater(s): JF Date: Site: WIL Metric 1. Wetland Area (size). Select one size class and assign score. max 6 pts subtotal >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. max 14.pts. subtotal 2a. 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. Connectivity. Score all that apply. Sources of Water. Score all that apply. max 30 pts. subtotal 3a. High pH groundwater (5) 100 year floodplain (1) 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) Duration inundation/saturation. Score one or dbl check. 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) <0.4m (<15.7in) (1) Seasonally saturated in upper 30cm (12in) (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) filling/grading Recovering (3) tile road bed/RR track Recent or no recovery (1) dike dredging weir ADJACENT stormwater input other Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. max 20 pts. 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. None or none apparent (9) Check all disturbances observed shrub/sapling removal mowing Recovered (6) herbaceous/aquatic bed removal Recovering (3) grazing sedimentation Recent or no recovery (1) clearcutting selective cutting dredging woody debris removal farming nutrient enrichment toxic pollutants last revised 1 February 2001 jjm

SOCIOL MANAGEMENT	Form Quantitative Rating	D=4==/=\-			
Site: WIM	- 91/71	Rater(s):	JF		Date: 10/1/20
30 subtotal firs	1				
0 34	Metric 5. Spe	cial Wetlands.	1	K	
ax 10 pts, subtot	Bog (10) Fen (10) Old growth fore: Mature forested Lake Erie coast Lake Plain Sand Relict Wet Prain Known occurrer Significant migra	st (10)  wetland (5) al/tributary wetland-unrestri al/tributary wetland-restricte Prairies (Oak Openings) ( ies (10) nce state/federal threatened atory songbird/water fowl ha	ed hydrolo 10) I or endar abitat or u	ngy (5) ngered species (10) sage (10)	
12 46 x 20 pts, subtots	Metric 6. Plan		, inte	rspersion, mic	rotopography.
x 20 pts. subtota	6a. Wetland Vegetation C Score all present using 0 to			ommunity Cover Scale	
	Aquatic bed Emergent Shrub	0 3 scale.	1	Present and either compris	erate quality, or comprises a
	Forest Mudflats Open water		2	Present and either compris	es significant part of wetland's erate quality or comprises a small
	Other6b. horizontal (plan view)	Interspersion.	3		nificant part, or more, of wetland's
	Select only one. High (5)	Narr	ative Des	cription of Vegetation Qu	ality
	Moderately high(		low		edominance of nonnative or
	Moderately low (Low (1) None (0) 6c. Coverage of invasive programs to Table 1 ORAM long form	olants. Refer	mod	can also be present, and	r disturbance tolerant native spp species diversity moderate to erally w/o presence of rare
	or deduct points for coverage Extensive >75% Moderate 25-75% Sparse 5-25% co	cover (-5) % cover (-3) over (-1)	high	absent, and high spp dive	pecies, with nonnative spp nt native spp absent or virtually ersity and often, but not always, atened, or endangered spp
	Nearly absent <5 Absent (1)			pen Water Class Quality	200
	<ol> <li>6d. Microtopography.</li> <li>Score all present using 0 to</li> </ol>	3 ecolo		Absent < 0.1ha (0.247 acres	
	Vegetated humm			Low 0.1 to <1ha (0.247 to 2	
	Coarse woody de			Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo	
	Standing dead >2 Amphibian breed	25cm (10in) dbh	V. 1. 1. 1.	phy Cover Scale	-
			0	Absent	
				Present very small amounts of marginal quality	
				Present in moderate amoun quality or in small amounts	s of highest quality
			3	Present in moderate or grea and of highest quality	ter amounts

End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO')	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 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	
reading	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	14	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	12	
	TOTAL SCORE	46,	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		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		Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES  Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, 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.

Fir	nal Category	
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
A CTYL - 17
MANNIK & SMITH GROUP
Address:  1800 INDIAN WOOD CIRCLE, MAKINEE, OH 43537
(419) 891-2222 × 2013
e-mail address: TFREE LAND @MANNIKSMITHGROUP. COM
Name of Wetland: 98
Vegetation Communit(ies):
HGM Class(es):
RIVERINE DEPRESSIONAL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAR FIGURE 4.
·
Lettle see a LTM Coordinate
Lat/Long or UTM Coordinate 41.092612, -82,75974
USGS Quad Name
County
Township Township
CENTERTON T2N R24W
Section and Subsection /
Hydrologic Unit Code 041000120405
Site Visit 10-4-2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
SOIL SURVEY OF HURON COUNTY, OH
Delineation report/map

Vetland Size (acres, hectares):  Retch: Include north arrow, relationship w	2.71 ACRE	
ketch: Include north arrow, relationship w	ith other surface waters, vege	etation zones, etc.
SEE ATTACHED MAP, FIGURE	WETLAND 4.	DELINEATION
mments, Narrative Discussion, Justification	on of Category Changes:	
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	÷	
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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.

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.	作5	
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	11331
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	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
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	NO) Go to Question 8b

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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
	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	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	INO
	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
36	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	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
	present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	) (TO	
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 i	nlant enocine
I CLUTC I.	Ondidetensue i	piant 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 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 stricta Carex atherodes Carex buxbaumin Carex pellita Carex sartwellit 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:	W1M-098	Rater(s): 5F, CLW	Date: 10-4-18
2	Metric 1. Wetland	Area (size).	-177
nax 6 pts.	Select one size class and assign >50 acres (>20.2ha) (6 25 to <50 acres (10.1 to 10 to <25 acres (4 to < 3 to <10 acres (1.2 to < 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04ha) (0	pts) 0 <20.2ha) (5 pts) 10.1ha) (4 pts) 64ha) (3 pts) 0 <1.2ha) (2pts) to <0.12ha) (1 pt)	5657
0		buffers and surrounding la	nd use.
ax 14 pts.	WIDE. Buffers average MEDIUM. Buffers aver NARROW. Buffers aver VERY NARROW. Buffers aver VERY LOW. 2nd grow LOW. Old field (>10 years) MODERATELY HIGH.	th. Select only one and assign score. Do not doul a 50m (164ft) or more around wetland perimeter (7 age 25m to <50m (82 to <164ft) around wetland per arage 10m to <25m (32ft to <82ft) around wetland ers average <10m (<32ft) around wetland perimete use. Select one or double check and average. th or older forest, prairie, savannah, wildlife area, e ears), shrub land, young second growth forest. (5) Residential, fenced pasture, park, conservation til al, open pasture, row cropping, mining, construction	erimeter (4) perimeter (1) er (0) etc. (7) lage, new fallow field. (3)
10	Metric 3. Hydrolo	물이 얼마나 사람이 되었다. 그렇지 말이 나를 가는 생각이 가게 되었다. 이 그리고 있다고 있다고 있다.	,
nax 30 pts.	High pH groundwater (3) Other groundwater (3) Precipitation (1) Seasonal/Intermittent s Perennial surface wate 3c. Maximum water depth. Selev >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27. X <0.4m (<15.7in) (1)	urface water (3) r (lake or stream) (5) ct only one and assign score.  Ser Re(-6in) (2)	vity. Score all that apply. It year floodplain (1) It ween stream/lake and other human use (1) It of wetland/upland (e.g. forest), complex (1 It of riparian or upland corridor (1) Inundation/saturation. Score one or dbl che Ininimal to permanently inundated/saturated (4) It of gularly inundated/saturated (3) It is asonally inundated (2) It is asonally saturated in upper 30cm (12in) (1) It is a sonally saturated in upper 30cm (12in) (1)
	None or none apparent Recovered (7) Recovering (3) Recent or no recovery	(12) Check all disturbances observed point ditch fille filling roa	nt source (nonstormwater) ng/grading d bed/RR track dging
16	Metric 4. Habitat	Alteration and Developmer	nt.
nax 20 pts.	subtotal  4a, Substrate disturbance. Score None or none apparent Recovered (3) Recovering (2) Recent or no recovery  4b. Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	(1)	
	Poor (1) 4c. Habitat alteration. Score one	or double check and average.	
	None or none apparent Recovered (6) Recovering (3) Recent or no recovery	(9) Check all disturbances observed mowing shr grazing her clearcutting sec selective cutting woody debris removal farm	ub/sapling removal baceous/aquatic bed removal dimentation dging ming rient enrichment



Microtopography Cover Scale

O Absent

Present very small amounts or if more common of marginal quality

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

End of Quantitative Rating. Complete Categorization Worksheets.

Amphibian breeding pools

W1M-98

# **ORAM Summary Worksheet**

		circle	
		answer or	D 14
		insert	Result
		score	4
Narrative Rating	Question 1 Critical Habitat	YES (NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (10)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	10	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	15	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	(3	
	TOTAL SCORE	57	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

# Wetland Categorization Worksheet

Choices	Circle one	^	Evaluation of Categorization I isult 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	(10)	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	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 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**

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Date:	
11-19-20 ( 8 Affiliation:	
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Phone Number: (419) 89/-2222 X 20/3	
e-mail address:  JFREELAND @MANNIKSMITHGROUP. CO	
Name of Wetland:	m
W(M_100	
PRIMARILY PEM WITH MINOR PSS/PFU COMPUN	JENT.
HGM Class(es):  DEPRESSION A  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.  SEE ATTACHED LUCATION MAP FIGURE 4.	
SEE ATTACHED LOCATION FUTT FIGURE 1.	
Lat/Long or UTM Coordinate	
41. 0931/, -82.75857 USGS Quad Name	
County	
HURON	
TOWNSHIP CENTERTON T2N, R24W	
Section and Subsection	
Hydrologic Unit Code 04/000/20405	
Site Visit	
10-4-2018  National Wetland Inventory Map	
Ohio Wetland Inventory Map	
SOIL SURVEY OF HURON COUNTY, OH.	
Delineation report/map  ATTA CLL F()	. 7

WIM -1	00		
etland Size (acres, hectares):	0,04	Company and the Company of the Compa	
etch: Include north arrow, relationshi	p with other surface wa	ters, vegetation zones, etc.	
SEE ATTACHED	WETLAND	DELINEATION	MAT
FIGURE 4.			
mments, Narrative Discussion, Justifi	cation of Category Cha	nges:	
	10		

WIM\_100

### **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.	Y€5	
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).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES  Wetland is a Category 3 wetland.  Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly 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
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
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

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

Toble 4	Characteristic	plant encelor	
Table 1.	Characteristic	plant species.	r

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	Zygademus 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 stricta Carex atherode. Carex buxbaumi Carex sartwelli Gentiana andrewsi Helianthus grosseserratus Liatris spicate Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellin

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

Site:	WW	-100		Rater(s): 5	-, CLW		Date: 12 - 4 -	18
max 6 pts.	subtotal	Select one size   >50	te class and assign sco acres (>20.2ha) (6 pts) to <50 acres (10.1 to <2 to <25 acres (4 to <10.1 to <10 acres (1.2 to <4ha to <3 acres (0.12 to <1. to <0.3 acres (0.04 to < 1 acres (0.04ha) (0 pts)	re. ) :0.2ha) (5 pts) ha) (4 pts) i) (3 pts) :2ha) (2pts) :0.12ha) (1 pt)		51.	CATE	30R
a	9		2. Upland bu		rrounding	g land use.	-	
max 14 pts.		WILL ME NAI VEI 2b. Intensity VEI LOV	average buffer width. 3 DE. Buffers average 50 DIUM. Buffers average RROW. Buffers average RY NARROW. Buffers of surrounding land use RY LOW. 2nd growth o W. Old field (>10 years, DERATELY HIGH. Res	m (164ft) or more aroui 25m to <50m (82 to <7 e 10m to <25m (32ft to average <10m (<32ft) a . Select one or double r older forest, prairie, s ), shrub land, young se sidential, fenced pastur	nd wetland perim (64ft) around wet o <82ft) around wetland per check and avera avannah, wildlife cond growth fore e, park, conserva	eter (7)  cland perimeter (4)  etland perimeter (1)  etland perimeter (0)  age.  area, etc. (7)  st. (5)  ation tillage, new fallow	/ field. (3)	
110	75	-	3. Hydrology			2.777.77.3.4		
max 30 pts.		Hig Oth Pre Sea Per 3c. Maximum > 0.4 < 0.4	of Water. Score all that h pH groundwater (5) er groundwater (3) cipitation (1) asonal/Intermittent surfa ennial surface water (la water depth. Select or 7 (27.6in) (3) to 0.7m (15.7 to 27.6in) 4m (<15.7in) (1) ions to natural hydrologi	ce water (3) ke or stream) (5) nly one and assign scor (2)	3d. Du	Part of wetland/upl Part of riparian or u ration inundation/satur Semi- to permaner Regularly inundate Seasonally inundat Seasonally saturat	(1) ke and other human use and (e.g. forest), compl upland corridor (1) ation. Score one or dbl tty inundated/saturated d/saturated (3)	lex (1) I check. I (4)
		Red	ne or none apparent (12 covered (7) covering (3) cent or no recovery (1)	Check all disturbance ditch tile dike weir stormwater inp		point source (nons filling/grading road bed/RR track dredging other	tormwater)	
15 max 20 pts.		4a. Substrate Nor Rec Rec Rec 4b. Habitat de Ver Good Fail Poo	disturbance. Score on the or none apparent (4) covered (3) covering (2) the covering (2) the covering (2) the covering (3) covering (4) the covering (4) the covering (5) the covering (6) the covering (7) the covering (7) the covering (8) the co	e or double check and y one and assign score	average.	ment.		
	UQ subtotal this pag	Nor Rec Rec Rec	teration. Score one or one or one or one or one apparent (9) covered (6) covering (3) cent or no recovery (1)	Check all disturbance mowing grazing clearcutting selective cuttin woody debris toxic pollutants	es observed	shrub/sapling remo herbaceous/aquati sedimentation dredging farming nutrient enrichmen	bed removal	1.
last revise	d 1 Februar	y 2001 jjm		10 m	og bones	and 2 car Starm	(4585	

7

Site:	WIN	1-10	Rat	er(s): 5	F-CLW I	Date: 10-4-1
	41	7				
	subtotal first	Dade				
10	dutulai irist		in E. Chaniel West			
MX	40	weth	ic 5. Special Wetla	inas.		
may 10 pte	subtotal	<b>⊿</b>	managara da			
max 10 pts.	Subtotal	Check a	II that apply and score as indicated.			
		-	Bog (10) Fen (10)			
15			Old growth forest (10)			
-			Mature forested wetland (5)			
			Lake Erie coastal/tributary wetlan	d-unrestricted hy	drology (10)	
		_	Lake Erie coastal/tributary wetlan		ology (5)	
	9		Lake Plain Sand Prairies (Oak Op	penings) (10)		
			Relict Wet Prairies (10) Known occurrence state/federal to	prestaned or en	languaged appelles (19)	
			Significant migratory songbird/wa	ter fowl habitat o	rusage (10)	1.42
			Category 1 Wetland. See Question			44.
. 1		Mote				
11	6	MICH	ic o. Flant commu	mues, m	terspersion, microtop	ograpny.
max 20 pts.	subtotal	6a Wetl	and Vegetation Communities.	Vogetation	Campanita Campa Santa	
Audilline Prints	Y,		present using 0 to 3 scale.	vegetation	Community Cover Scale Absent or comprises <0.1ha (0.2471	acree) contiguous area
		0	Aquatic bed	1	Present and either comprises small p	
4		1	Emergent		vegetation and is of moderate qual	
	- 1	2	Shrub		significant part but is of low quality	
		2	Forest	2	Present and either comprises signific	
	. 24.	0	Mudflats Open water		vegetation and is of moderate qual	ity or comprises a small
		0	Other	3	part and is of high quality	al automorphism and the state of the state o
	6	6b. horiz	ontal (plan view) Interspersion.	3	Present and comprises significant pa vegetation and is of high quality	rt, or more, or wetland's
-		Select on		4	regetation and to or riight quality	
			High (5)	Narrative D	escription of Vegetation Quality	
	416		Moderately high(4)	low	Low spp diversity and/or predominan	
	* 1	_	Moderate (3)	-	disturbance tolerant native species	
		1	Moderately low (2) Low (1)	mod	Native spp are dominant component	
			None (0)		although nonnative and/or disturba can also be present, and species d	versity moderate to
		6c. Cove	rage of invasive plants. Refer		moderately high, but generally w/o	
		to Table 1	1 ORAM long form for list. Add		threatened or endangered spp	3-1
			points for coverage	high	A predominance of native species, w	
		-	Extensive >75% cover (-5)		and/or disturbance tolerant native s	pp absent or virtually
			Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity and	
		1	Nearly absent <5% cover (0)	_	the presence of rare, threatened, or	endangered spp
			Absent (1)	Mudflat and	Open Water Class Quality	
			topography.	0	Absent <0.1ha (0.247 acres)	_
			present using 0 to 3 scale,	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		0	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acr	es)
		1	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
		7	Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopoo	raphy Cover Scale	
		-6-	in a searing kaola	0	Absent	
				1	Present very small amounts or if more	common
					of marginal quality	
				2	Present in moderate amounts, but no	
					quality or in small amounts of highe	
120				3	Present in moderate or greater amount	nts

End of Quantitative Rating. Complete Categorization Worksheets.

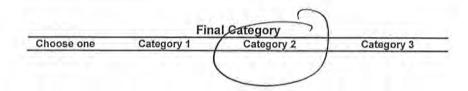
# **ORAM Summary Worksheet**

		, ,	
		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	
rearing	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	16.	
	Metric 4. Habitat	15	
	Metric 5. Special Wetland Communities	$\widehat{}$	
	Metric 6. Plant communities, interspersion, microtopography	11	
	TOTAL SCORE	51	Category based on score breakpoints
		•	

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

## Wetland Categorization Worksheet

Choices	Circle one	9	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	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 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 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.	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.

# Wetland Categorization Worksheet

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

Choose one	/ Category 1 /	al Category Category 2	Category 3
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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 GNAY ZONE	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		
. Galling	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	18	
	Metric 4. Habitat	-	
= 1	Metric 5. Special Wetland Communities	Ô	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	32	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Site:	APEX		Rater(s):	SF	, clu	Date: 10-5-/
	26					
-	subtotal first p	oe ☐Metric 5. Special	Wotlands			
0	26	Metric 5. Special	i wellands.			
max 10 pt	s. subtotal	Check all that apply and score a	s indicated.			
		Fen (10)				
		Old growth forest (10) Mature forested wetla				
			itary wetland-unrestric	ted hydrol	ogy (10)	
		Lake Erie coastal/tribu	itary wetland-restricted	d hydrolog		
		Lake Plain Sand Prair Relict Wet Prairies (10	ies (Oak Openings) (1	0)		
			ite/federal threatened	or endang	ered species (10)	
		Significant migratory s	ongbird/water fowl ha	bitat or us	age (10)	
	1		See Question 1 Qualit			Service of the last
6	27	Metric 6. Plant c	ommunities	, inter	spersion, mic	rotopograpny.
max 20 pt	s. subtotal	So Welland Vegetation Commi	unition Voca	tation Co	mmunity Cover Scale	
max 20 pt	s. subtotal	6a. Wetland Vegetation Commu Score all present using 0 to 3 sc				na (0.2471 acres) contiguous area
		Aquatic bed			resent and either compris	ses small part of wetland's
		2 Emergent				erate quality, or comprises a
		Shrub Forest	-	2 F	significant part but is of le	ses significant part of wetland's
		Mudflats		3 14		erate quality or comprises a small
		Open water	_		part and is of high quality	
		Other	partien	3	resent and comprises sig vegetation and is of high	nificant part, or more, of wetland's
		<ol><li>6b. horizontal (plan view) Inters Select only one.</li></ol>	persion.	10 F 10 T	vegetation and is of riigh	quanty
		High (5)	Narra		ription of Vegetation Qu	
		Moderately high(4)	6.0	low L		redominance of nonnative or
		Moderate (3)  Moderately low (2)		mod M	disturbance tolerant nativ	ve species omponent of the vegetation,
		Low (1)		,,,,,		or disturbance tolerant native spp
		None (0)				species diversity moderate to
		<ol> <li>Coverage of invasive plants to Table 1 ORAM long form for li</li> </ol>			moderately high, but gen threatened or endangere	erally w/o presence of rare
		or deduct points for coverage	Transfer of the contract of th	nigh /		species, with nonnative spp
		Extensive >75% cover				int native spp absent or virtually
		Moderate 25-75% cov				ersity and often, but not always,
		Sparse 5-25% cover (-  Nearly absent <5% co			the presence of rare, three	eatened, or endangered spp
		Absent (1)		lat and O	en Water Class Quality	
		6d. Microtopography.			Absent <0.1ha (0.247 acre	
		Score all present using 0 to 3 sc			ow 0.1 to <1ha (0.247 to )	
		Vegetated hummucks			Noderate 1 to <4ha (2.47 ligh 4ha (9.88 acres) or m	and the same of th
		Standing dead >25cm		~ 1.	1911 1112 (2122 42122) 2111	
		Amphibian breeding p	ools Micro		hy Cover Scale	
			_	7.13	bsent Present very small amount	s or if more common
				' '	of marginal quality	a ar ii mara gamman
			_	2 F	resent in moderate amou quality or in small amoun	
			_	3 F	resent in moderate or gre	to a contract to the contract
				7	and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

WETLAND CLUSTR 102, 103, 104

ORAM v. 5.0 Field Form Quantitative Rating

Site:	州等	( A 38 2000   Rater(s): JF, CLW Date: 10-5-	-18
1	1/	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)	
2	3	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)	
18	21	Metric 3. Hydrology.	
max 30 pts.	subtotal	3b. Connectivity. Score all that apply.    High pH groundwater (5)	lex (1) I check. I (4)
		Be. Modifications to natural hydrologic regime. Score one or double check and average.    None or none apparent (12)   Check all disturbances observed	
5	26	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	A. 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)	
si last revised	ubtotal this pa	C. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (4) Recovering (5) Recovering (7) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recovering (9) Recovering (9) Recovering (1) Re	

Table 1. Characteristi	Table 1. Characteristic plant species.							
invasive/exotic spp	fen species	bog species	0ak Opening species					
Lythrum salicaria Myriophyllum spicatum	Zygadenus elegans var. glaucus Cacalia plantaginea	Calla palustris Carex atlantica var. capillacea	Carex cryptolepis Carex lasiocarpa					

Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre

Calamagrostis canadensis Calamogrostis stricta Carex atherodes Carex stricta Carex flava Carex echinata Najas minor Carex buxbaumii Cladium mariscoides Carex oligosperma Phalaris arundinacea Carex sterilis Calamagrostis stricta Carex pellita Carex trisperma Carex stricta Phragmites australis Carex sartwellii Calamagrostis canadensis Chamaedaphne calyculata Potamogeton crispus Deschampsia caespitosa Quercus palustris Gentiana andrewsii Decodon verticillatus Ranunculus ficaria Eleocharis rostellata Helianthus grosseserratus Eriophorum viridicarinatum Eriophorum virginicum Rhamnus frangula Liatris spicata Laríx laricina Gentianopsis spp. Typha angustifolia Lysimachia quadriflora Nemopanthus mucronatus Typha xglauca Lobelia kalmii Lythrum alatum Schechzeria palustris Parnassia glauca Pycnanthemum virginianum Sphagnum spp. Potentilla fruticosa Silphium terebinthinaceum Vaccinium macrocarpon Rhamnus alnifolia Sorghastrum nutans Rhynchospora capillacea Vaccinium corymbosum Spartina pectinata Vaccinium oxycoccos Salix candida Solidago riddellii Woodwardia virginica Salix myricoides Salix serissima Xyris difformis

wet prairie species

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

# WIM-102, 103, 104

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	NO Go to Question 9d
9c	And Lake Eric water bruste the wetlands primary hydrological influence	Go to Question 10 YES	NO
90	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 Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	NO
	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	NO Complete Quantitative Rating

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

#### 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.

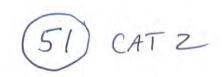
# WIM\_ 102, 103, 104 CLUSTER



## **Background Information**

Name: JOHN FREELAND
Date: 11 - 16 - 2018
Affiliation: MANNIK & SMITH GROUP
Address:
Phone Number:
(419) 891-2222 × 2013
e-mail address: JFREELAND @ MANNIKSMITHGROUP.COM
Name of Wetland: WIM_102, WIM_103, WIM_104
Vegetation Communit(ies):
HGM Class(es): DEPRESSIONAL
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
FIGURE 4, ATTACHED REPORT.
Lat/Long or UTM Coordinate -82.76569, 41.09585
USGS Quad Name
County
TOWNSHIP CENTERTON T2N RZYW
Section and Subsection
Hydrologic Unit Code 041000120405
Site Visit 10 - 5 - 2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SOIL SURVEY OF HURON COUNTY, OH
Delineation report/map  ATTACHED

Name of Wetland:  Wetland Size (acres, hectares):  Netch: Include north arrow, relationship with other surface water	WIM-104	
Wetland Size (acres, hectares): 0.052. 0.027	0.235 ACRE	
Sketch: Include north arrow, relationship with other surface water	ers, vegetation zones, etc.	
FIGURE 4, ATTACHED		
Comments, Narrative Discussion, Justification of Category Chang	jes:	
lingle core t	Cotons	
final score: 32	Category:	



# **Background Information**

Name: JOHN FREELAND	
Date:	
11-16-2018 Affiliation:	
MANNIK & SMITH GROUP	
Address: 1800 INDIANWOOD CIRCLE, MAUMEE, OH 4:	3537
Phone Number: (419) 891-2222 x2013	
e-mail address: JEREELAND @ MANNIKSMITHGROUN	Pam
Name of Wetland: WIM _ 108	. 00. 7
Vegetation Communit(ies):	
PFD / PS S / PE 97 HGM Class(es):	
DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.  SEE ATTACHED LUCATION MAP FIGURE	= 4
SEE ATTACHED COCATION FIRT FIGURE	' '
Lat/Long or UTM Coordinate - 82, 82194 41. 09169	
USGS Quad Name	i C
County	
HURON	
TOWNSHIP CENTERTON TON RZYW	
Section and Subsection	
Hydrologic Unit Code 04/000/20501	
Site Visit 10 - 12 - 18	
National Wetland Inventory Map	
National Wetland Inventory Map  Ohio Wetland Inventory Map	
Ohio Wetland Inventory Map	
Ohio Wetland Inventory Map	

	ectares): 4,3	8		
ketch: Include north a	rrow, relationship wi	th other surface waters, v	egetation zones, etc.	in the second
			DELINEATI	00
MAP FI	GURE 4,			
nments. Narrative Di	scussion. Justificatio	on of Category Changes:		
nments, Narrative Di	scussion, Justificatio	on of Category Changes:		
nments, Narrative Di	scussion, Justificatio	on of Category Changes:		
nments, Narrative Di	scussion, Justificatio	on of Category Changes:		
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mments, Narrative Di	scussion, Justificatio	on of Category Changes:		
mments, Narrative Di	scussion, Justificatio	on of Category Changes:		
mments, Narrative Di	scussion, Justificatio	on of Category Changes:		

WIM-108/108B

#### 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.	489	
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).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	NO Go to Question 2	
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES  Wetland is a Category 3 wetland.  Go to Question 3	Go to Question 3	
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4	
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES  Wetland is a Category 3 wetland  Go to Question 5	Go to Question 5	
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland  Go to Question 6	Go to Question 6	
3	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	
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES  Wetland is a Category 3 wetland.  Go to Question 8b	Go to Question 8b	

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	YES	MO
	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	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
12	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	(NO)
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
44	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 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 naerocarpon 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 buxbaumii 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.

ORAM v. 5.0 Field Form Quantitative Rating

Site: APEX	A3820001	Rater(s): JF, Co	-W	Date: 10-12-18
max 6 pts. subtotal	Metric 1. Wetland  Select one size class and assign socion >50 acres (>20.2ha) (6 pts	Area (size).		(51)
<u></u>	25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 20.3 to <3 acres (0.12 to <10.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to )	1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt) )	ling land use	
max 14.pts. subtotal	Metric 2. Upland bu	Select only one and assign score.	Do not double check.	·
	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth LOW. Old field (>10 years MODERATELY HIGH. ReHIGH. Urban, industrial, control of the con	or older forest, prairie, savannah, wil s), shrub land, young second growth esidential, fenced pasture, park, con open pasture, row cropping, mining,	d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) a forest. (5) servation tillage, new fallo	ow field. (3)
12 28	Metric 3. Hydrology	/.	-	1
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (late in the image) 3c. Maximum water depth. Select of the image) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)	ace water (3) ake or stream) (5) 3d. nly one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
	3e. Modifications to natural hydrolog	ic regime. Score one or double che 2) Check all disturbances observed	eck and average.	ned in apper coom (12m) (1)
	Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile dike weir stormwater input	point source (non- filling/grading road bed/RR track dredging other_	·
11 39	Metric 4. Habitat Al	teration and Develo	opment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2)			
•	Recent or no recovery (1)  4b. Habitat development. Select onl Excellent (7)	y 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 or None or none apparent (9)			
subtotal this pa	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 enrichmer	ic bed removal
iastieviseu i rebiudi	ry Zoorjjill	•		

ORAM v. 5.0 Field Form Quantitative Rating

Site:	Rate	r(s):	Date: 10-/2-/
	39		H
subtot	al first page		0.00
0	39 Metric 5. Special Wetla	nds.	NA
max 10 pts. se	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 thr Significant migratory songbird/wate	restricted hydr enings) (10) reatened or ender fowl habitat o	dangered species (10) or usage (10)
	Category 1 Wetland, See Question		
12			terspersion, microtopography.
max 20 pts. su	blottel 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.		Community Cover Scale
	Aquatic bed	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's
	2 / Emergent	,	vegetation and is of moderate quality, or comprises a
	2 Shrub		significant part but is of low quality
	2 V 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. High (5)	Narrative F	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) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with nonnative spp
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)		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)	Mudflet one	Ones Water Class Ovelity
	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	Microtopog	raphy Cover Scale
	TT. Walter and a second books	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
4-1		3	Present in moderate or greater amounts and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-108/108B

## **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 (O)	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	7	
realing	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	12	
	Metric 4. Habitat		
	Metric 5. Special Wetland Communities	8	
	Metric 6. Plant communities, interspersion, microtopography	12	
	TOTAL SCORE	51	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

# 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	(	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	(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 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	,ÑO	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.

Fin	ial Category	
Choose one Category 1	(Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

Name:	
Date:	
11-16-2018	
Affiliation:	
Address: MANNIK & SMITH GROUP	12500
1800 INDIANWOOD CIRCLE, MAUMEE, OH	4353/
Phone Number: (419) 891-2222 x 2013	
a mail addraga:	Due D Cans
Name of Wetland:	2041, -019
WIM - 107	
Vegetation Communit(ies):	
HGM Class(es):	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, FIGURE	= 4.
	100
Lat/Long or UTM Coordinate	
_82.81557, 41.09645 USGS Quad Name	
USGS Quad Name	
County	
Township	
Section and Subsection T2N, K2YW	
Hydrologic Unit Code	
041000120501	
10-5-18	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey	
our durvey	
Delineation report/map	

vetland Size (acres, hectares): 0.038 Ac	0 F
vetland Size (acres, hectares):  0.038 Ac  ketch: Include north arrow, relationship with other surface water	's, vegetation zones, etc.
SEE ATTACHED WELAN	n DELINEATION
MAP FIGURE 4.	
1011 (14-11-6 1,	
mments, Narrative Discussion, Justification of Category Change	ae.
minerits, Narrative Discussion, Justification of Category Change	

#### 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	1023
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
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
i	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
Ba	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of	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	~
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	(NO)
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	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
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	L
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies Is the wetland a relict wet prairie community	YES	(NO)
9	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. Erle, 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 Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea 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 buxbaumi, Carex pellita Carex sartwellii Gentiana andrewsis 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.

So acres (>20.2ha) (6 pls)	Site:	WIM	1_,109	Rater(s):	J4 F	Date: 10-5-18
25 to 45 dares (10 to 20 20 ta) (6 pts)   25 to 50 dares (10 to 20 20 ta) (5 pts)   10 to 25 acres (4 to 10 tha) (4 pts)   3 to 10 acres (12 to 4 chain) (5 pts)   3 to 10 acres (12 to 4 chain) (5 pts)   3 to 10 acres (10 to 4 acres (0 to 4 chain) (5 pts)   3 to 10 acres (10 to 4 chain) (5 pts)   3 to 10 acres (10 tha) (7 pts)   3 to 24 acres (0 to 4 to 10 acres (10 tha) (5 pts)   3 to 24 acres (0 to 4 to 10 acres (10 tha) (5 pts)   3 to 24 acres (0 to 4 to 20 acres (10 to 20 a	0		Metric 1. We	etland Area (size)		
25 to 45 dares (10 to 20 20 ta) (6 pts)   25 to 50 dares (10 to 20 20 ta) (5 pts)   10 to 25 acres (4 to 10 tha) (4 pts)   3 to 10 acres (12 to 4 chain) (5 pts)   3 to 10 acres (12 to 4 chain) (5 pts)   3 to 10 acres (10 to 4 acres (0 to 4 chain) (5 pts)   3 to 10 acres (10 to 4 chain) (5 pts)   3 to 10 acres (10 tha) (7 pts)   3 to 24 acres (0 to 4 to 10 acres (10 tha) (5 pts)   3 to 24 acres (0 to 4 to 10 acres (10 tha) (5 pts)   3 to 24 acres (0 to 4 to 20 acres (10 to 20 a	U	U				
25 to <0 acres (10.1 to <0.20.2hb) (5 pts) 10 to <0.20 acres (0.1 to <0.1hb) (4 pts) 3 to <10 acres (1.2 to <4hb) (3 pts) 0.3 to <0.3 acres (0.1 to <1.2 hb) (1 pts) 0.1 to <0.3 acres (0.1 to <1.2 hb) (1 pts) 0.1 to <0.3 acres (0.1 to <1.2 hb) (1 pts) 0.1 to <0.3 acres (0.1 to <1.2 hb) (1 pts) 0.1 to <0.3 acres (0.1 to <1.2 hb) (1 pts) 0.1 to <0.3 acres (0.4 to <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 to <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 to <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 tho <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 tho <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 tho <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 tho <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 tho <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 tho <0.1 2hb) (1 pts) 0.1 to <0.3 acres (0.4 tho <0.1 2hb) (1 pts) 0.2 to <0.4 tho <0.1 2hb) 0.3 to <0.4 tho <0.1 2hb) 0.4 to <0.1 tho <0.1 2hb) 0.5 to <0.1	max 6 pts.	subtotal				(7)
10 to <25 acres (4 to <10.1hg) (4 pts) 3 to <10 acres (0.12 to <1.2hg) (2pts) 0.3 to <10 acres (0.12 to <1.2hg) (2pts) 0.1 to <10.3 acres (0.04hg) (9 pts) 40.1 acres (0.0						
0.3 to <3 acres (0.12 to <1.2ha) (Opts) 0.1 to <0.3 acres (0.04 to <0.12ha) (pts) 1. o.1 acres (0.04ha) (0 pts) 1. o.2 bellow (0.04ha) (0.04ha) (0.04ha) (0.04ha) (0.04ha) 1. o.2 bellow (0.04ha) (0.04						
O.1 to -0.3 aeres (0.04 to <0.12 hp) (pts)			3 to <10 acre	s (1.2 to <4ha) (3 pts)		
Metric 2. Upland buffers and surrounding land use.  2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (16-4ft) or more around wetland perimeter. (?)  WEDIUM. Buffers average 50m (16-4ft) or more around wetland perimeter. (?)  WEDIUM. Buffers average 50m (16-4ft) or more around wetland perimeter. (?)  WEDIUM. Suffers average 50m (16-4ft) or more around wetland perimeter. (?)  WEDIUM. Suffers average 50m (16-4ft) or more around wetland perimeter. (?)  WEDIUM. Suffers ()  WEDIUM						
Metric 2. Upland buffers and surrounding land use.    A			× <0.1 acres (0	.04ha) (0 pts)		
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)  MCDIUM. Buffers average 25m to <25m (22 to 145ft) around wetland perimeter (4)  NARROW. Buffers average 25m to <25m (22 to 145ft) around wetland perimeter (7)  NARROW. Buffers average 10m to <25m (22ft to 457t) around wetland perimeter (7)  Low. Old field (10 years), shrub land, young second growth forest. (5)  Weter Low. And growth or older forest, prairie, savarana, widlife area, etc. (7)  LOW. Old field (10 years), shrub land, young second growth forest. (5)  MobiEARTELY HOH. Residential, fenced pasture, park, conservation fillage, new fallow field. (3)  HIGH. Han, industrial, open pasture, row cropping, milhing, censtruction. (1)  Weter Ca. Hydrology.  3a. Sources of Weter. Score all that apply.  High PH groundwater (3)  Percepitation (1)  Seasonal/Intermittent surface water (3)  Percepitation (1)  Seasonal/Intermitty inundated/saturated (3)  Seasonal/Intermitty inundated/saturated (3)  Seasonal/Intermitty inundated/saturated (3)  Percepitation (1)  Recovering (3)  Recovering (3)  Recovering (3)  Recovering (3)  Recovering	-				surrounding	land use.
WiDE, Buffers average 50m (164fl) or more around wetland perimeter (7)   MEDIUM, Buffers average 25m to <50m (28 to 164fl) around wetland perimeter (4)   NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland wetland, 10m (45ft) around	3	5				
WiDE, Buffers average 50m (164fl) or more around wetland perimeter (7)   MEDIUM, Buffers average 25m to <50m (28 to 164fl) around wetland perimeter (4)   NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY NARROW. Buffers average 10m to <25m (32ft to 452ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland perimeter (7)   VERY LOW, 2nd growth or older forest, 10m (45ft) around wetland wetland, 10m (45ft) around	max 14.pts.	subtotal	2a. Calculate average l	ouffer width. Select only one an	d assign score. Do not	double check.
NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  Very NARROW. Buffers average <10m (<25pt around wetland perimeter (1)  2b. Intensity of surrounding land use. Select one or double check and average.  Very LOW. 2d growth or loter 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 failow field. (3)  High. Urban, industrial, open pasture, row cropping, mining, construction. (1)  High High. Residential, fenced pasture, park, conservation tillage, new failow field. (3)  High pri groundwater (3)  Part of vetal analypy.  High phy groundwater (3)  Perennial surface water (alke or stream) (5)  3c. Macmum water depth. Select only one and assign score.  Part of vetal analyphanian or upland condom (1)  Recovered (7)  Recovered (7)  Recovering (3)  Recovered (4)  Recovered (5)  Recovered (6)  Recovered (6)  Recovered (7)  Recovered (7)  Recovered (8)  Recovered (9)  Recov			WIDE, Buffer	s average 50m (164ft) or more	around wetland perimete	er. (7)
VERY NARROW. Buffers average <10m (<2ft) around wetland perimeter (0)   2b. Intensity of surrounding land use. Select one or double check and average.   VERY LOW. 2nd growth or older førest, prairie, savannah, wildliffe area, etc. (7)   LOW. Old field (-10 years), shrubland, young second growth forest. (5)   HiGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)   MODERATELY HiGH. Residential, fenced pasture, park, conservation titlage, new failow field. (3)   HiGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)   Metric 3. Hydrology.			MEDIUM. BU	iffers average 25m to <50m (82	to <164ft) around wetlar	nd perimeter (4)
2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2 and 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 failow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) High High groundwater (5) High phy groundwater (6) High phy groundwater (7) High phy groundwater (8) Perceptitation (1) Seasonal/Intermittent surface water (3) Percental surface water (alke or stream) (5) 3c. Maximum water depth. Select only one and assign score.  3d. Duration inundational and other fruman use (1) Part of ripartan or upland corridor (1) Seasonally inundated (3) Part of vertain inundational control or (1) Seasonally inundated (3) Part of vertain inundational control or (1) Seasonally inundated (3) Recovered (7) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (8) Recovering (9) Recovering (9) Recovering (9) Recovering (1) Recoveri			VERY NARRO	OW. Buffers average <10m (<3	2ft) around wetland peri	meter (0)
LOW. Old field c*10 years), shrub land, young second growth forest. (5)   HIGH. Urban, industrial, open pasture, park, conservation tiliage, new fallow field. (3)   HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)   Metric 3. Hydrology.    Metric 3. Hydrology.   Metric 3. Hydrology.   All high pH groundwater (5)			2b. Intensity of surroun	ding land use. Select one or de	ouble check and average	9.
Moderate High, Residential, fenced pasture, park, conservation filiage, new fallow field. (3)  High Urban, industrial, open pasture, row cropping, mining, construction. (1)  Metric 3. Hydrology.  Metric 3. Hydrology.  Sa. Sources of Water. Score all that apply.  I high pH groundwater (3)  Perecipitation (1)  Seasonal/Intermittent surface water (3)  Perecipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (ake or stream) (5)  3c. Meximum water depth. Select only one and assign score.  Port (7 / 27 / 36) (2)  Or (27 / 36) (2)  Or (27 / 36) (2)  Or (27 / 36) (2)  Moderated Paparent (12)  Recovered (7)  Recovered (7)  Recovered (7)  Recovered (7)  Recovered (7)  Recovered (8)  Recovering (3)  Recent or no recovery (1)  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (8)  Recovering (2)  Recovering (2)  Recovering (3)  Recovering (2)  Recovering (3)  Recovering (2)  Recovered (7)  Recovered (7)  Recovered (7)  Recovered (8)  Recovering (9)  Recovered (9)  Recover			VERY LOW.	2nd growth or older forest, prain	rie, savannah, wildlife are	ea, etc. (7)
Metric 3. Hydrology.  Metric 4. Habitat Alteration and Development.  Meximum water depth. Select only one and assign score.  Recovering (3)  Recovering (4)  Recovering (5)  Recovering (6)  Recovering (7)  Recovering (8)  Recovering (8)  Recovering (8)  Recovering (8)  Recovering (8)  Recovering			MODERATE!	Y HIGH. Residential, fenced o	asture, park, conservatio	on tillage, new fallow field. (3)
Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3) Percepitation (1) Seasonal/Intermittent surface water (3) Percepitation (1) Seasonal/Intermittent surface water (3) Percepitation (1) Seasonal/Intermittent surface water (3) Percepitation (2) Percepitation (3) Percepitation (4) Percepitation (5) Active Percepitation (5)  Journal of present or present (alke or stream) (5) Journal of present or pland corridor (1) Seasonally intundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated/saturated (4) Regularly inundated/saturated (4) Regularly inundated/saturated (3) Seasonally saturated in upper 30cm (12in) (1)  Seasonally saturated in upper 30cm (12in) (1)  Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (2) Recovering (2) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recoveri			HIGH. Urban	, industrial, open pasture, row o	ropping, mining, constru	ction. (1)
Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3) Percepitation (1) Seasonal/Intermittent surface water (3) Percepitation (1) Seasonal/Intermittent surface water (3) Percepitation (1) Seasonal/Intermittent surface water (3) Percepitation (2) Percepitation (3) Percepitation (4) Percepitation (5) Active Percepitation (5)  Journal of present or present (alke or stream) (5) Journal of present or pland corridor (1) Seasonally intundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated/saturated (4) Regularly inundated/saturated (4) Regularly inundated/saturated (3) Seasonally saturated in upper 30cm (12in) (1)  Seasonally saturated in upper 30cm (12in) (1)  Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (2) Recovering (2) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recoveri	0.0		Metric 3. Hve	drology.		
High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perenial 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) >0.4 to 0.7m (15.7 to 27.6in) (2) >0.4 to 0.7m (15.7 to 27.6in) (2) >0.4 to 0.7m (15.7 to 27.6in) (2)	4	7		3,		
High pH groundwater (3) 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.    Seasonal/Intermittent surface water (3)   Perennial surface water (lake or stream) (5)   O.4 to 0.7m (15.7 to 27.6in) (2)   O.4 to 0.7m (15.7 to 27.6in) (2)   O.4 m (c15.7in) (1)   Seasonally inundated/saturated (3)   Seasonally inundated/saturated (3)   Seasonally saturated in upper 30cm (12in) (1)   Recovered (7)   Recovered (7)   Recovering (3)   Recovered (4)   Recovered (5)   Recovered (6)   Recovered (	max 30 pts.	subtotal	3a. Sources of Water.	Score all that apply.	3b. Conne	
Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (3) Duration inundation/saturation. Score one or doll check and average.			High pH groun	ndwater (5)	1,000	
Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)  3d. Duration inundation/saturation. Score one or dol othe Semi- to permanently inundated/saturated (4) Po.7 (27.6 in) (3)  0.4 to 0.7 m (15.7 to 27.6 in) (2)  40.4 to 0.7 m (15.7 in) (1)  Seasonally inundated/saturated (3) Seasonally saturated in upper 30cm (12 in) (1)  Recovered (7) Recovered (7) Recovering (3) Recent or no recovery (1)  White items is to the surface water input in the surface of the surface input in the surface in the surface input in the surface in					-	
Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score.    April			Seasonal/Inte	rmittent surface water (3)		Part of riparian or upland corridor (1)
Solution			Perennial surf	ace water (lake or stream) (5)		
O.4 to 0.7m (15.7h) (1)   Seasonally Inundated (2)   Seasonally saturated in upper 30cm (12ln) (1)					score.	
Seasonally saturated in upper 30cm (12in) (1)  3e. Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)  Wetric 4. Habitat Alteration and Development.  Wetra 4. Habitat Alteration and Development.  Wetra 4. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovering (2) Recovered (3) Recovering (3) Recovering (2) Recovering (2) Recovering (3) Recovering (2) Recovering (3) Recovering (4) Recovering (5) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recovering (9) Recovering (9) Recovering (1) Recovering (1) Recovering (1) Recovering (2) Recovering (3) Recovering (3) Recovering (4) Recovering (5) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (8) Recovering (9) Recovering (9) Recovering (9) Recovering (1) Recovering (1) Recovering (1) Recovering (1) Recovering (2) Recovering (3) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (8) Recovering (8) Recovering (8) Recovering (8) Recovering (9) Recovering (9) Recovering (9) Recovering (1) Rec					7	
None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)    Wetric 4. Habitat Alteration and Development.    Wetric 5.			<0.4m (<15.7i	n) (1)		Seasonally saturated in upper 30cm (12in) (1)
Recovering (3) Recent or no recovery (1)    Recovering (3)			3e. Modifications to nat			average.
Recovering (3) Recent or no recovery (1)    Wetric 4. Habitat Alteration and Development.   Substrate disturbance. Score one or double check and average.   None or none apparent (4)   Recovering (2)   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)   Recovered (6)   R					bances observed	point source (popularywater)
Metric 4. Habitat Alteration and Development.    Metric 4. Habitat Alteration and Development.						
Metric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) 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) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (8) Recovering (9) R			Recent or no r			
Metric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat atteration. Score one or double check and average.  None or none apparent (9) Recovering (3) Recent or no recovery (1)  Substrate disturbance.  An average.  Shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment						
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Aa. 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) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  subtotal this page  Aa. Substrate disturbance. Score one or double check and average.  Check all disturbances observed  mowing grazing clearcutting selective cutting selective cutting selective cutting selective cutting selective cutting in dredging farming nutrient enrichment	104	11	Metric 4. Hal	bitat Alteration a	nd Developm	ent.
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Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Check all disturbances observed mowing grazing grazing clearcutting sedimentation sedimentation dredging farming nutrient enrichment						
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Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  subtotal this page  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 mowing grazing clearcutting selective cutting woody debris removal toxic pollutants  subtotal this page			Recent or no r	ecovery (1)	*	
Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Subtotal this page  Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  Check all disturbances observed mowing grazing grazing clearcutting selective cutting woody debris removal toxic pollutants  Intrinent enrichment				<ol> <li>Select only one and assign s</li> </ol>	core.	
Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  subtotal this page  Check all disturbances observed mowing grazing grazing clearcutting selective cutting woody debris removal toxic pollutants  nutrient enrichment						
Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Subtotal this page  Fair (3) Poor to fair (2) Poor (1)  Check all disturbances observed  mowing grazing G			Good (5)	- 57.39		
Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Subtotal this page  Route of the fair (2) Poor (1)  Check all disturbances observed  Mowing Grazing Grazi				od (4)		
Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Subtotal this page  Recovering (3) Recent or no recovery (1)  Recovering (3) Recovering (3) Recent or no recovery (1)  Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (7) Recovering (8) Recovering (9) Recovering (1) Recoveri						
None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Subtotal this page    None or none apparent (9) Recovered (6) Recovering (3) Recovering (4) Recovering (						î
Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Subtotal this page  Recovered (6) Recovered (				core one or double check and a	verage.	
Recovering (3) Recent or no recovery (1) Recent or no recovery (1)  Subtotal this page  Recovering (3) Recent or no recovery (1)  Glearcutting Selective cutting Woody debris removal toxic pollutants  Herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment						- No. (Constitute annual of
Recent or no recovery (1)  Clearcutting selective cutting woody debris removal toxic pollutants  subtotal this page  Sedimentation dredging farming nutrient enrichment						
selective cutting woody debris removal toxic pollutants authoritement		-	Recent or no re			
subtotal this page toxic pollutants nutrient enrichment			Lis_Incoont of no n	selective of	utting	dredging .
subtotal this page		. //				farming
	er	ibtotal this pa	ge .	Lltoxic pollul	ants	idulent enticiment
CONTROL OF THE PROPERTY AND A STATE OF THE PROPERTY AND A				,		

Site:	WIM-109	Rater(s):	JAF	Date: 10-5-18
st	btotal first page	40000		H
6	Metric 5. Speci	al Wetlands.	NA	
max 10 pts.	Lake Erie coastal/tr Lake Plain Sand Pr Relict Wet Prairies Known occurrence Significant migrator	10) tland (5) ibutary wetland-unrestricted ibutary wetland-restricted hy airies (Oak Openings) (10)	ydrology (5) endangered species (10) it or usage (10)	
-4			nterspersion,	microtopography.
nax 20 pts.	subtotal 6a. Wetland Vegetation Comm		on Community Cover S	
	Score all present using 0 to 3			es <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent Shrub	1	Present and either vegetation and is significant part bu	comprises small part of wetland's of moderate quality, or comprises a It is of low quality
	Forest Mudflats Open water	2	Present and either vegetation and is part and is of high	comprises significant part of wetland's of moderate quality or comprises a small quality
	Other Other 6b. horizontal (plan view) Inter	spersion.		ses significant part, or more, of wetland's
	Select only one.	7 17 17	Chicago Inches	
	High (5)		Description of Vegetat	
	Moderately high(4) Moderate (3)	low	disturbance tolera	nd/or predominance of nonnative or nt native species
	Moderately low (2) Low (1)	mod	although nonnative	nant component of the vegetation, e and/or disturbance tolerant native spp
	None (0) 6c. Coverage of invasive plants to Table 1 ORAM long form for	s. Refer list. Add	can also be preser moderately high, b threatened or enda	nt, and species diversity moderate to out generally w/o presence of rare angered spp
	or deduct points for coverage  Extensive >75% cove  Moderate 25-75% cover  Sparse 5-25% cover	ver (-3) (-1)	A predominance of r and/or disturbance absent, and high s	native species, with nonnative spp tolerant native spp absent or virtually pp diversity and often, but not always, re, threatened, or endangered spp
	Nearly absent <5% co			-Value - Control
	Absent (1) 6d. Microtopography.		Absent co the (0.24	
	Score all present using 0 to 3 so	ale. 0	Absent <0.1ha (0.24 Low 0.1 to <1ha (0.2-	
	& Vegetated hummucks		Moderate 1 to <4ha	
	o Coarse woody debris		High 4ha (9.88 acres	
	<ul> <li>Standing dead &gt;25cm</li> <li>Amphibian breeding p</li> </ul>	(10in) dbh	graphy Cover Scale	
	and the second s	0	Absent	The second second
		1_	Present very small an of marginal quality	nounts or if more common
		2	Present in moderate a quality or in small a	amounts, but not of highest mounts of highest quality
		3	Present in moderate of and of highest quali	

End of Quantitative Rating. Complete Categorization Worksheets.

WIM\_109

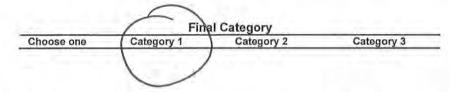
## **ORAM Summary Worksheet**

		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 (S	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	3	
	Metric 3. Hydrology	4	
	Metric 4. Habitat	Ч	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	-4	
	TOTAL SCORE	7	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	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		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 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	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: 11-19-2018
Affiliation:
MANNIK SMITH GROUP Address:
1800 INDIAN WOOD CIRCLE, MAUMEE, OH Phone Number:
$(419) 891-2222 \times 2013$
e-mail address: JEREELAND 2 MANNIKSMITH GROUP. CON
Name of Wetland: $WIM = III$
Vegetation Communit(ies): PFO PEM PSS
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 - 82.7771 41.0946
USGS Quad Name
County
CENTERTON T2N, R24N
Section and Subsection
Hydrologic Unit Code 04/000 /20405
Site Visit
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey
Delineation report/man
ATTACHED

Name of Wetland:	111		
Wetland Size (acres, hectares):	0.45		
Sketch: Include north arrow, relationship	with other surface waters, veg	etation zones, etc.	
SEE ATTACHED	WETWAND	DELINEA	T10N
MAP FIGURE			
Comments, Narrative Discussion, Justific	ation of Category Changes:		
Final score: 65		Category:	2-3 GRAY ZUNE

#### **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.	YE S	
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.	Y€5	

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 plping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES  Wetland is a Category 3 wetland  Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland  Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
Z	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canoples; 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	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	Go to Question 9a
		Category 3 status.	
		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	YES Go to Question 9b	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	YES	NO NO
90	prevent erosion and the loss of aquatic plants, i.e. the wetland is	Wetland should be	Go to Question 9c
	partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	evaluated for possible	Go to Question sc
	landward diffes of other hydrological commercial	Category 3 status	
		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	Go to Question 9d	Go to Question 10
	l "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.		
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category	Go to Question 9e
	That to oposite the same of th	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	
	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	Go to Question 10 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	Wetland is a Category 3 wetland.	Go to Question 11
	several inches of the surface, and often with a dominance of the	0.1.0	
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	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	YES	(NO)
77	dominated by some or all of the species in Table 1. Extensive prairies		Complete
	were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion	Wetland should be evaluated for possible	Quantitative
	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 vvert 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 Ramunculus 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 stricta Carex atherodes Carex buxbaumi Carex pellita Carex sartwellii 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:	WIM	_ (II =	Rate	er(s): 57, C	LW	Date: 10/8/18
max 6 pts.	subtotal	25 to <50 ac 10 to <25 ac 3 to <10 acr 0.3 to <3 acr 0.1 to <0.3 a		5 pts) ts) ots)		,5)
0	0			and surrour	iding land	use.
max 14 pts.	. subtotal	WIDE. Buffe MEDIUM. B NARROW. VERY NARF 2b. Intensity of surrou VERY LOW. LOW. Old fi	ers average 50m (164fi uffers average 25m to Buffers average 10m to ROW. Buffers average nding land use. Select 2nd growth or older fi eld (>10 years), shrub LY HIGH. Residential	nly one and assign score  or more around wetlant  50m (82 to <164ft) aro  <25m (32ft to <82ft) ar  <10m (<32ft) around we  tone or double check ar  orest, prairie, savannah, land, young second grow  , fenced pasture, park, c	d perimeter (7) und wetland perimeter cound wetland perimeter telland perimeter (0) and average. wildlife area, etc. (7) with forest. (5) onservation tillage, r	er (4) eter (1)
-0	0.0	Metric 3. Hy		ture, row cropping, minir	g, construction. (1)	
max 30 pts.	subtotal	3a. Sources of Water.  High pH ground Precipitation Seasonal/Int Perennial su 3c. Maximum water of 20.7 (27.6in) 0.4 to 0.7m < 0.4m (<15.	Score all that apply. Indwater (5) Idwater (3) (1) Idwater (3) ermittent surface water face water (lake or streach. Select only one action (3) 15.7 to 27.6in) (2) Fin) (1)	r (3) ream) (5) and assign score.	Between Part of we Part of rip 3d. Duration inunda Semi- to ; Regularly Seasonal Seasonal	core all that apply. floodplain (1) stream/lake and other human use (1) etland/upland (e.g. forest), complex (1 oarian or upland corridor (1) ution/saturation. Score one or dbl chec permanently inundated/saturated (4) inundated/saturated (3) lly inundated (2) lly saturated in upper 30cm (12in) (1)
		None or non Recovered ( Recovering	e apparent (12) Chec	e. Score one or double k all disturbances obser ditch title dike weir stormwater input	ved	
1-7	111	Metric 4. Ha	abitat Altera	tion and Deve		
max 20 pts	subtotal	4a. Substrate disturba None or non Recovered ( Recovering	nce. Score one or dougle apparent (4) 3) (2) 0 recovery (1) ent. Select only one and good (4) 2)	uble check and average. nd assign score.		
	subtotal this pa	None or nor Recovered ( Recovering Recent or no	e apparent (9) Chec 6)	k all disturbances obser mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sap herbaceo sediment dredging farming	

Site: W	M - W Rate	er(s):	F CLW	Date: \o/8
L	16		C .	70
subtotal	First sees			
subtotal	first page	17.00		
VA 4	Metric 5. Special Wetla	nds.		
7.9.1				
x 10 pts. sub	Check all that apply and score as indicated.			
	Bog (10) Fen (10)			
	Old growth forest (10)			
	Mature forested wetland (5)			
	Lake Erle coastal/tributary wetland	d-unrestricted h	ydrology (10)	
	Lake Erie coastal/tributary wetland		ology (5)	
	Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10)	enings) (10)		
	Known occurrence state/federal th	restaned or one	dangered energies (40)	
	Significant migratory songbird/water	er fowl habitat o	or usage (10)	
	Category 1 Wetland. See Questio	n 1 Qualitative	Rating (-10)	
n re	Metric 6. Plant commun			rotonography
7 6	2	maco, m	terspersion, mic	otopograpny.
20 pts, sub	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
	Score all present using 0 to 3 scale.	0		a (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either compris	es small part of wetland's
	2 Emergent			erate quality, or comprises a
	Shrub Forest		significant part but is of lo	
	n Mudflats	2	Present and either compris	es significant part of wetland's erate quality or comprises a smal
	open water		part and is of high quality	erate quality or comprises a small
	Other	3	Present and comprises sign	nificant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high	
	Select only one.			5270
	High (5)  Moderately high(4)	low	Description of Vegetation Qua	ality
	Moderate (3)	low	Low spp diversity and/or pre disturbance tolerant native	
	Moderately low (2)	mod	Native spp are dominant co	
	Low (1)		although nonnative and/or	disturbance tolerant native spp
	None (0)		can also be present, and	species diversity moderate to
	<ol> <li>Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add</li> </ol>		moderately high, but gene	
	or deduct points for coverage	high	A predominance of native s	
	Extensive >75% cover (-5)	, ugi.		it native spp absent or virtually
	Moderate 25-75% cover (-3)			rsity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threa	atened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)			
	6d. Microtopography.	0	Open Water Class Quality Absent <0.1ha (0.247 acres	V
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.	
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to	
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or mo	re
	Standing dead >25cm (10in) dbh	000		
	Amphibian breeding pools		raphy Cover Scale	
		0	Present very small amounts	or if more common
	0		of marginal quality	or a more common
	2	2	Present in moderate amount	s, but not of highest
			quality or in small amounts	of highest quality
7		3	Present in moderate or great	ter amounts
			and of highest quality	

5

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	7	
rtaing	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	20	
	Metric 4. Habitat	17	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	19	
	TOTAL SCORE	65	Category based on score breakpoints Z-3 GRAY ZONE

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

# 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 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES  Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES  Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES  Wetland is assigned to the appropriate category based on the scoring range	(NO)	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	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 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.

	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

End of Ohio Rapid Assessment Method for Wetlands.

WIM-112 (68) CATEGORY 3

# **Background Information**

Name: JOHN FREEVAND
$\frac{11-19-2018}{Affiliation:}$
MANNIK & SMITH GROUP
l Addrose:
1800 INDIAN WOOD CIRCLE, MANMEE, OH 43537 Phone Number:
(419) 891-2222 x 2013
e-mail address: JEREELAND @ MANNIKSMITHGROUP, COM
Name of Wetland:
Vegetation Communit(ies):  PRIMARILY PFO
HGM Class(es):
DEPRESSIONAL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LUCATION MAP FIGURE 4,
Lat/Long or UTM Coordinate
USGS Quad Name -82. 776 42, 41. 09536
USGS Quad Name
County
TOWNSHIP CENTERTON T2N, R24W
Section and Subsection
Hydrologic Unit Code 041000120405
Site Visit 10-8-2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
SOIL SURSEY OF HURON COUNTY, OH
Delineation report/map  ATTACHED
$\mu$ 19 $\mu$ 10 $\mu$ 1

Name of Wetland:	
(N)1M-112	
Wetland Size (acres, hectares): 0.579 ACRE  Sketch: Include north arrow, relationship with other surface waters, vegeta	All and the second second
Sketch: Include north arrow, relationship with other surface waters, vegets  SEE ATTACHED WETLAND D  MAP FIGURE 4,	ELINEATION
Comments, Narrative Discussion, Justification of Category Changes:	
Final score: 68	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).	YES  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 contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES  Wetland is a Category 3 wetland.  Go to Question 3	(NO)' Go to Question 3
	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
a	"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 )
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	
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	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 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 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	YES	NO
au	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?	Martin de la	Go to Question 10
		Wetland should be evaluated for possible	Go to Question to
		Category 3 status	
		Go to Question 10	(1)
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	Go to Question 11	
	Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		2
11	Relict Wet Prairies Is the wetland a relict wet prairie community	YES	(NO )
	dominated by some or all of the species in Table 1. Extensive prairies	and the otto	Commists
	were formerly located in the Darby Plains (Madison and Union	Wetland should be evaluated for possible	Complete 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 Rating	

Table 1. Characteristic plan	t 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 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 riddellii

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

Site: W/M	-112	Rater(s):	SF	Date: 0/8//8
22	Metric 1. Wetland A	rea (size).	181	
max 6 pts. subtotal	Select one size class and assign sco >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) (0.12ha) (1 pt)		
70	Metric 2. Upland bu	ffers and surrou	ınding land us	e.
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Re	m (164ft) or more around wetl 25m to <50m (82 to <164ft) a e 10m to <25m (32ft to <82ft) average <10m (<32ft) around	and perimeter (7) round wetland perimeter (4 around wetland perimeter wetland perimeter (0) and average. h, wildlife area, etc. (7) rowth forest. (5) , conservation tillage, new	(1)
70 20	Metric 3. Hydrology	<i>i</i> .		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrological depths are consistent with the consistency of the cons	ice water (3) ke or stream) (5) nly one and assign score. ) (2) ic <u>regime. Score one or doubl</u>	Part of wetlan Part of riparia 3d. Duration inundation/ Semi- to perm Regularly inul Seasonally in Seasonally sale check and average.	Iplain (1) am/lake and other human use (1) d/upland (e.g. forest), complex (1) n or upland corridor (1) saturation. Score one or dbl check nanently inundated/saturated (4) ndated/saturated (3)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	2) Check all disturbances obs ditch tile dike weir stormwater input	point source ( filling/grading road bed/RR dredging other	nonstormwater) track
20 40	Metric 4. Habitat Al			
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)	ne or double check and averag		
	4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or			
subtotal this p	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)		shrub/sapling herbaceous/a sedimentation dredging	quatic bed removal

last revised 1 February 2001 jjm

Site: \	J114-112	Rater(s):	W, JF Date: 0/8/19
subto	4g otel first page		19/0/16
AN	Metric 5. Special We	etlands.	
max 10 pts.	Check all that apply and score as indice  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland Erie coastal/tributary wetland Sand Prairies (Oa Relict Wet Prairies (10) Known occurrence state/fede Significant migratory songbine Category 1 Wetland. See Que	etland-unrestricted hydral etland-restricted hydral ak Openings) (10) eral threatened or end d/water fowl habitat o	dangered species (10)
1916			terspersion, microtopography.
nax 20 pts, s	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
	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)	Narrativa F	Department of Variation Contra
	Moderately high(4)  Moderate (3)	low	Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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.	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 ( Standing dead >25cm (10in) of	bh	High 4ha (9.88 acres) or more
	Amphibian breeding pools		raphy Cover Scale
	The state of the s	0	Absent
1		1	Present very small amounts or if more common of marginal quality
1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
001		3	Present in moderate or greater amounts

End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
-	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2_	
	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	20	
	Metric 4. Habitat	20	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	19	
	TOTAL SCORE	68	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 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 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.

Final Category					
Choose one	Category 1	Category 2	Category 3		

End of Ohio Rapid Assessment Method for Wetlands.



# CATEGORY 2-3 GRAY ZONE

# **Background Information**

Name: JOHN FREELAND
Date: 11-19-2018
Affiliation: MANNIK & SMITH GROUP
Address: 1800 INDIAN WOOD CIRCLE, MAUMEE, 0H 43537
Phone Number: (419) 891 - 2222 × 2013
e-mail address:  JFREE(AND WANNIKSMITHGROUP. COM
Name of Wetland: $\omega_{IM} = 113$
Vegetation Communit(ies): PFU/PSS/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 - 82.77667, 41. 09825
USGS Quad Name
COOC Qual Name
County
TOWNSHIP TZN RZYW
Section and Subsection
Hydrologic Unit Code 04/000/20405
Site Visit 10 - 8 - 18
10-0 10
National Wetland Inventory Map
National Wetland Inventory Map  Ohio Wetland Inventory Map
National Wetland Inventory Map

Name of Wetland: WIM ~ 113	1	
Wetland Size (acres, hectares): 1.00	6	
Sketch: Include north arrow, relationship with o	other surface waters, vegetation zon	
SEE ATTACHED WETU	KND DELINEAI	ON MAP,
FIGURE 4.		
Comments, Narrative Discussion, Justification of	f Category Changes:	
Final score: 62		Category: 2-3 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).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES  Wetland is a Category 3 wetland.  Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland  Go to Question 6	Go to Question 6
3	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
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES  Wetland is a Category 3 wetland.  Go to Question 8b	Go to Question 8b

			$\sim$
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
		Category o diatas.	
		Go to Question 9a	(N)
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	(NO)
	lelevation 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	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 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	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	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
	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	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	L

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 Vaccintum 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 bluxbaumi Carex sartwelli Gentiana andrewsi Helianthus grosseserratu. Liatris spicata Lysimachia quadriflora Lythrum alatun Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddelli

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

Site: WI	1-113	Rater(s): JF, CL	Date: 0-9	8-18
max 6 pts. subtot	Metric 1. Wetland  Select one size class and assign s	core.	$(C_2)$	
	25 to <50 acres (10.1 to 10 to <25 acres (4 to <1 3 to <10 acres (1.2 to <-1 0.3 to <3 acres (0.12 to <-1 0.1 to <0.3 acres (0.04 to <-1 <0.1 acres (0.04ha) (0 p	<20.2ha) (5 pts) 0.1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts) o <0.12ha) (1 pt) ts)	95)	
7 9	Metric 2. Upland b	ouffers and surroun	ding land use.	
max 14 pts. subtot	WIDE. Buffers average MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land to VERY LOW. 2nd growt LOW. Old field (>10 ye MODERATELY HIGH.	n. Select only one and assign score. 50m (164ft) or more around wetland age 25m to <50m (82 to <164ft) arourage 10m to <25m (32ft to <82ft) arours average <10m (<32ft) around wet use. Select one or double check and nor older forest, prairie, savannah, vars), shrub land, young second grow Residential, fenced pasture, park, co, open pasture, row cropping, mining	perimeter (7)  nd wetland perimeter (4)  und wetland perimeter (1)  land perimeter (0)  d average.  vildlife area, etc. (7)  th forest. (5)  nservation tillage, new fallow field. (3)	
20 21	Metric 3. Hydrolog		e e journal of the	
max 30 pts. subtot	High pH groundwater (5 Other groundwater (3) Precipitation (1) Seasonal/Intermittent st Perennial surface water 3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (4) <0.4m (<15.7in) (1)	urface water (3) (lake or stream) (5) 3 t only one and assign score.	b. Connectivity. 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  d. Duration inundation/saturation. Score one Semi- to permanently inundated/sat Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm	complex (1) ) or dbl check urated (4)
	None or none apparent Recovered (7) Recovering (3) Recent or no recovery (	(12) Check all disturbances observed ditch tile		
16 HU	Metric 4. Habitat	Alteration and Deve	lopment.	
max 20 pts. subtot	4a. Substrate disturbance. Score None or none apparent Recovered (3) Recovering (2) Recent or no recovery (			
	4b. Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	only one and assign score.		
	4c. Habitat alteration. Score one	Total Control of the	-4	1
subtotal th	And the Contract of the Contra	mowing grazing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	
last revised 1 Feb	ruary 2001 jjm			

Site: W	M-113	Rater(s):	77	FICLW	Date: 10-8
91 subtotal	first page  Metric 5. Special	Wetlands			
NAY	4 Metric 5. Special	wettanus.			
max 10 pts. sub	Check all that apply and score a Bog (10) Fen (10) Old growth forest (10) Mature forested wetlar Lake Erie coastal/tribu Lake Plain Sand Prairi Relict Wet Prairies (10) Known occurrence sta Significant migratory s Category 1 Wetland, S	nd (5) tary wetland-unrestric tary wetland-restricte es (Oak Openings) (1 ) te/federal threatened ongbird/water fowl ha See Question 1 Qualit	d hydrol 10) or enda bitat or tative Ra	logy (5) ingered species (10) usage (10) ating (-10)	
176			, inte	erspersion, micro	opography.
max 20 pts. subt	ou. Wedand Vegetation Commit			Community Cover Scale	
	Score all present using 0 to 3 sca		0	Absent or comprises <0.1ha (0.	
	Aquatic bed Emergent 2. Shrub		1	Present and either comprises s vegetation and is of moderate significant part but is of low qu	quality, or comprises a
	Forest  Mudflats  Open water		2	Present and either comprises so vegetation and is of moderate part and is of high quality	
	Other6b. horizontal (plan view) Intersp	ersion.	3	Present and comprises signification and is of high quality	nt part, or more, of wetland's
	Select only one.	Jan. 1	MR CO	Carlo Billa School Carlo	
	High (5)  Moderately high(4)  Moderate (3)		low	scription of Vegetation Quality Low spp diversity and/or predon disturbance tolerant native sp	ninance of nonnative or
	Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. to Table 1 ORAM long form for lis	Refer	nod	Native spp are dominant compo- although nonnative and/or dis- can also be present, and spec moderately high, but generally	nent of the vegetation, turbance tolerant native spp cles diversity moderate to w/o presence of rare
	or deduct points for coverage  Extensive >75% cover  Moderate 25-75% cover  Sparse 5-25% cover (-1	(-5) r (-3)	nigh	threatened or endangered spp A predominance of native speci- and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten	es, with nonnative spp tive spp absent or virtually and often, but not always,
	Nearly absent <5% cov Absent (1)		lat and	Open Water Class Quality	
	6d. Microtopography.		0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 sca		1	Low 0.1 to <1ha (0.247 to 2.47 a	
	Vegetated hummucks/ti		2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)
	Coarse woody debris > Standing dead >25cm (	10in) dbh	3	High 4ha (9.88 acres) or more	
	Amphibian breeding po	7.9		aphy Cover Scale	
			0	Absent	
			1	Present very small amounts or if of marginal quality	
			2	Present in moderate amounts, b quality or in small amounts of h	nighest quality
C. Audi			3	Present in moderate or greater a	mounts

62

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	
rating	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	20	
	Metric 4. Habitat	15	
	Metric 5. Special Wetland Communities	(n)	
	Metric 6. Plant communities, interspersion, microtopography	17	
	TOTAL SCORE	62	Category based on score breakpoints 2-3

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

# Wetland Categorization Worksheet

Choices	Circle one	R. 29	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 <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	20	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No, 5	YES  Wetland is categorized as a Category 1 wetland	(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 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 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.

Choose one	Category 1	Category 2	Category 3
1			

End of Ohio Rapid Assessment Method for Wetlands.



# CATEGORY 2

# **Background Information**

Name: JOHN FREELAND
Date: 11-19-2018
Affiliation:
Address:
1800 INDIAN WOOD CIRCLE, MANMEE, 014 43537 Phone Number:
(419) 891-2222 X 2013
e-mail address: JFREELAND & MANNIK SMITH GROUP, COM
Name of Wetland: WM ~ 1( 4
Vegetation Communit(ies):  PRIMARILY PFO WITH MINOR PSS/PEM
I HGNI 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 - 82, 77 446 - 41.09662
USGS Quad Name
County
TOWNSHIP CENTERTON TZN, RZ4W
Section and Subsection
Hydrologic Unit Code 041000120405
Site Visit 1018118
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SUL SURVEY OF HURUN COUNTY, OH
Delineation report/map  ATTACHED

Name of Wetland: WIM-IIY	
Wetland Size (acres, hectares): 2.42	
Sketch: Include north arrow, relationship with other surface water	rs, vegetation zones, etc.
SEE ATTACHED WETLAN MAP, FIGURE 4.	
Comments, Narrative Discussion, Justification of Category Change	
Final score :	Category:

## **Scoring Boundary Worksheet**

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	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.	TES	
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
	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 <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	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)
OD	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	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	123	
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
	Does the wetland's hydrology result from measures designed to	YES	NO
9b	prevent evidant of hydrology result in motions, 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 10	Go to Question 9c
	the state of the s	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	YES	NO
<b>3</b> 0	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
	to L. D	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 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 prairie confinding 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 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 Calamagrostis stricta Carex atherodes Carex buxbaumii Carex pellita Carex sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebintinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

Site: WIM	-114	Rater(s): JF, CL	-W	Date: 0	8
	• • • • • • • • • • • • • • • • • • •				
111	Metric 1. Wetland Ar	ea (size).			
max 6 pts. subtotal	Select one size class and assign score				
	>50 acres (>20.2ha) (6 pts)	/	45		
	25 to <50 acres (10.1 to <20. 10 to <25 acres (4 to <10.1 ha	a) (4 pts)			•
	3 to <10 acres (1.2 to <4ha) 0.3 to <3 acres (0.12 to <1.2)				<i>i</i> .
	0.1 to <0.3 acres (0.04 to <0.				
	<0.1 acres (0.04ha) (0 pts) Metric 2. Upland buf	fers and surround	ding land use.		>
14 16	Processor Spiana sar	,010 4114 0411 0411			
max 14 pts. subtotal	2a. Calculate average buffer width. Se	elect only one and assign score. (164ft) or more around wetland p	Do not double check.		
	MFDIUM. Buffers average 2	5m to <50m (82 to <164ft) aroun	d wetland perimeter (4)		
	VERY NARROW. Buffers av	10m to <25m (32ft to <82ft) arouverage <10m (<32ft) around wetla	and perimeter (0) 💎 🦿		
4	2b Intensity of surrounding land use.	Select one or double check and older forest, prairie, savannah, wi	average.		
•	I OW. Old field (>10 years).	shrub land, young second growth	n forest. (5)	ow field (3)	
	MODERATELY HIGH. Resid	dential, fenced pasture, park, cor in pasture, row cropping, mining,	construction. (1)	ow neid. (5)	
11 17	Metric 3. Hydrology.				
The substant	On Course of Wester Coord all that a	nnly 3h	. Connectivity. Score al	that annly	
max 30 pts. subtotal	3a. Sources of Water. Score all that a High pH groundwater (5)	рріу.	100 year floodpl	ain (1)	
	Other groundwater (3) Precipitation (1)	n en		/lake and other hum upland (e.g. forest),	
	Seasonal/Intermittent surface Perennial surface water (lake		Part of riparian of Duration inundation/sa	r úpland corridor (1 turation - Score one	
	3c. Maximum water depth. Select only		Semi- to permar	ently inundated/sat	
<b>*</b>	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (3)	2)	Seasonally inun		
	<ul><li>&lt;0.4m (&lt;15.7in) (1)</li><li>3e. Modifications to natural hydrologic</li></ul>	regime. Score one or double ch		ated in upper 30cm	ı (12in) (1)
	None or none apparent (12)		d	-	1
. *	Recovered (7) Recovering (3)	ditch tile	point source (no filling/grading	nstormwater)	
	Recent or no recovery (1)	dike	road bed/RR tra	ck	
		weir stormwater input	dredging other		
16 01	Metric 4. Habitat Alt	eration and Devel	opment.		n n
10/21					
max 20 pts. subtotal	4a. Substrate disturbance. Score one None or none apparent (4)	or double check and average.			
	Recovered (3)				
	Recovering (2) Recent or no recovery (1)				
	4b. Habitat development. Select only Excellent (7)	one and assign score.			
	Very good (6) Good (5)			•	
	Moderately good (4)				
	Fair (3) Poor to fair (2)		J		
	Poor (1) 4c. Habitat alteration. Score one or do	puble check and average	*	* a '	
	None or none apparent (9)	Check all disturbances observe	d	-	]
	Recovered (6) Recovering (3)	mowing grazing	shrub/sapling re	moval atic bed removal	
-	Recent or no recovery (1)	clearcutting	sedimentation		
177		selective cutting woody debris removal	dredging farming		
subtotal this	] age	toxic pollutants	nutrient enrichm	ent	
last revised 1 Febru	·		, w. ·		2

7

Site: '	WIW	1-119	Rater	(s): <b>S</b>	CIN	Date: 10 /22
s	27 subtotal first p	Page				W D
NA	21	Metr	ric 5. Special Wetlan	ıds.		•
max 10 pts.	subtotal	Check a	Il 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	estricted hydro nings) (10) atened or enda fowl habitat or 1 Qualitative R	angered species (10) usage (10) ating (-10)	
18	45		ic 6. Plant commun	ities, int	erspersion, microto	pography.
max 20 pts.	subtotal	6a. Wetl	and Vegetation Communities.		Community Cover Scale	
		Score all	present using 0 to 3 scale. Aquatic bed Emergent Shrub	1	Absent or comprises <0.1ha (0.24) Present and either comprises small vegetation and is of moderate questions and is of low quality.	all part of wetland's quality, or comprises a
		000	Forest Mudflats Open water	2	Present and either comprises sign vegetation and is of moderate quart and is of high quality	nificant part of wetland's
			Otherontal (plan view) Interspersion.	3	Present and comprises significant vegetation and is of high quality	part, or more, of wetland's
		Select on				·
			High (5) Moderately high(4) Moderate (3)	low	Low spp diversity and/or predomin disturbance tolerant native spec	nance of nonnative or
		2	Moderately low (2) Low (1)	mod	Native spp are dominant compone although nonnative and/or distur	ent of the vegetation,
			None (0) rage of invasive plants. Refer I ORAM long form for list. Add		can also be present, and specie moderately high, but generally w threatened or endangered spp	s diversity moderate to
			points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3)	high	A predominance of native species and/or disturbance tolerant nativ absent, and high spp diversity at	e spp absent or virtually nd often, but not always,
	•	\	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)	Mudflot and	the presence of rare, threatened Open Water Class Quality	, or endangered spp
		6d. Micro	topography.	0	Absent <0.1ha (0.247 acres)	-
			present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acr	res)
		3	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	
		7	Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more	
		3	Amphibian breeding pools		aphy Cover Scale	
				1	Absent 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	not of highest phest quality
				3	Present in moderate or greater am	

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-IIY

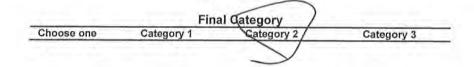
## **ORAM Summary Worksheet**

		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 (O)	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.
Quantitative Rating	Metric 1. Size	2	
raang	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	18	
	TOTAL SCORE	45	Category based on score breakpoints

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

## 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 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?	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	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 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.



## **Background Information**

Name: JOHN FREELAND	
Date: 11-19-2018	
Affiliation	
MANNIK & SMITH GROUP  Address:	
1800 INDIAN WOOD CIRCLE, MAUMEE, UHIO 435	37
Phone Number: (419) 89/-2222 X 20/3	
e-mail address: JFREELAND @ MANNIKSMITHGROUP. COM	
Name of Wetland: WIM _ 117	
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 (2.2) 20.70	
Lat/Long or UTM Coordinate -82, 7878, 41, 0949	
-82. /8/8, 41. 099/	
USGS Quad Name  County	
USGS Quad Name  County  HURON  Township  CENTERTON T2N, R24W	
-82. 1818, 41. 0941  USGS Quad Name  County  HURON	
USGS Quad Name  County  HURON  Township  CENTERTON T2N, R24W	
USGS Quad Name  County  HURON  Township  CENTERTON 72N, R24W  Section and Subsection	
USGS Quad Name  County  HURON  Township  CENTERTON 72N, R24W  Section and Subsection  Hydrologic Unit Code  041000/2050/	
USGS Quad Name  County $HURON$ Township $CENTERTON$ $T2N$ , $R2YW$ Section and Subsection  Hydrologic Unit Code $O41000/2050/$ Site Visit $10-9-20/8$	
USGS Quad Name  County  HURON  Township  CENTERTON 72N, R2YW  Section and Subsection  Hydrologic Unit Code  O41000/2050/  Site Visit  /0-9-20/8  National Wetland Inventory Map	

	WIM-/	.175		
Sketch: Include north	arrow, relationshi	p with other surface	waters, vegetation zones, etc.	5 5 5 6
FIGURE	CHED h	DETLAND	DELINEATION	MAP
omments, Narrative Di	ecuseion luetifi	eation of Category C	changes:	
		and or category o	.nangoo.	

Category: MODIFIED

OR CAT 1-2

GRAY ZONE

WIM-117

#### **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).	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	(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
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
	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
a	"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

# WIM-117

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  Go to Question 10	NO Go to Question 9c
	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 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	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 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?	Wetland should be evaluated for possible Category 3 status  Go to Question 10	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
	Natural Areas and Preserves can provide assistance in confirming this		
	type of wetland and its quality.		
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES  Wetland should be evaluated for possible Category 3 status  Complete Quantitative Rating	Complete Quantitative Rating

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 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 sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

Site: WIM	118	117		Rater(s): 5F (	CLW	Date: (8	7/9
	_	tric 1.	Wetland Ar	ea (size).		•	
max 6 pts. subtotal		>50 acr 25 to <5 10 to <2 3 to <10 0.3 to < 0.1 to < <0.1 ac	ass and assign score es (>20.2ha) (6 pts) 50 acres (10.1 to <20 25 acres (4 to <10.1h 5) acres (1.2 to <4ha) 6) acres (0.12 to <1.2 6) acres (0.04 to <0 6) res (0.04ha) (0 pts)	.2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts) .12ha) (1 pt)	(35)		
45	Met	tric 2.	Upland buf	fers and surrou	ınding land use	•	
max 14 pts. subtotal	-	WIDE. MEDIUI NARRO VERY N Itensity of su VERY L LOW. ( MODER	Buffers average 50mM. Buffers average 20M. Buffers average 14ARROW. Buffers average 14ARROW. Buffers averounding land use.  COW. 2nd growth or 150 field (>10 years), 150 kATELY HIGH. Resigner.	verage <10m (<32ft) around Select one or double check older forest, prairie, savanna shrub land, young second gr	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0) and average. h, wildlife area, etc. (7) rowth forest. (5) , conservation tillage, new fal		
11116	Met	tric 3.	Hydrology.		·		
max 30 pts. subtotal	3c. M	High pl-Other g Precipit Season Perenni aximum wa >0.7 (2: 0.4 to 0 <0.4m (lodifications	7.6in) (3) .7m (15.7 to 27.6in) ( <15.7in) (1) to natural hydrologic i	e water (3) e or stream) (5) y one and assign score. 2) regime. Score one or doubl		ain (1) /lake and other upland (e.g. fore or upland corrido turation. Score nently inundated ated/saturated (3)	est), complex (1) or (1) one or dbl check. /saturated (4) 3)
	<b>N</b>	Recove Recove		ditch tile dike weir stormwater input	point source (no filling/grading road bed/RR tra dredging other_		
12/28	Ме	tric 4.	Habitat Alt	eration and Dev	velopment.		
max 20 pts. subtotal	4b. H	None o Recove Recove Recent abitat devel Excelle Very gc Good (½ Modera Fair (3) Poor to Poor (1	r none apparent (4) red (3) ring (2) or no recovery (1) opment. Select only nt (7) od (6) 5) tely good (4) fair (2)	or double check and averag  one and assign score.	e.		
subtotal this p		None o Recove	r none apparent (9) red (6)	Check all disturbances obs mowing grazing clearcutting selective cutting woody debris remova toxic pollutants	shrub/sapling re herbaceous/aqu sedimentation dredging	atic bed remova	1

last revised 1 February 2001 jjm

Site	M - Y	\$ 117	Rater(s):	WITE	Date: 12/ a
Ť.	_	7			
	128				,
st	ubtotal first p	age			
All	28	Metric 5. Speci	al Wetlands.		
max 10 pts.	subtotal	∟ Che <u>ck all</u> that apply and scor	e as indicated.		
		Bog (10)			
		Fen (10)			
		Old growth forest ( Mature forested we			
			ributary wetland-unrestricted	hvdrology (10)	
		Lake Erie coastal/ti	ibutary wetland-restricted h	ydrology (5)	
		Lake Plain Sand Pi	airies (Oak Openings) (10)		
		Relict Wet Prairies	. ,		
		Significant migrator	state/federal threatened or e y songbird/water fowl habita	endangered species (10)	
		Category 1 Wetland	d. See Question 1 Qualitation	ve Rating (-10)	
	26	I .		nterspersion, mid	protopography
7	35	Modrio o. Tranc	communices, i	illerspersion, mil	crotopograpny.
max 20 pts.	subtotal	」 6a. Wetland Vegetation Com	munities. Vegetat	ion Community Cover Scale	
		Score all present using 0 to 3			ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either compr	ises small part of wetland's
		Emergent			derate quality, or comprises a
		Shrub Forest	2	significant part but is of	
		Mudflats			ises significant part of wetland's derate quality or comprises a small
		Open water		part and is of high quali	
		Other	3		gnificant part, or more, of wetland's
		6b. horizontal (plan view) Inte	rspersion.	vegetation and is of high	n quality
		Select only one. High (5)	Narrativ	e Description of Vegetation Q	uolitu
		Moderately high(4)	low		predominance of nonnative or
		Moderate (3)		disturbance tolerant nat	ive species
		Moderately low (2)	mod	Native spp are dominant of	component of the vegetation,
		Low (1) None (0)			or disturbance tolerant native spp
		6c. Coverage of invasive plan	ts. Refer		d species diversity moderate to nerally w/o presence of rare
		to Table 1 ORAM long form fo		threatened or endangere	
		or deduct points for coverage	high		species, with nonnative spp
		Extensive >75% cov			ant native spp absent or virtually
	•	Moderate 25-75% c Sparse 5-25% cover	• /	absent, and high spp div	versity and often, but not always,
		Nearly absent <5%		The presence of rare, thi	eatened, or endangered spp
		Absent (1)		and Open Water Class Quality	,
		6d. Microtopography.	0	Absent < 0.1ha (0.247 acr	
		Score all present using 0 to 3 s		Low 0.1 to <1ha (0.247 to	
		Coarse woody debri		Moderate 1 to <4ha (2.47 High 4ha (9.88 acres) or m	
		Standing dead >25c		[111911 411a (9.00 acres) of 11	iore
		Amphibian breeding		ography Cover Scale	
			0	Absent	
			1	Present very small amoun	ts or if more common
			2	of marginal quality  Present in moderate amou	ints, but not of highest
			·	quality or in small amour	
			, 3	Present in moderate or gre	
		•		I am all and fact that it is the second	

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

		circle	
		answer or	
		insert	Result
		score	Noodii
	To a A Outto-Illabitat	YES (NO)	If yes, Category 3.
Narrative Rating	Question 1 Critical Habitat	TES (NO)	Il yes, Category 5.
	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		
Ü	Metric 2. Buffers and surrounding land use	Ч	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	12	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	1	
	TOTAL SCORE	35	Category based on score breakpoints / -2 GRAY Zon
		· · · · · · · · · · · · · · · · · · ·	OR MODIFIED CATEGO,

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

### 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	NÖ	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 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 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES  Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, 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

CATEGORY 1-2 GRAY ZONE

OR MODIFIED CATEGORY 2

End of Ohio Rapid Assessment Method for Wetlands.



# CATEGORY 2-3 GRAY ZONE

### **Background Information**

Name: JOHN FREELAND
Date: 11-19-2018
Affiliation: MANNIK & SMITH GROUP
Address:
Phone Number: ( ) SOL DE TE TE DE SUITE OH 43537
e-mail address: $(4/9)$ $89/-2ZZZ$ $\times$ $20/3$
E-Mail address: JEREELA NO a MANNIKSMITH GROUP. COM
Name of Wetland: WIM - 119
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 52 79091 4( 09365
USGS Quad Name -82.79091, 4(.09365
County 16 0 1
Township C C T T ( T T ( ) 7 7 1) (
Township CENTERTON T2N, R24W Section and Subsection
Hydrologic Unit Code
04/0001203 U1
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SOIL SURVEY OF HURON
Delineation report/map  ATTACHED

Name of Wetland: W/M119  Wetland Size (acres, hectares): 0.3428  Sketch: Include north arrow, relationship with other sur	
Sketch: Include north arrow, relationship with other sur	face waters, vegetation zones, etc.
SEE ATTACHED WETLAND	DELINIATION MAI
FIGURE 4.	
Tranke 1.	
Name to Name to Discussion Live Miles Name of October	
omments, Narrative Discussion, Justification of Catego	ry Changes:
omments, Narrative Discussion, Justification of Catego	ry Changes:
omments, Narrative Discussion, Justification of Catego	ry Changes:
omments, Narrative Discussion, Justification of Catego	ry Changes:
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omments, Narrative Discussion, Justification of Catego	ry Changes:
comments, Narrative Discussion, Justification of Catego	ry Changes:
comments, Narrative Discussion, Justification of Catego	ry Changes:
comments, Narrative Discussion, Justification of Catego	Category: 2-3

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	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	Land Land
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES  Wetland is a Category 3 wetland  Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
3	Bogs. Is the wetland a peaf-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
la	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES  Wetland is a Category 3 wetland.  Go to Question 8b	Go to Question 8b

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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 10	NO Go to Question 9c
	the standard primary bydrological influence	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	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 10	Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
<i>3</i> e	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 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		
	type of wetland and its quality.	VEO	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

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 Lyshrum alatum Pycnanthemum virginianum Silphium terebinthaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

Site: \	NIM.	-119	Rater(s): JF, CL	-W	Date: 10 - 9- 18
	•	Metric 1. Wetland	Area (size).		
max 6 pts.	subtotal	Select one size class and assign >50 acres (>20.2ha) (6 25 to <50 acres (10.1 to 10 to <25 acres (4 to < 3 to <10 acres (1.2 to < 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04 <0.1 acres (0.04ha) (0	pts) 0 <20.2ha) (5 pts) 10.1ha) (4 pts) 4ha) (3 pts) 0 <1.2ha) (2pts) to <0.12ha) (1 pt) pts)	(61)	
q	Ç.	Metric 2. Upland	buffers and surroun	aing iand use.	
max 14 pts.	subtotal	WIDE. Buffers average MEDIUM. Buffers aver NARROW. Buffers aver VERY NARROW. Buffers  2b. Intensity of surrounding land VERY LOW. 2nd grow LOW. Old field (>10 ye MODERATELY HIGH.	th. Select only one and assign score. e 50m (164ft) or more around wetland rage 25m to <50m (82 to <164ft) around rage 25m to <50m (82 to <164ft) around rage 10m to <25m (32ft to <82ft) around wetland rage 30m (32ft) around wetland rage. Select one or double check anoth or older forest, prairie, savannah, wears), shrub land, young second growld Residential, fenced pasture, park, coal, open pasture, row cropping, mining	perimeter (7) and wetland perimeter (4) bund wetland perimeter (1) land perimeter (0) d average. vildlife area, etc. (7) th forest. (5) anservation tillage, new fall	
20	31	Metric 3. Hydrolo	gy.		
max 30 pts.	subtotal	3a. Sources of Water. Score all High pH groundwater (a) Other groundwater (3) Precipitation (1) Seasonal/Intermittent s Perennial surface wate 3c. Maximum water depth. Sele >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27  <0.4m (<15.7in) (1) 3e. Modifications to natural hydro Recovered (7)	surface water (3) r (lake or stream) (5) 3 ct only one and assign score. 6in) (2)	Part of wetland/u Part of riparian of d. Duration inundation/sa Semi- to perman Regularly inunda Seasonally inunda Seasonally satur neck and average.	ain (1) //ake and other human use (1) //ake and other human use (1) //pland (e.g. forest), complex (1) or upland corridor (1) ruration. Score one or dbl check. lently inundated/saturated (4) ated/saturated (3) dated (2) rated in upper 30cm (12in) (1)
	_	Recovering (3) Recent or no recovery	tile dike weir stormwater input	filling/grading road bed/RR trad dredging other	
11	42	Metric 4. Habitat	Alteration and Deve	lopment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Scor None or none apparent Recovered (3) Recovering (2) Recent or no recovery			
		4b. Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one	t only one and assign score.		
S	Ubtotal this p	None or none apparen Recovered (6)  V Recovering (3) Recent or no recovery	t (9) Check all disturbances observed mowing grazing	shrub/sapling re	atic bed removal

last revised 1 February 2001 jjm



ORAM v. 5.0 Field Form Quantitative Rating

Site:	WIM	1 _ 1 [ 9   Rate	er(s): J	F, CLW Date: 10-9-18
s	42 subtotal first p	age		
5	4-	Metric 5. Special Wetla	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 Ope	-restricted hydro	drology (10) ology (5)
		Known occurrence state/federal thr Significant migratory songbird/wate Category 1 Wetland. See Question	er fowl habitat or	usage (10)
14	61			erspersion, microtopography.
max 20 pts.	subtotal	J 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
		2 Emergent		vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		3 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.		, J , , , , , , , , , , , , , , , , , ,
		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)		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.	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		Triagit that (5155 dolod) of mole
		Amphibian breeding pools	Microtopogi	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-119

# 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	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 Rating	Metric 1. Size	2	
3	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	20	
	Metric 4. Habitat		
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	14	
	TOTAL SCORE		Category based on score breakpoints
		6	CATEGORY 2-3 C

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

# 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 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 categorized 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 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.

	F	inal Category	- 7
Choose one	Category 1	Category 2	Category 3
		(	
		Cons	17-15
		- KAY	CONF

End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

JOHN FREELAND	
Date: 11-16-2018	
Affiliation: MANNIK & SMITH GROUP	
Address	
1800 INDIANWOOD CIRCLE, MAUMEE,	04 4333/
(419) 89/- 2222 × 2013	
e-mail address:	
Name of Wetland: WIM_ /ZZ	
Vegetation Communit(les): PFO/PSS/PEM	
HGM Class(es):	
SEE ATTACHED LOCATION MAP, FIGURE	
Lat/Long or UTM Coordinate - 82 79967 4/ (2) 9528	
Lat/Long or UTM Coordinate — 82. 79962, 41. 09528 USGS Quad Name	
- 82, /9/62, 41.073 28 USGS Quad Name	
USGS Quad Name  County HuroN	
USGS Quad Name  County HURON  Township CENTER TON TZN, RZYW	
USGS Quad Name  County  HURON  Township  CENTER TON TZN, RZYW  Section and Subsection	
USGS Quad Name  County HURON  Township CENTER TON TZN, RZYW  Section and Subsection  Hydrologic Unit Code 04/000/12050/	
USGS Quad Name  County HURON  Township CENTER TON TZN, RZYW  Section and Subsection  Hydrologic Unit Code 04/000/12050/	
USGS Quad Name  County	
USGS Quad Name  County  Huron  Township  CENTER TON TZN, RZYW  Section and Subsection  Hydrologic Unit Code  04/000/2050/  Site Visit  10-/0-/8  National Wetland Inventory Map  Ohio Wetland Inventory Map	
USGS Quad Name  County HuRoN  Township CENTER TON TZN, RZYW  Section and Subsection  Hydrologic Unit Code 04/000/12050/  Site Visit 10-10-18  National Wetland Inventory Map	

Wetland Size (acres, hectares): 0.0577		-
Sketch: Include north arrow, relationship with other surface	on waters, vegetation zenes, etc.	11
Sketch. Include notth arrow, relationship with other surface	e waters, vegetation zones, etc.	
SEE ATTACHED WET		AND
DELINEATION MAP	FIGURE 4.	
omments, Narrative Discussion, Justification of Category	Changes:	
inal score: 40	Category:	
70	Julogory.	MOD CAT 2

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	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.	YE S	
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
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
	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

		3 A	6
Bb	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	
		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	Go to Question 10
9b	Does 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 90
		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
9d	Does 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 96
		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
		Co to Opposition 10	
	to a restriction to	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 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 1
	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	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	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	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 buxbaumii Carex pellita 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: WIA	4-122	Rater(s):	JF/CLW	Date: 10-10-18
	788 4 2 4 384 41 1		,	, <u>-</u>
0 0	Metric 1. Wetland	Area (size).		
max 6 pts. subtotal	Select one size class and assign s		(40)	
	25 to <50 acres (10.1 to	<20.2ha) (5 pts)		
	10 to <25 acres (4 to <1 3 to <10 acres (1.2 to <	4ha) (3 pts)		
	0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04	to <0.12ha) (1 pt)		
	Solution (0.04ha) (0 p) (0.04ha) (0 p) Metric 2 Unland b	•	surrounding land u	SA
1414	Wietric Z. Opiana i		sarrounaning land a	50.
max 14 pts. subtotal			assign score. Do not double check round wetland perimeter (7)	ζ.
	MEDIUM. Buffers avera	age 25m to <50m (82 to	o <164ft) around wetland perimeter ift to <82ft) around wetland perimeter	
		ers average <10m (<32	ft) around wetland perimeter (0)	
	VERY LOW. 2nd growt	h or older forest, prairie	e, savannah, wildlife area, etc. (7)	
	MODERATELY HIGH.	Residential, fenced pas	second growth forest. (5) sture, park, conservation tillage, nev	v fallow field. (3)
	Metric 3. Hydrolog		opping, mining, construction. (1)	
1// 1/2	Wietric 3. Trydrolog	9 <b>y</b> .		
max 30 pts. subtotal	3a. Sources of Water. Score all t High pH groundwater (5		3b. Connectivity. Scored	
	Other groundwater (3) Precipitation (1)	,	Between str	eam/lake and other human use (1) and/upland (e.g. forest), complex (1)
	Seasonal/Intermittent surface water		Part of ripar	ian or upland corridor (1) n/saturation. Score one or dbl check.
	3c. Maximum water depth. Selec		score. Semi- to per	manently inundated/saturated (4)
	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6	6in) (2)	Seasonally i	undated/saturated (3) nundated (2)
	<ul><li>&lt;0.4m (&lt;15.7in) (1)</li><li>3e. Modifications to natural hydro</li></ul>	logic regime. Score or		saturated in upper 30cm (12in) (1)
	None or none apparent Recovered (7)	(12) Check all disturb		(nonstormwater)
	Recovering (3)	tile	filling/gradin	g`
	Recent or no recovery (	weir	dredging	KIIACK
	] <b></b>	stormwater		
16 31	Metric 4. Habitat	Aiteration an	ia Development.	
max 20 pts. subtotal	4a. Substrate disturbance. Score None or none apparent		and average.	
	Recovered (3)	(1)		
	Recovering (2) Recent or no recovery (			, "
	4b. Habitat development. Select Excellent (7)	only one and assign so	ore.	
	Very good (6) Good (5)			
	Moderately good (4) Fair (3)			
	Poor to fair (2) Poor (1)			
	4c. Habitat alteration. Score one			
	None or none apparent Recovered (6)	mowing	shrub/saplin	
	Recovering (3) Recent or no recovery (**	grazing (1) grazing clearcutting		aquatic bed removal on
21		selective cu		
subtotal this pa	j. nge	toxic polluta		chment
last revised 1 Februa	•	<u> </u>		

Site: WIM -	122 F	Rater(s):	SF.CLW	Date: \0 / 10
subtotal first page	letric 5. Special We	etlands.		
	eck all that apply and score as indic	ated		
	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 (Oat Relict Wet Prairies (10) Known occurrence state/fedesignificant migratory songbire Category 1 Wetland. See Queen (10)	etland-unrestricte etland-restricted h lk Openings) (10) eral threatened or d/water fowl habit	lydrology (5) endangered species (10) at or usage (10)	
9 40 1	letric 6. Plant comr	nunities,	interspersion, micro	otopography.
max 20 pts. subtotal 6a.	Wetland Vegetation Communities.	Vegeta	tion Community Cover Scale	
Soc	ore all present using 0 to 3 scale.  Aquatic bed Emergent Shrub	0	Present and either comprises vegetation and is of modera	ate quality, or comprises a
	Forest	2	significant part but is of low	
\$	Mudflats Open water	2		ate quality or comprises a small
	Otherhorizontal (plan view) Interspersion	3		icant part, or more, of wetland's ality
Sele	ect only one.	N. di		
,	High (5)		/e Description of Vegetation Quali	
	Moderately high(4) Moderate (3)	lov	Low spp diversity and/or pred disturbance tolerant native s	
	Moderately low (2)	mo		
	Low (1)			disturbance tolerant native spp
	None (0)		can also be present, and sp	•
	Coverage of invasive plants. Referable 1 ORAM long form for list. Add		moderately high, but general	
	educt points for coverage	hig	threatened or endangered s  A predominance of native spe	
0	Extensive >75% cover (-5)	'"9		native spp absent or virtually
	Moderate 25-75% cover (-3)			ity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threate	ened, or endangered spp
	Nearly absent <5% cover (0) Absent (1)	BH., 441-4	and Ones Water Class Coulity	
6d	Microtopography.	0	Absent <0.1ha (0.247 acres)	
	re all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	7 acres)
	O Vegetated hummucks/tussucl	ks 2	Moderate 1 to <4ha (2.47 to 9	
	Coarse woody debris >15cm	· · · .	High 4ha (9.88 acres) or more	)
	Standing dead >25cm (10in)		nography Cover Scale	
	Amphibian breeding pools	NICTOLO 0	pography Cover Scale Absent	
		1	Present very small amounts o of marginal quality	r if more common
		2	Present in moderate amounts quality or in small amounts of	
		3	Present in moderate or greate and of highest quality	r amounts

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-122

## **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	
rading	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	16	
	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.

# 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 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.

	Fit	nal Category	
Choose one	Category 1	Category 2	Category 3
		MODIFIEN	

End of Ohio Rapid Assessment Method for Wetlands.



# **Background Information**

JOHN FREELAND  Date:  11-16-2018  Affiliation:  MANNIK & SMITH GROUP  Address:  1800 INDIAN WOOD CIRCLE, MAUMEE, OH 4	
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	553/
Phone Number: (419) 891- 2222 X 2013	
e mail address:	
JEREELAND @MANNIKSMITHGRO	41.COM
Name of Wetland: WIM - 123	
Vegetation Communit(ies): PFO, PSS, PEM	
HCM Class(os):	
RIVERINE DEPRESSIONAL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
FIGURE 4, ATTACHED REPORT	
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	
Lat/Long or UTM Coordinate 82 799 Z-6 4/. 0 9 4 8 7	
Lat/Long or UTM Coordinate 82, 799 Z6, 4/. 09487 USGS Quad Name	
USGS Quad Name	
USGS Quad Name  County  If URON	
USGS Quad Name  County	
USGS Quad Name  County  If URON	
USGS Quad Name  County	
USGS Quad Name  County If URON  Township CENTERTON T2N, RZYW  Section and Subsection  Hydrologic Unit Code 041000120501	
USGS Quad Name  County	
82,79726, 47.09487  USGS Quad Name  County  If URON	

Name of Wetland: Wetland Size (acres, h	WIM_I	23		
Wetland Size (acres, h	ectares):	,57219	a sustained to be to	
Sketch: Include north	arrow, relationsh	, 572/9 ip with other surface wate	rs, vegetation zones, etc.	^
SEE ATTA	+C1+€D 4,	WETLAND	DELINEAT	TON MAP
mments, Narrative D	scussion, Justifi	cation of Category Chang	es:	
nal score :	67		Catego	ory: 3

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	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	Circle one	75
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has	YES	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
	Threatened or Endangered Species. Is the wetland known to contain	YES	(NO)
	an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	6
	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	
П	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
	the things of the process of the process of the first of the complete party of	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
		Go to Question 7	
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES	(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
a .	"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	

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES  Wetland should be evaluated for possible Category 3 status.	(NO)
		Go to Question 9a	(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	YES 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 9d
	The state of the s	Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
12	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	( NO
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	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)
	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
Invasive/exotic spp Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	fen species  Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum	bog species  Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum viriginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Oak Opening species  Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	wet prairie species  Calamagrostis canadensis Calamogrostis stricta Carex atherodes Carex buxbaumii Carex sertwellii 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.

Site:	WI	1-,123	Rater(	s):	JAF	Date:	10-10-1
9	55 subtotal first	page					
.5	60	Metric 5. Spe	cial Wetland	ds.			
max 10 pts.	subtotal	Lake Erie coasi Lake Plain San Relict Wet Prair	est (10) d wetland (5) al/tributary wetland-un al/tributary wetland-res d Prairies (Oak Openir des (10)	stricted hyd igs) (10)	rology (5)		
		Significant migr	atory songbird/water for	wl habitat o	dangered species (10) or usage (10)		
7	67		land. See Question 1 nt communit		Rating (-10) terspersion, microt	opogra	iphy.
max 20 pts.	subtotal	6a. Wetland Vegetation C	Communities.	Vegetation	Community Cover Scale		
		Score all present using 0	to 3 scale.	0	Absent or comprises <0.1ha (0.2	471 acres)	contiguous area
		Aquatic bed  X Emergent  Shrub			Present and either comprises sm vegetation and is of moderate significant part but is of low qua	quality, or co	etland's omprises a
		Forest Mudflats Open water		2	Present and either comprises sig- vegetation and is of moderate part and is of high quality		
		Other  6b. horizontal (plan view) Select only one,	Interspersion.	3	Present and comprises significant vegetation and is of high quality		ore, of wetland's
		High (5)		Narrative I	Description of Vegetation Quality		
		Moderately high Moderate (3)	(4)	low	Low spp diversity and/or predom disturbance tolerant native spe	cies	
		Moderately low ( Low (1) None (0) 6c. Coverage of invasive part of Table 1 ORAM long form	plants, Refer	mod	Native spp are dominant compor although nonnative and/or distu- can also be present, and speci- moderately high, but generally threatened or endangered spp	urbance tole es diversity r	rant native spp moderate to
		or deduct points for covera  Extensive >75%  Moderate 25-756  Sparse 5-25% or	cover (-5) % cover (-3) over (-1)	high	A predominance of native species and/or disturbance tolerant nati absent, and high spp diversity a the presence of rare, threatene	ve spp abse and often, bu	nt or virtually it not always,
		Nearly absent < 5 Absent (1)		Mudflat an	d Open Water Class Quality		
		6d. Microtopography.	No. and I	0	Absent <0.1ha (0.247 acres)		
		Score all present using 0 to		1	Low 0.1 to <1ha (0.247 to 2.47 ac		
		Vegetated humm		2	Moderate 1 to <4ha (2.47 to 9.88	acres)	
		✓ Standing dead >		3	High 4ha (9,88 acres) or more		
		Amphibian breed	ling pools		raphy Cover Scale		
				0	Absent	and the	
					Present very small amounts or if r of marginal quality		
				2	Present in moderate amounts, bu quality or in small amounts of hi	ghest quality	est /
1 les				3	Present in moderate or greater an	nounts	

End of Quantitative Rating. Complete Categorization Worksheets.

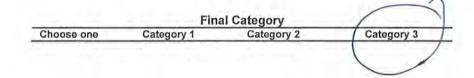
### **ORAM Summary Worksheet**

		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		
rtating	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	22	
	Metric 4. Habitat	18	
	Metric 5. Special Wetland Communities	5	
	Metric 6. Plant communities, interspersion, microtopography	7	1
	TOTAL SCORE	67	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

### Wetland Categorization Worksheet

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



End of Ohio Rapid Assessment Method for Wetlands.

W1M\_124



# CATEGORY 2-3 GRAY ZONE

### **Background Information**

Name: JOHN FREE LAND	
Date: 11-19-2018	
Affiliation:	
MANNIK & SMITH GROUP Address:	
1800 INDIAN WOOD CIRCLE, MAYMEE,	
(419) 891-ZZZZ X Z013	
e-mail address: (419) 891-ZZZZ X ZO13  FREELAND & MANNIK SMITH	1GROUP.con
Name of Wetland: WIM-124	
Vegetation Communit(ies):	
HGM Class(es):	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, FIGURE	: 4,
<b>,</b>	
Lat/Long or UTM Coordinate -82. 7 96 42, 4/. 0927/	
USGS Quad Name	
HURON	
TOWNSHIP CENTERTON, TZN, RZYW	
Section and Subsection	
Section and Subsection	
Section and Subsection  Hydrologic Unit Code  04/000/Z050/  Site Visit	
Section and Subsection  Hydrologic Unit Code  04/000/Z050/	
Section and Subsection  Hydrologic Unit Code  04/000/Z050/  Site Visit  /0-//-(8	
Section and Subsection  Hydrologic Unit Code  O 4   000   Z 0 50    Site Visit    0 - /   - / 8  National Wetland Inventory Map  Ohio Wetland Inventory Map	
Section and Subsection  Hydrologic Unit Code  O 4   000   Z 050    Site Visit  / 0 - /   - / 8  National Wetland Inventory Map  Ohio Wetland Inventory Map	

W1M-124

#### **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	A
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 Se to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Question 6
3	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
За	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland, Go to Question 8b	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 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES  Wetland should be evaluated for possible Category 3 status  Complete Quantitative Rating	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 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.

ORAM v. 5.0 Field Form Quantitative Rating

Site: APEX 1382001 WIM-1	24 Rater(s):	Date: (0 √/~/ 8
7 3 Metric 1. Wetlan	,	
10 to <25 acres (4 t 3 to <10 acres (1.2 0.3 to <3 acres (0.1 0.1 to <0.3 acres (0.4 <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)	(61)
Metric 2. Upland	d buffers and surroundin	g land use.
WIDE. Buffers average MEDIUM. Buffers at NARROW. Buffers VERY NARROW. E Intensity of surrounding late VERY LOW. 2nd g LOW. Old field (>1 MODERATELY HIGH	width. Select only one and assign score. Do in age 50m (164ft) or more around wetland pering average 25m to <50m (82 to <164ft) around wetland average 10m to <25m (32ft to <82ft) around wetland pering average 10m (<32ft) around wetland pering average <10m (<32ft) around wetland pering use. Select one or double check and average with or older forest, prairie, savannah, wildlife by years), shrub land, young second growth fore SH. Residential, fenced pasture, park, conservatrial, open pasture, row cropping, mining, constitutions.	meter (7) etland perimeter (4) wetland perimeter (1) perimeter (0) rage. e area, etc. (7) est. (5) vation tillage, new fallow field. (3)
Metric 3. Hydro	logy.	
max 30 pts. subtotal 3a. Sources of Water. Score High pH groundwater Other groundwater Precipitation (1) Seasonal/Intermitter 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)	er (5) (3)  Int surface water (3) (ater (lake or stream) (5) (belect only one and assign score.	ponnectivity. 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 appart Recovered (7)  Recovering (3)  Recent or no recove	ditch	point source (nonstormwater) filling/grading road bed/RR track dredging other_AG_DRAINAGE
Metric 4. Habita	t Alteration and Develop	ment.
None or none appar Recovered (3) Recovering (2) Recent or no recove 4b. Habitat development. Sel Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	ery (1) ect only one and assign score.	
None or none appar Recovered (6)  X Recovering (3) Recent or no recove	ent (9) Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

last revised 1 February 2001 jjm

Site:	WI	M-	124	Rate	r(s):	IF	Date: /0 -//-/
	42						
-	subtotal first		ric 5. Spe	ecial Wetla	nds.		
2	171						
max 10 pts.	subtotal	Check a	Bog (10) Fen (10) Old growth fore Mature foreste Lake Erie coas Lake Erie coas Lake Plain Sar Relict Wet Prai Known occurre Significant mig	d wetland (5) stal/tributary wetland stal/tributary wetland nd Prairies (Oak Ope iries (10) ence state/federal thr ratory songbird/wate	restricted hy enings) (10) eatened or e er fowl habitat	drology (5) ndangered species or usage (10)	(10)
		100		tland. See Question			
14	61				lities, ii	nterspersi	on, microtopography.
max 20 pts,	subtotal	6a. Weti	and Vegetation	Communities.	Vegetati	on Community Co	
		Score all	present using 0 Aquatic bed	to 3 scale.	0	Absent or cor	nprises <0.1ha (0.2471 acres) contiguous area
		1 2	Emergent Shrub		1	vegetation a	either comprises small part of wetland's and is of moderate quality, or comprises a part but is of low quality
		3_6	Forest Mudflats Open water		2	vegetation a	either comprises significant part of wetland's and is of moderate quality or comprises a small of high quality
			Other contal (plan view)	Interspersion.	3		comprises significant part, or more, of wetland's and is of high quality
		Select on	High (5)		Narrative	Description of Ve	egetation Quality
		×	Moderately high Moderate (3)	X.	low	Low spp diver	sity and/or predominance of nonnative or tolerant native species
			Moderately low Low (1) None (0) rage of invasive 1 ORAM long for	plants. Refer	mod	although not can also be moderately t	e dominant component of the vegetation, nnative and/or disturbance tolerant native spp present, and species diversity moderate to high, but generally w/o presence of rare or endangered spp
		or deduct	points for cover Extensive >75% Moderate 25-75 Sparse 5-25% of	age 6 cover (-5) 6% cover (-3) cover (-1)	high	A predominan and/or distur absent, and	ce of native species, with nonnative spp bance tolerant native spp absent or virtually high spp diversity and often, but not always, e of rare, threatened, or endangered spp
			Nearly absent < Absent (1)	5% cover (U)	Mudflata	nd Open Water Cl	ass Quality
		6d. Micro	topography.		0	Absent <0.1h	
		Score all	present using 0 t		1	The second secon	na (0.247 to 2.47 acres)
		-1	Vegetated humi		2	The second second second second second	<4ha (2.47 to 9.88 acres)
		2		lebris >15cm (6in) >25cm (10in) dbh	3	High 4ha (9.88	acres) or more
		2	Amphibian bree		Microtopo	graphy Cover Sc	ale
				W. P. S. S. S.	0	Absent	The state of the s
				Ť	1	of marginal q	
					2	quality or in s	derate amounts, but not of highest small amounts of highest quality
20.11					3	Present in mod and of highes	derate or greater amounts

End of Quantitative Rating. Complete Categorization Worksheets.

WIM\_124

# **ORAM Summary Worksheet**

		circle answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
-	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES / NO.	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES 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	14	
	Metric 3. Hydrology	14	
	Metric 4. Habitat	1	
	Metric 5. Special Wetland Communities	5	
	Metric 6. Plant communities, interspersion, microtopography	14	
	TOTAL SCORE	6(	Category based on score breakpoints 2-3 GNAY Z

 $Complete\ Wetland\ Categorization\ Worksheet.$ 

# 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	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 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 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.	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.

Andrew Comment	Fi	nal Category	
Choose one	Category 1	Category 2	Category 3
		GRAY	ZONE
		GRAY	ZON

End of Ohio Rapid Assessment Method for Wetlands.



### **Background Information**

JOHN FREELAND
Date: 11-20-2018
Affiliation: MANNIK SMITH GROUP
Address:
Phone Number: ( )
e-mail address: 891-2227 X Z013
JEREELAND @ MANNIKSMITHGROUP, COM
Name of Wetland: WIM - 126
Vegetation Communit(les):
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE
Lat/Long or LTM Coordinate
Lat/Long or UTM Coordinate -82.79244, 41.09292
Lat/Long or UTM Coordinate -82.79244, 41.09292 USGS Quad Name
-82.19299, 91.07272 USGS Quad Name
-82.79299, 91.07272 USGS Quad Name
-82. 79299, 91.07272  USGS Quad Name  County  H U RO N
USGS Quad Name  County  HURON  Township  CENTERTON TZN, R24W  Section and Subsection
USGS Quad Name  County  HURON  Township  CENTERTON TZN, R24W  Section and Subsection  Hydrologic Unit Code  041000120501
USGS Quad Name  County  HURON  Township  CENTERTON TZN, R24W  Section and Subsection  Hydrologic Unit Code  04000120501  Site Visit  10-11-18
USGS Quad Name  County  HURON  Township  CENTERTON TZN, 1224W  Section and Subsection  Hydrologic Unit Code  041000120501
USGS Quad Name  County  HURON  Township  CENTERTON TZN, R24W  Section and Subsection  Hydrologic Unit Code  04000120501  Site Visit  10-11-18
USGS Quad Name  County  HURON  Township  CENTERTON TZN, R24W  Section and Subsection  Hydrologic Unit Code  04100012050/  Site Visit  10-11-18  National Wetland Inventory Map

Name of Wetland:	
Wetland Size (acres, hectares): 0.235 ACRE	
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, e	etc.
SEE ATTACHED WETLAND DELINEAT FIGURE 4.	
Comments, Narrative Discussion, Justification of Category Changes:	
Final score : Ca	tegory: 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 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
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES  Wetland is a Category 3 wetland  Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly 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
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	(NO) Go to Question 8a
За	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

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
		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 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 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 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 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.

Site: WIM -	126	Rater(s): JF, CL	W	Date: 10 -(/r/8
	Metric 1. Wetland A	Area (size).		
max 6 pts. subtotal	Select one size class and assign scc >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 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)	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		79 AV
14 15	Metric 2. Upland bu	uffers and surroun	ding land use.	
max 14.pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	Om (164ft) or more around wetland e 25m to <50m (82 to <164ft) arou ge 10m to <25m (32ft to <82ft) arou average <10m (<32ft) around we	d perimeter (7)  Ind wetland perimeter (4)  Sund wetland perimeter (1)  Itland perimeter (0)  d average.  Wildlife area, etc. (7)  Ith forest. (5)  Sonservation tillage, new fallo	ow field. (3)
20 35	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 surface Perennial surface water (late of the control of the con	ace water (3) ake or stream) (5) nly one and assign score.	Part of wetland/u Part of riparian of d. Duration inundation/sat Semi- to permane Regularly inunda Seasonally inunda Seasonally satura	iin (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)			
19 54	Metric 4. Habitat Al	teration and Deve	lopment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3)	<b>9</b> .		
	Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or	double check and average	·	
54	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)		shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal
subtotal this pa	•			

Site:	Rat	ter(s):	Date:
6		4	
NA G	Metric 5. Special Wetl	ands.	
max 10 pts, sub	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlan	nd-unrestricted hy	vdrology (10)
12 (-	Lake Erie coastal/tributary wetlan Lake Plain Sand Prairies (Oak O Relict Wet Prairies (10) Known occurrence state/federal Significant migratory songbird/wa Category 1 Wetland. See Quest	penings) (10) threatened or end ater fowl habitat of ion 1 Qualitative	dangered species (10) or usage (10)
13 67 max 20 pts. subt			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
	O Other  6b. horizontal (plan view) Interspersion.  Select only one.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)	Narrative D	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) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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.	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	1 130 8 75	High 4ha (9.88 acres) or more
	Amphibian breeding pools		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

67

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 (6)	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.
1	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (O)	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	
vanina	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	20	
	Metric 4. Habitat	19	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	13	
	TOTAL SCORE	67	Category based on score breakpoints

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 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	<b>6</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 <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 all 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).
coes the wetland otherwise whibit moderate OR superior ydrologic OR habitat, OR ecreational functions AND he wetland was not ategorized as a Category 2 wetland (in the case of noderate functions) or a ategory 3 wetland (in the ase of superior functions) by is 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: 11-16-2018	
Affiliation: MANNIK & SMITH GROUP	
Address'	113577
Phone Number: (419) 891-2222 X 2013	93377
e-mail address:  JEREELAND & MANNIKSMITHG	ROUP. COM
Name of Wetland: NIM _ 130	
Vegetation Communit(ies): PRIMARILY PFD, SECONDARY	PEM
HGM Class(es):  DEPRESSIONAL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE FIGURE 4, ATTACHED REPORT	
Lat/Long or UTM Coordinate	
Lat/Long or UTM Coordinate - 82.82793, 41.0899/	
County	
Township	
Section and Subsection T2N R24W	
Hydrologic Unit Code 04/000/2050/	
10-12-13	
National Wetland Inventory Map	
National Wetland Inventory Map	

Name of Wetland:		
Wetland Size (acres, hectares): 1.148		
Wetland Size (acres, hectares): 1./48 Sketch: Include north arrow, relationship with other surface wa	ters, vegetation zones, etc.	
SEE ATTACHED WETLAND		
	BEETINE / TITOLO	
MAP, FIGURE 4.		
Comments, Narrative Discussion, Justification of Category Chan	ges:	
Billiones Artista (1910) il Artista in Part di Leananda (1910) este in Artista (1910)	712	1
Final score :	Category: 7	
iliai score. 77	Category:   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 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.

#	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).	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
	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	Go to Question 8a
a	"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?	Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

		7	
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES  Wetland should be evaluated for possible Category 3 status.	NO Go to Question 9a
		Go to Question 9a	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	Go to Question 10
9Ь	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
	I have been a superior to the second	Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category	NO Go to Question 9e
		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	NO Go to Question 10
	in the westland legisland 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 substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Wetland is a Category 3 wetland.  Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES  Wetland should be evaluated for possible Category 3 status  Complete Quantitative Rating	Complete Quantitative Rating

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ramunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	Zygadenus elegais 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 stricta Carex atherodes Carex buxbaumii Carex pellita Carex sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

ORAM v. 5.0 Field Form Quantitative Rating

Site: # 382	0801 WIM-130	Rater(s):	SF/CLW/	Date: 10-12-18
	1 10111			
2 2	Metric 1. Wetland	Area (size).		
max 6 pts. subtotal	Select one size class and assign so >50 acres (>20.2ha) (6 pi 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	s) :20.2ha) (5 pts) .1ha) (4 pts) na) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		77)
14 16	Metric 2. Upland b	uffers and sur	rounding land ι	ise.
max 14.pts. subtotal	NARROW. Buffers avera VERY NARROW. Buffers  2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. R	Om (164ft) or more aroun- e 25m to <50m (82 to <16 ge 10m to <25m (32ft to s average <10m (<32ft) ar e. Select one or double or older forest, prairie, sa s), shrub land, young sec esidential, fenced pasture	d wetland perimeter (7) 64ft) around wetland perimete <82ft) around wetland perime ound wetland perime ound wetland perimeter (0) check and average. vannah, wildlife area, etc. (7)	r (4) ter (1)
21 37	Metric 3. Hydrolog	у.		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1)	at apply.	<b>▶</b> Between s	ore all that apply. oodplain (1) tream/lake and other human use (1) land/upland (e.g. forest), complex (1)
	Seasonal/Intermittent surf Perennial surface water (I  3c. Maximum water depth. Select (I  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in)  <0.4m (<15.7in) (1)  3e. Modifications to natural hydrolo	ake or stream) (5) only one and assign score n) (2)	Part of ripa 3d. Duration inundati Semi- to p Regularly i Seasonally	rian or upland corridor (1) on/saturation. Score one or dbl check. ermanently inundated/saturated (4) nundated/saturated (3) r inundated (2) s saturated in upper 30cm (12in) (1)
	None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)		s observed	
		weir stormwater inpu	t dredging other	
70 57	Metric 4. Habitat A			· ·
max 20 pts. subtotal	4a. Substrate disturbance. Score o		verage.	
	Recovered (3) Recovering (2) Recent or no recovery (1)	·a,		
	4b. Habitat development. Select or Excellent (7) Very good (6) Good (5)	ly one and assign score.		
	Moderately good (4) Fair (3) Poor to fair (2) Poor (1)			
	4c. Habitat alteration. Score one or None or none apparent (9			
「 <u>ご</u> っ	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris re	shrub/sapli herbaceous sedimentat dredging	s/aquatic bed removal
subtotal this pa	•	toxic pollutants	nutrient en	ichment
last revised 1 Februa	ry ∠∪∪ i jjiii .	•		

7

ORAM v. 5.0 Field Form Quantitative Rating

Site: 43820001 WIM - 130 Rate	er(s):	Date: 10 -/ Z -/ 2
subtotal first page  Metric 5. Special Wetla	nds.	a)
0 0 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 Lake Erie coastal/tributary wetland Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal the Significant migratory songbird/wated Category 1 Wetland. See Question	-restricted hydrenings) (10) reatened or ender fowl habitation	dangered species (10) or usage (10) Rating (-10)
15 77 Wetric 6. Plant commun	lities, 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 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
Cther 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)	Magnative C	
Moderately high(4)	low	Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative or
Moderate (3)	100,7	disturbance tolerant native species
Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
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.	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)
	3	High 4ha (9.88 acres) or more
Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopog	raphy Cover Scale
- Charles Managhan	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
71	3	Present in moderate or greater amounts and of highest quality

71

End of Quantitative Rating. Complete Categorization Worksheets.

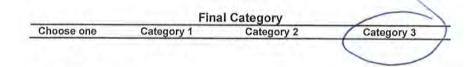
### **ORAM Summary Worksheet**

		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 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	Name of the last
	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	21	
	Metric 4. Habitat	20	
	Metric 5. Special Wetland Communities	5	
	Metric 6. Plant communities, interspersion, microtopography	15	
	TOTAL SCORE	77	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	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 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**

Name:	
Date:	_
11-16-2018	
Affiliation:	
MANNIK SMITH GROUP Address:	
1800 INDIAN WOOD CIRCLE, MAUNEE, OH 4353	Z
Phone Number:	
e-mail address: (419) 891-222 X Z013	4
JEREELAND & MANNIKSMITHGROUP, COM	1
Name of Wetland: $\omega_{IM} = 131$	
Vegetation Communit(ies):	
PFO/PSS/PEM	_
HGM Class(es):  DEPRESSIONAL / RIVERINE	
DEPRESSIONAL / RIVERINE Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
FIGURE 4, ATTACHED REPORT	
Lat/Long or UTM Coordinate 23 0/09/ - 4/ 09/09	-
Lat/Long or UTM Coordinate ~ 82.8/396 , -4/. 09489  USGS Quad Name	_
USGS Quad Name	
County	
Toynology	
Section and Subsection T2N, R24W	
Section and Subsection	_
Hydrologic Unit Code 04/000/2050/	
Site Visit	
10-15-2018	_
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey	
SOIL SURVEY OF HURON COUNTY OF	_
Delineation report/map  A TTACHEN	

Wetland Size (acres, hoctares): 2, 43  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:	Name of Wetland:  Wetland Size (acres, hectares):  Sketch: Include north arrow, relation	M-131		
SEE ATTACHED WETLAND DELINEATION/ MAP, FIGURE 4.	Sketch: Include north arrow, relation	onship with other surface waters	, vegetation zones, etc.	
omments, Narrative Discussion, Justification of Category Changes:	SEE ATTACHEL	WETLAND		✓
omments, Narrative Discussion, Justification of Category Changes:				
umments, Narrative Discussion, Justification of Category Changes:				
mments, Narrative Discussion, Justification of Category Changes:				
mments, Narrative Discussion, Justification of Category Changes:				
	mments, Narrative Discussion, J	ustification of Category Changes	:	
inal score: 37 Category: MODIFIED CAT. 2	inal score : 2 =		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.

#	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 S	
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	ACT A
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
	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
i	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
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	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	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	
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 elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
	the state of the s	Go to Question 10 YES	NO
9с	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	YES	NO
77	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	(NO)
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	Wetland is a Category 3 wetland.  Go to Question 11	Go to Question 11
	Natural Areas and Preserves can provide assistance in confirming this		1
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

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 Ranunus frangula Iypha 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 Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamagrostis stricta Carex atherodes Carex buxbaumin Carex pellita Carex sartwellit Gentiana andrewsit 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.	. /3	/ Rater(s): JF, HSF	Date: 10-15-2018
2 2	Me	tric 1. Wetland Area (size).	
max 6 pts. subtotal	-J Sele¦	ct 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)	
T T	ا م	<0.1 acres (0.04ha) (0 pts)	0
9 //	IVIE	tric 2. Upland buffers and surrounding land us	J.
max 14 pts. subtotal	ــا 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)	<b>,</b>
		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 (4	) (1)
		VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)	
	2b.	ntensity 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)	iallary field (2)
		MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new f HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	allow lielu. (3)
0.1	$\neg Me$	tric 3. Hydrology.	ė.
9 20	""	ino or rigareregy.	1
max 30 pts. subtotal	<b>-</b> 3a. ⅓	Sources of Water. Score all that apply.  3b. Connectivity. Score	
	·	High pH groundwater (5)  Other groundwater (3)  ■ 100 year flood ■ Between strea	main (1) m/lake and other human use (1)
	İ	Precipitation (1)	d/upland (e.g. forest), complex (1)
	-		n or upland corridor (1 <u>)</u> saturation.  Score one or dbl check
	3c. <u>i</u>	Maximum water depth. Select only one and assign score.  Semi- to perm	anently inundated/saturated (4)
	ļ	>0.7 (27.6in) (3) Regularly inun 0,4 to 0.7m (15.7 to 27.6in) (2) Seasonally inu	dated/saturated (3) indated (2)
	į	< 0.4m (<15.7in) (1) Seasonally sate	turated in upper 30cm (12in) (1)
	3e. i	Modifications to natural hydrologic regime. Score one or double check and average.	
		None or none apparent (12) Check all disturbances observed Recovered (7) ditch point source (r	nonstormwater)
		Recovering (3) tile filling/grading	
	L	Recent or no recovery (1)   dike   road bed/RR to dredging	ack
		stormwater input other	<u> </u>
9 54	Me	tric 4. Habitat Alteration and Development.	
1 27			•
max 20 pts. subtotal	4a. 5	Substrate disturbance. Score one or double check and average.  None or none apparent (4)	
		Recovered (3)	
	-	Recovering (2) Recent or no recovery (1)	
	4b. ]	labitat development. Select only one and assign score.	
		Excellent (7) Very good (6)	
	ľ	Good (5)	
	-	Moderately good (4) Fair (3)	
		Poor to fair (2)	
	40 -	Poor (1) labitat alteration. Score one or double check and average.	
	40. T	None or none apparent (9) Check all disturbances observed	
	Į	Recovered (6) which moving shrub/sapling r	
	. [	Recovering (3) grazing herbaceous/ag Recent or no recovery (1) clearcutting herbaceous/ag sedimentation	uatic bed removal
- 0	7	selective cutting dredging	
124		woody debris removal farming toxic pollutants nutrient enrichi	ment -
subtotal this p	<b>∟</b> bage	La toxio poliatarito	
last revised 1 Februa	ary 200	l jjm	

7

ORAM v. 5.0 Field Form Quantitative Rating

Site:	WIM-	13		Rater	(s): 、	JF,	HSF	Da	te: 10-15-20
	っ? subtotal first page	Vlet	ric 5. Sp	pecial Wetlar	nds.				
max 10 pts.	subtotal C	heck a	Bog (10) Fen (10) Old growth f	orest (10) tted wetland (5)	NO	4			
			Lake Erie co Lake Erie co Lake Plain S Relict Wet P Known occu	astal/tributary wetland- astal/tributary wetland-r and Prairies (Oak Oper	restricted had nings) (10) eatened or fowl habits	endange at or usag	(5) red species (10) ge (10)		
8	121		ric 6. Pl	ant commun	ities, i	inters	spersion,	200	graphy.
max 20 pts.	subtotal 6	a. Wet	land Vegetatio	n Communities.			munity Cover S		9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
	S		I present using Aquatic bed Emergent	0 to 3 scale.	1	Pr	esent and either	es <0.1ha (0.2471 acr comprises small part of moderate quality,	of wetland's
		1 .	Shrub					ut is of low quality	Territoria de
		2 4	Forest Mudflats Open water		2	Pr	esent and either	comprises significant of moderate quality of	
			Other zontal (plan vie	w) Interspersion.	3	Pre		ises significant part, o	r more, of wetland's
	Se	elect of	nly one.		08.650	200	The sales of		
		-	High (5)	(mls/4)			ption of Vegeta		
		7	Moderately hi Moderate (3)	a, a.s. Turk	low	d	listurbance tolera	nd/or predominance o ant native species	
				w (2) /e plants, Refer orm for list. Add	mod	a c n	lthough nonnativ an also be prese	ilinant component of the re and/or disturbance ent, and species divers but generally w/o pres	tolerant native spp sity moderate to
			t points for cov Extensive >79 Moderate 25- Sparse 5-25%	erage 5% cover (-5) 75% cover (-3) <b>RCG</b> 6 cover (-1)	high	n Ap	redominance of nd/or disturbance bsent, and high s	native species, with ne tolerant native species, with ne tolerant native species pp diversity and ofter are, threatened, or end	absent or virtually n, but not always,
		_		<5% cover (0)	88481-4				
	g.d	Mior	Absent (1) otopography.				n Water Class C		_
	So	ore all	present using	0 to 3 scale	1		sent <0.1ha (0.2	47 acres) 247 to 2.47 acres)	-
	-			nmucks/tussucks	2			(2.47 to 9.88 acres)	-
		2		debris >15cm (6in)	3		h 4ha (9.88 acre		<u> </u>
		1		d >25cm (10in) dbh	157	ography	Cover Scale	- 70.005%7	
					0	Abs			-272
				*	1	of	marginal quality		
					3	qu	uality or in small	amounts, but not of hamounts of highest qu	nighest µality
37					- 3		sent in moderate nd of highest qua	or greater amounts dity	

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	
	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	9	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	.0	
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	37	Category based on score breakpoints MODIF

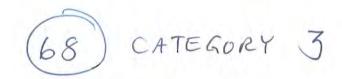
Complete Wetland Categorization Worksheet.

## 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 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	(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 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 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.

Final Category					
Category 1	Category 2	Category 3			
	1 M	ONIEIFI			
		Category 1 Category 2			

End of Ohio Rapid Assessment Method for Wetlands.



### **Background Information**

Name: JOHN FREELAND	
Date:	
11-16-2018 Affiliation:	
MANNIK & SMITH GROUP	
Address:  1800 INDIAN WOOD CIRCLE, MAUMEE, OH 43	537
Phone Number:	
(419) 891-2222 X 2013	
e-mail address: JFREELAND @ MANNIKSMITHGROUP.	com
Name of Wetland: WIM-133	
Vegetation Communit(ies):	
Vegetation Communit(ies):  PRIMARILLY PFO W SECONDARY PEM PS  HGM Class(es):	
RIVERINE DEPRESSIONAL  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE FIGURE 4, ATTACHED REPORT	
Lat/Long or UTM Coordinate	
-82.81083, -41.07501	
USGS Quad Name	
County	
Section and Subsection  CENTER TON TZN R24W	
Hydrologic Unit Code 041000120501	
Site Visit 10 - 17 - 18	
National Wetland Inventory Map	
Ohis Wattend Inventory Man	
Ohio Wetland Inventory Map	

Wetland Size (acres, hectares):  21.46 ACRE  Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
SEE ATTACHED WETLAND DELINEATION FIGURE 4.	MAP
Comments, Narrative Discussion, Justification 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.	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	16.
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly 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
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
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

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  Go to Question 10	Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES 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
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO:
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	_
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
44	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	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 Calamogrostis stricta Carex atherode, Carex buxbaumi Carex sartwelli Gentiana andrewsi Helianthus grosseserratu. Liatris spicata Lysimachia quadriflora Lythrum alatun Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutan. Spartina pectinata Solidago riddelli

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

selective cutting

toxic pollutants

woody debris removal

dredging

nutrient enrichment

farming

subtotal this page last revised 1 February 2001 jjm

	1	and tables.	ititative Rating	1		1	1000000
Site:	W	1001-	133	Rate	r(s): $JA$	FLAER	Date: 10/17/18
s	57	age					
0	57	Met	ric 5. Sp	ecial Wetla	nds.		
max 10 pts.	subiolal	Check a	Bog (10) Fen (10) Old growth for Mature foreste Lake Erie coas Lake Erie coas Lake Plain Sal Relict Wet Pra Known occurre Significant mig	d wetland (5) stal/tributary wetland stal/tributary wetland nd Prairies (Oak Ope iries (10)	restricted hydronings) (10) reatened or ender fowl habitation	ology (5) angered species (10) rusage (10)	
	68	10.00				erspersion, mic	rotopography.
max 20 pts.	subtotal		land Vegetation			Community Cover Scale	0 (0 2474 0000) 0001
		Score all		to a scale.	1	Present and either compri-	ha (0.2471 acres) contiguous area ses small part of wetland's derate quality, or comprises a ow quality
		2	Forest Mudflats Open water		2	Present and either compris	ses significant part of wetland's lerate quality or comprises a smal
		6b. horiz	Other zontal (plan view	) Interspersion.	3	Present and comprises sig vegetation and is of high	prificant part, or more, of wetland's quality
		Select of	High (5)		Narrative D	escription of Vegetation Qu	pality
		-	Moderately hig Moderate (3)	h(4)	low		redominance of nonnative or
			Moderately low Low (1) None (0) erage of invasive 1 ORAM long fo	plants. Refer	mod	although nonnative and/ can also be present, and	omponent of the vegetation, or disturbance tolerant native spp I species diversity moderate to perally w/o presence of rare ed spp
			t points for cover Extensive >75 Moderate 25-7 Sparse 5-25%	rage % cover (-5) 5% cover (-3) cover (-1)	high	A predominance of native and/or disturbance tolers absent, and high spp div	species, with nonnative spp ant native spp absent or virtually ersity and often, but not always, eatened, or endangered spp
			Nearly absent Absent (1)	<5% cover (0)	Mudflatan	d Open Water Class Quality	
		6d. Micro	otopography.		0	Absent <0.1ha (0.247 acre	
			present using 0	to 3 scale.	1	Low 0.1 to <1ha (0.247 to	
		2		mucks/tussucks	2	Moderate 1 to <4ha (2.47	to 9.88 acres)
		2	Standing dead	debris >15cm (6in) >25cm (10in) dbh	3	High 4ha (9.88 acres) or m	iore
		1	Amphibian bre	eding pools		raphy Cover Scale	
					1	Absent  Present very small amount of marginal quality	s or if more common
					2	Present in moderate amou quality or in small amoun	
					3	Present in moderate or gre and of highest quality	ater amounts

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 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	V
, taurig	Metric 2. Buffers and surrounding land use	19	
	Metric 3. Hydrology	19	
• 1	Metric 4. Habitat	15	
4	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	11	
	TOTAL SCORE	68	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

## Wetland Categorization Worksheet

Choices	Circle one	7525	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 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?	Wetfand 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 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.	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

End of Ohio Rapid Assessment Method for Wetlands.



# CATEGORY 1

## **Background Information**

Name: JOHN FREELAND	
Date: 11 -16 - 2018	
Affiliation:	
MANNIK & SMITH GROUP	
1800 INDIANWOOD CIRCLE, MAUNEE, OH	43537
Phone Number: (419) 891- 2222 X Z013	
e-mail address: JFREELAND DMANNIKSMITH GR	our com
Name of Wetland: WIM_137	
Vegetation Communit(ies):	
HGM Class(os):	
DEPRESSIONAL Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE ATTACHED WETLAND LOCATION	MAR
FIGURE 4.	
Lat/Long or UTM Coordinate 62 27/11/1 4/1 3/9/4 5	
Lat/Long or UTM Coordinate -82.77/14, 4/.31845	
County ERIE	
TOWNSHIP BELLEVIEW TSN, R24W	
Section and Subsection	
Hydrologic Unit Code 04/000	
01-18-11	
Site Visit 10-26-2018110103	
Site Visit  /0-26-20/8//0/03  National Wetland Inventory Map	
National Wetland Inventory Map  Ohio Wetland Inventory Map  Soil Survey	
01-18-1	

Name of Wetland:  WIM_137  Wetland Size (acres, hectares):  O. // ACRE		
Netland Size (acres, hectares):  O, [] ACRE  Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.		
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.		
SEE ATTACHED WETLAND DELINEATION FIGURE 4.	M	AP,
OF PHRAGMITES AUSTRALIS.	0 NO	CULTUR

#### **Scoring Boundary Worksheet**

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

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

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

#### **Narrative Rating**

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <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
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?	Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
Z.	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	(NO) Go to Question 8a
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canoples; 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

		V-10-	
Вb	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	NO Go to Question 9c
00	Are Lake Erie water levels the wetland's primary hydrological influence,	Go to Question 10 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 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 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

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 pelliti Carex sartwellit Gentiana andrewsit 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	137	Rater(s):	JAF	Date: 10-26-18
۸	D	Metric 1. Wetlar	nd Area (size).		
O max 6 pts.	subtotal	10 to <25 acres (4 to 3 to <10 acres (1.2 to 0.3 to <3 acres (0.12 0.1 to <0.3 acres (0.12 <0.1 acres (0.04ha)	(6 pts) 1 to <20.2ha) (5 pts) 5 <10.1ha) (4 pts) 6 <4ha) (3 pts) 2 to <1.2ha) (2pts) 04 to <0.12ha) (1 pt) (0 pts)		
1	1	Metric 2. Upland	buffers and	surrounding la	ınd use.
mex 14.pts.	subtotal	MEDIUM. Buffers at NARROW. Buffers at VERY NARROW. Buffers at VERY NARROW. Buffers at VERY LOW. 2nd graph LOW. Old field (>10 MODERATELY HIG	age 50m (164ff) or more a verage 25m to <50m (82 f average 10m to <25m (32 uffers average <10m (<32 nd use. Select one or do owth or older forest, prairi years), shrub land, young H. Residential, fenced pa	tround wetland perimeter (° o <164ft) around wetland p eft to <82ft) around wetland eft) around wetland perimet	7) perimeter (4) d perimeter (1) ter (0) etc. (7) illage, new fallow field. (3)
5)	9	Metric 3. Hydrol		эррид, пишя, сонапасас	16.(1)
max 30 pts.	subtotal	3c. Maximum water depth. Se >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 2 <0.4m (<15.7in) (1)	r (5) 3) t surface water (3) iter (lake or stream) (5) lect only one and assign s 27.6in) (2)	3d. Duration score.	vity. Score all that apply. 0 year floodplain (1) tween stream/lake and other human use (1) int of wetland/upland (e.g. forest), complex (1 int of riparian or upland corridor (1) inundation/saturation. Score one or dbl chei mi- to permanently inundated/saturated (4) gularly inundated/saturated (3) asonally inundated (2) asonally saturated in upper 30cm (12in) (1)
		3e, Modifications to natural hyd  None or none appare  Recovered (7)  Recovering (3)  Recent or no recover	ent (12) Check all disturb ditch tile	ances observed poi	int source (nonstormwater) ng/grading id bed/RR track idging er F/ELD DRAINAGE
1	. (	Metric 4. Habitat			
O max 20 pts.		4a. Substrate disturbance. Sco None or none appare Recovered (3) Recovering (2) Recent or no recovery Ab. Habitat development. Sele Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Ac. Habitat alteration. Score or	ore one or double check a nt (4) y (1) ct only one and assign so ne or double check and av	nd average.  ore.  erage.	
	5 ototal this pag 1 February	Recovered (6) Recovering (3) Recent or no recovery	mowing grazing	shru herb sedi tting s removal	ub/sapling removal paceous/aquatic bed removal imentation dging ning ient enrichment

Site:	Rate	r(s):	Date:
subtotal f	Metric 5. Special Wetla	nds 4	1/A
0 1	S Metric of Opecial Wella	nus. /	9/24
max 10 pts. subt	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	restricted hyd enings) (10) reatened or ener or fowl habitat o	dangered species (10) or usage (10)
-4 1	Metric 6. Plant commun	ities, in	terspersion, microtopography.
max 20 pts. subto		Variation	
and plant	6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation	n 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
	I ≽ 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) Interspersion.		vegetation and is of high quality
	Select only one.		- I state is a state of might during
	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
	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	d Open Weter Class Guellin
	6d. Microtopography.	0	d 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/tussucks	2	
	O 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	- 3	riigh and (a.oo doles) of more
	a Amphibian breeding pools	Microtopog	raphy Cover Scale
	Carlo de la compania del compania de la compania de la compania del compania de la compania del la compania del la compania de  la compania del la compania de la compania del la	0	Absent
		1	Present very small amounts or if more common
1	1 15		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
- 4			and of highest quality
1.			and at ingriout 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.
9	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 (O)	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	
Nating	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	8	
	Metric 4. Habitat	6	
	Metric 5. Special Wetland Communities	ō	
	Metric 6. Plant communities, interspersion, microtopography	-4	
	TOTAL SCORE	11	Category based on score breakpoints

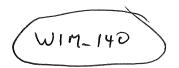
Complete Wetland Categorization Worksheet.

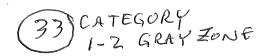
## Wetland Categorization Worksheet

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 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 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?	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	11	Category 2	Category :
Choose one Category 1	11	Category 2	Categor

End of Ohio Rapid Assessment Method for Wetlands.





## **Background Information**

Name: JOHN FREE LAND
Date:
11-20-18 Affiliation: 1 = 1 = 2 = 1 = 2
Affiliation:  MANNIK SMITH GROUP  Address:
1800 INDIAN WOOD CIRCLE, MAUMEE, OH 43537
Phone Number: (419) 891-2222 × 2013
e-mail address: JFREELAND @ MANNIKSMITHGROUP.com
Name of Wetland: WIM-140
Vegetation Communit(les):
HGM Class(es):
DEPRESSIONAL / RIVERINE  Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4,
·
Lat/Long or UTM Coordinate
USGS Quad Name  41. 20032 , -82. 78161
HURON
TOWNSHIP FLAT ROCK T3N, R2YW
Section and Subsection
Hydrologic Unit Code 04/000120503
Site Visit 10-29-2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey Soil Survey of HURON COUNTY, OHIO
SOIL SURVEY OF HUILONG COUNTY OTTO

Wetland Size (acres, hoctares):  ### A. SEE ATTACHED WETLAND DELINGATION MAR,  FIGURE 4.  Comments, Narrative Discussion, Justification of Category Changes:	Name of Wetland:	0	
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.  SEE ATTACHED WETLAND DELINEATION MAP, FIGURE 4.	Wetland Size (acres hoctares):	140	
SEE ATTACHED WETLAND DELINEATION MAR, FIGURE 4.	Sketch: Include north arrow relationship	n with other surface waters vegetation zones et	
omments, Narrative Discussion, Justification of Category Changes:	Sketch: Include north arrow, relationship SEE ATTACHED WI	p with other surface waters, vegetation zones, et	c. N MAP,
	comments, Narrative Discussion, Justific	ation of Category Changes:	
inal score : 27 Category:	luct and the second		

#### 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	1
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	Travers of the
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
	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
a	"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	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 10	Go to Question 9c
	the state of the s	YES	(NO)
9¢	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
	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 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	(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.		
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 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 stricte. Carex atherodes. Carex buxbaumin. Carex pellita. Carex sartwelli. Gentiana andrewsis. Helianthus grosseserratus. Liatris spricata. Lysimachia quadriflora. Lythrum alatum Pycnanthemum virginianum. Silphium terebinthaceum. Sorghastrum nutans. Spartina pectinata. Solidago riddellii

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

Site: WIM.	140	Rater(s):		Date: 10-29-18
2 2 max 6 pts. subtotal	Select one size class and assigned by the size class acres (20.2 to <50 acres (10.2 to <0.3 to <10 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 to <0.3 acres (0.12 to <0.3 acres (0.1	gn score. (6 pts) 1 to <20.2ha) (5 pts) - <10.1ha) (4 pts) o <4ha) (3 pts) to <1.2ha) (2pts) 04 to <0.12ha) (1 pt)	(33)	CATEGORY-I GRAY ZONE
max 14.pts. subtotal	2a. Calculate average buffer v WIDE. Buffers avera	to pts)  I buffers and surroun  Additional contents and surroun  Additional contents and surround wettand  Additional contents are a surround  Additional contents and surround  Additional contents are a surround  Additional contents and surround  Addit	e. Do not double check. d perimeter (7) und wetland perimeter (4)	
	VERY NARROW. B 2b. Intensity of surrounding lar VERY LOW. 2nd gre LOW. Old field (>10 MODERATELY HIGH WIGH. Urban, indust	uffers average <10m (<32ft) around we nd use. Select one or double check an owth or older forest, prairie, savannah, years), shrub land, young second grow i. Residential, fenced pasture, park, co rial, open pasture, row cropping, mining	tland perimeter (0) d average. wildlife area, etc. (7) rth forest. (5) onservation tillage, new fallo	w field. (3)
16 20	Metric 3. Hydrol	ogy.	•	1
max 30 pts. subtotal	3a. Sources of Water. Score a High pH groundwater (3 Precipitation (1) Seasonal/Intermitten Perennial surface wa 3c. Maximum water depth. Se  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 2 <0.4m (<15.7in) (1) 3e. Modifications to natural byore.	(5) surface water (3) ter (lake or stream) (5) lect only one and assign score.	Part of wetland/up Part of riparian or d. Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally satura	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3)
	None or none appare Recovered (7) Recovering (3) Recent or no recover	nt (12) Check all disturbances observed ditch tile dike weir stormwater input	point source (non: filling/grading road bed/RR track dredging other FIECD	
8 28	Metric 4. Habitat	Alteration and Deve	lopment.	
max 20 pts. subtotal	4a. Substrate disturbance. Social None or none appare Recovered (3)  Recovering (2)  Recent or no recovery  4b. Habitat development. Sele  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)	, (1)		
	Poor (1) 4c. Habitat alteration. Score or	e or double check and average		
subtotal this pag	None or none apparer Recovered (6) Recovering (3) Recent or no recovery	nt (9) Check all disturbances observed mowing grazing	shrub/sapling remondered sedimentation dredging farming nutrient enrichmen	c bed removal
ingricaiged in eningi	<del>,</del>			

Site:	WIM	-140	Rate	r(s): <	TAF	Date: 10-29-1
s	28 ubtotal first page					P
0	28 M	letric 5. Spe	cial Wetla	nds.	NA	
max 10 pts.		eck all that apply and s	core as indicated		36	
7/1/A /11/2 & 1. 10		Bog (10)	core as marcated.			
		Fen (10)	i edin.			
		Old growth fores Mature forested				
			al/tributary wetland-	-unrestricted	hydrology (10)	
		Lake Erie coasta	al/tributary wetland-	restricted h	ydrology (5)	
			Prairies (Oak Ope	nings) (10)		
		Relict Wet Prairi	es (10) ice state/federal thr	natared or	and angurad ana	ilea (40)
			atory songbird/wate			des (10)
		Category 1 Wetl	and. See Question	1 Qualitativ	ve Rating (-10)	
T	22 M	etric 6. Plan	t commun	ities. i	nterspers	sion, microtopography.
3	2)					in in included in its included
max 20 pts.		Wetland Vegetation C			ion Community	
	Sco	re all present using 0 to Aquatic bed	o 3 scale.	0	Absent or	comprises <0.1ha (0.2471 acres) contiguous area
	1		MINANT	,		od either comprises small part of wetland's on and is of moderate quality, or comprises a
	j	Shrub MINO				nt part but is of low quality
	,	Forest		2	Present an	d either comprises significant part of wetland's
		Mudflats Open water				on and is of moderate quality or comprises a small
		Other		3		is of high quality d comprises significant part, or more, of wetland's
	6b.	horizontal (plan view) I	nterspersion.			n and is of high quality
	Sele	ct only one.		47.000		A. O.
		High (5) Moderately high(4)	4)	Narrative		Vegetation Quality versity and/or predominance of nonnative or
		Moderate (3)	7	1000		ce tolerant native species
		Moderately low (2	2)	mod		are dominant component of the vegetation,
		Low (1)			although	nonnative and/or disturbance tolerant native spp
	6c (	None (0) Coverage of invasive pl	lants Refer		can also i	be present, and species diversity moderate to ly high, but generally w/o presence of rare
		able 1 ORAM long form			threatene	d or endangered spp
	or de	educt points for coverag		high	A predomin	ance of native species, with nonnative spp
		Extensive >75% o				turbance tolerant native spp absent or virtually
	1	Moderate 25-75% Sparse 5-25% co				nd high spp diversity and often, but not always, nce of rare, threatened, or endangered spp
	1	Nearly absent <59		A section	the presen	ice of fare, unreatened, or endangered spp
	84	Absent (1)		Mudflat a	nd Open Water	
		Microtopography.  all present using 0 to	0.00010	0		1ha (0.247 acres)
	Score	Vegetated hummu		1 2		tha (0.247 to 2.47 acres) to <4ha (2.47 to 9.88 acres)
		2 Coarse woody del		3	The second liverage and the se	88 acres) or more
		Standing dead >2	5cm (10in) dbh	Salar In Page		
	L	Amphibian breeding	ng pools		ography Cover S	Scale
				0	Absent Present very	small amounts or if more common
4					of margina	
				2	Present in m	oderate amounts, but not of highest
						n small amounts of highest quality
				3	10 X 20 X	oderate or greater amounts

End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

	,	circle	
		answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 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	
reading	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	33	Category based on score breakpoints /-2  GRAY ZONE

Complete Wetland Categorization Worksheet.

### Wetland Categorization Worksheet

Choices	Circle one	0	Evaluation of Categorization Result of ORAM
Dld 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	6	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	(10)	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?	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	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
-110000 0110	1	outegoly i	Category 2	Category 3
711111111111111111111111111111111111111	-			

End of Ohio Rapid Assessment Method for Wetlands.

WIM-14/



## **Background Information**

Name: JOHN FREELAND
Date:
11-20-18 Affiliation:
MANNIK & SMITH GROUP
Address: 1800 INDIANWOOD GIRCLE
Phone Number: (4/9) 891-2222 X 2013
No addresses
Name of Wetland: , , , , , , , , , , , , , , , , , , ,
Name of Wetland: $\omega/M - 14/$ Vegetation Communit(les):
PFO
HGM Class(es): DEPRESSIONAL / RIVERINE
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
Lat/Long or UTM Coordinate
USGS Quad Name 4/. 19912. 82.78315
USGS Quad Name
HURON
TOWNSHIP FLAT ROCK T3N, R24W
Section and Subsection
Hydrologic Unit Code 04/000 120503
Site Visit 10 - 29 - 2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey
Delineation report/man
ATTACHED

Name of Wetland:			
Wetland Size (acres, hectares): 1.11 ACRES			
Sketch: Include north arrow, relationship with other surface waters, vegetation zo	ones, etc.	17501672	
SEE ATTACHED WETLAND DELINEATION	MAP,	FIGURE.	
Comments, Narrative Discussion, Justification of Category Changes:			
Final score: 47	Categor	y: 2	

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	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	100-20
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	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
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

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8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
OD	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 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	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 wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Doos 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
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
<b>3</b> 6	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status Go to Question 10	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Wetland is a Category 3 wetland.	Go to Question 11
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	Go to Question 11	
	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 plaine 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

Toble 4	Characteristic plant spe	
Table 1.	Characteristic blant spe	CIAS

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 stricte Carex atherode. Carex buxbaumi Carex pellite Carex sartwelli Gentiana andrewsi. Helianthus grosseserratus Liatris spicate 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 Form Quantitative Rating

Site:		Rater	(s):	Date:
sul	34 btotal 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-u 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	logy (5) angered species (10) usage (10) ating (-10)
13	47	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		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	scription 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)		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)
		3 Coarse woody debris >15cm (6in)	3 .	High 4ha (9.88 acres) or more
		2 Standing dead >25cm (10in) dbh		
		Amphibian breeding pools	Microtopogra	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

47

End of Quantitative Rating. Complete Categorization Worksheets.

Site:	WII	4-141	Rater(s):	JAF	Date: 10-29-18
3 max 6 pts.	3 subtotal	Metric 1. We	etland Area (size).	(47)	CATEGORY 2
		25 to <50 acres 10 to <25 acres 3 to <10 acres 0.3 to <3 acres 0.1 to <0.3 acres <0.1 acres (0.	es (10.1 to <20.2ha) (5 pts) es (4 to <10.1ha) (4 pts) s (1.2 to <4ha) (3 pts) s (0.12 to <1.2ha) (2pts) res (0.04 to <0.12ha) (1 pt) 04ha) (0 pts)		
1	4	Metric 2. Upl	and buffers and	surrounding	land use.
max 14.pts.	subtotal	wide. Buffers MEDIUM. Buf NARROW. Bu VERY NARRO  2b. Intensity of surround VERY LOW. 2 LOW. Old field MODERATELY	uffer width. Select only one and average 50m (164ft) or more a fers average 25m to <50m (82 to ffers average 20m to <25m (32 to ffers average 10m to <25m (32 to ffers average <10m (<32 to ffers average <10m (saying land use. Select one or dought growth or older forest, prairied (>10 years), shrub land, young of HIGH. Residential, fenced pasindustrial, open pasture, row cro	round wetland perimeted of <164ft) around wetland to <82ft) around wetland perift) around wetland perift) around wetland perift of the check and averaged, savannah, wildlife and second growth forest.	er. (7) nd perimeter (4) land perimeter (1) meter (0) e. ea, etc. (7) (5)
19	23	Metric 3. Hyd	lrology.	pping, mining, constru	cuon. (1)
max 30 pts.	subtotal	3c. Maximum water dept    >0.7 (27.6in) (3   0.4 to 0.7m (15.   <0.4m (<15.7in)   3e. Modifications to nature	dwater (5) ater (3) ) nittent surface water (3) ce water (lake or stream) (5) h. Select only one and assign so ) 7 to 27.6in) (2)	3d. Durati	ectivity. 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)  on 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)  average.
		Recovered (7) Recovering (3) Recent or no rec	ditch		point source (nonstormwater) filling/grading road bed/RR track dredging other FIELD DRAINAGE
11	34	Metric 4. Hab	itat Alteration and		
nax 20 pts.	subtotal	None or none as Recovered (3) Recovering (2) Recent or no red 4b. Habitat development.  Excellent (7) Very good (6)  Good (5)  Moderately good  Fair (3)  Poor to fair (2)  Poor (1)	overy (1) Select only one and assign scor (4) re one or double check and aver	e."	
subto	34]	None or none app Recovered (6) Recovering (3) Recent or no reco	parent (9) Check all disturbant mowing grazing	ces observed Sh he se ng dr removal	nrub/sapling removal erbaceous/aquatic bed removal dimentation edging ming trient enrichment

WIM\_141

### **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 (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	3	
Raung	Metric 2. Buffers and surrounding land use	1	# 1
	Metric 3. Hydrology	19	
	Metric 4. Habitat	Íſ	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	13	
	TOTAL SCORE	47	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

### Wetland Categorization Worksheet

Choices	Circle one	/W /	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	<b>®</b>	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 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?	Vetland 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**

<u> </u>
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e-mail address: (4/9) 89/- 2222 X 20/3
JEREELAND WMANNIKSMITHGROUP.COM
Name of Wetland: $\omega_{I} = 144$
Vegetation Communit(ies):
HGM Class(es):    DEPRESSIONAL   RIVERINE   Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE 4.
·
The second secon
Lat/Long or UTM Coordinate 41, 25874, 82, 76365
USGS Quad Name
County
TOWNSHIP BELLEVIEW THN, R24W
Section and Subsection
Hydrologic Unit Code 04/000/20504
Site Visit 10-31-2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey SOIL SARVEY OF HURON COUNTY, OH
Delineation report/map  A TTACHED

	Wir	1-144		
tland Size (acres,		0,55	The state of the s	
		p with other surface waters		Text 12 12
SEE A.	TTACHED	WETLAND	DELINEATION	MAP
FIGURE	4			
1 7				
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes	:	
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
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ments, Narrative I	Discussion, Justific	ation of Category Changes		
iments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		
iments, Narrative I	Discussion, Justific	ation of Category Changes		
ments, Narrative I	Discussion, Justific	ation of Category Changes		

WIM-144

WIM-144

### 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).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES  Wetland is a Category 3 wetland  Go to Question 4	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 Juestion 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 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
a	"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 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 10	NO Go to Question 9c
	u l l l l l l l l l l l l l l l l l l l	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
0-1	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 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 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 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 canadensis Calamagrostis stricta Carex atherodes Carex buxbaumin Carex pellita Carex sartwelli 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.

Site:	W	M-144		Rater(s):	JAF		Date:	10-31-18
		7						
2	2	Metric 1.	Wetland A	Area (size).	,			٠.
max 6 pts.	subtotal	Select one size	class and assign sco	ore.				
			cres (>20.2ha) (6 pts <50 acres (10.1 to <					
		10 to	<25 acres (4 to <10.	1ha) (4 pts)				
			10 acres (1.2 to <4ha <3 acres (0.12 to <1					
			<0.3 acres (0.04 to					
		<del></del>	, ,, ,		surround	ing land use.		
	3		- p					
max 14.pts.	subtotal		verage buffer width. . Buffers average 50			Do not double check.	•	
		MEDI	JM. Buffers average	25m to <50m (82 t	o <164ft) around	wetland perimeter (4)		
			OW. Buffers averag NARROW. Buffers			nd wetland perimeter (1) nd perimeter (0)		
			surrounding land use LOW, 2nd growth o					
		LOW.	Old field (>10 years	), shrub land, young	second growth	forest. (5)		
			RATELY HIGH. Re Urban, industrial, o			ervation tillage, new fallor construction. (1)	w field. (3)	
10/	21	Metric 3.	Hydrology	<b>.</b>				
18	4							•
max 30 pts.	subtotal		Vater. Score all that H groundwater (5)	apply.	3b.	Connectivity. Score all the 100 year floodplain		•
			groundwater (3) Itation (1)			Between stream/la Part of wetland/up		
		Seaso	nal/Intermittent surfa		0.4	Part of riparian or t	upland corr	idor (1)
			nial surface water (lal ater depth. Select or			Duration inundation/satur		
			7.6in) (3) ).7m (15.7 to 27.6in)	(2)		Regularly inundate  Seasonally inundate		1 (3)
		<b>₹</b> <0.4m	(<15.7in) (1)		o ar daublo aboa	Seasonally saturate		30cm (12in) (1)
		-	to natural hydrologi r none apparent (12)	1		k and average.	fue expenses	
		Recove	ered (7)	ditch		point source (nonst	tormwater)	
•		Recove Recent	or no recovery (1)	tile dike		road bed/RR track		
				weir stormwater	input	dredging MO	WING	â
		Motric 1	Habitat Alt	L	·			<del></del>
6	27	Wieliic 4.	Habitat Alt	Cialion and	u Develo	hmenr		
max 20 pts.	subtotal		turbance. Score one	or double check ar	nd average.			
•		Recove				·		
		Recove Recent	ring (2) or no recovery (1)		u,		•	` .
		4b. Habitat devel	opment. Select only	one and assign sco	re. ˙	•		
		Exceller Very go			•			
		Good (5	i) tely good (4)					
		Fair (3)					•	
		Poor to Poor (1)	•					•
	•		ion. Score one or do					<del></del>
		Recover		Check all disturbar mowing	ices observed	shrub/sapling remov		
		Recover Recent	ing (3) or no recovery (1)	grazing clearcutting	}	herbaceous/aquatic sedimentation	bed remova	al
<u> </u>	7-1			selective cutt		dredging		
( V		•		woody debris toxic pollutan		farming nutrient enrichment		-
subtot last revised 1 F	al this page ebruary		<u>l</u>	•				

Site:	W1M-144	Rater(s): .	JAF	Date: //-20-
2 subtota	1 first page			
0	Metric 5. Special W	etlands.		
max 10 pts. su	Check all that apply and score as indice Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary w Lake Erie coastal/tributary w Lake Plain Sand Prairies (O: Relict Wet Prairies (10)	etland-unrestricted etland-restricted hy ak Openings) (10)	drology (5)	
	Known occurrence state/fed	d/water fowl habitat	or usage (10)	
-1 2	Category 1 Wetland. See Q			icrotopography.
	total 6a. Wetland Vegetation Communities.	Vegetation	on Community Cover Scale	
	Score all present using 0 to 3 scale.	0		.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent Shrub	1	Present and either com	prises small part of wetland's oderate quality, or comprises a
	Forest Mudflats Open water	2	vegetation and is of m part and is of high qua	
	Other 6b. horizontal (plan view) Interspersion Select only one.	. 3	Present and comprises s vegetation and is of high	significant part, or more, of wetland's gh quality
	High (5)	Narrative	Description of Vegetation (	Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or disturbance tolerant na	predominance of nonnative or ative species
	Moderately low (2) Low (1) None (0)	mod	although nonnative and	component of the vegetation, d/or disturbance tolerant native spp nd species diversity moderate to
	6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but ge threatened or endanger	enerally w/o presence of rare
	or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	and/or disturbance tole absent, and high spp di	e species, with nonnative spp rant native spp absent or virtually versity and often, but not always, reatened, or endangered spp
	Nearly absent <5% cover (0)	30.025.5		
	Absent (1) 6d. Microtopography.	Mudflat an	d Open Water Class Quality	
	Score all present using 0 to 3 scale.	1	Absent <0.1ha (0.247 ac Low 0.1 to <1ha (0.247 to	
	Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47	
	O Coarse woody debris >15cm (6	Bin) 3	High 4ha (9.88 acres) or n	
	Standing dead >25cm (10in) di Amphibian breeding pools		raphy Cover Scale	
		0	Absent	
<b>3</b> .		1	Present very small amoun of marginal quality	
		2	Present in moderate amou quality or in small amour	nts of highest quality
-		3	Present in moderate or gre and of highest quality	eater amounts

End of Quantitative Rating. Complete Categorization Worksheets.

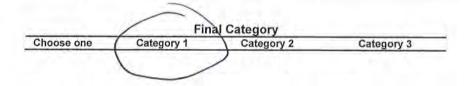
### **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (O)	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	
rearing	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	18	
	Metric 4. Habitat	6	
	Metric 5. Special Wetland Communities	Ö	
	Metric 6. Plant communities, interspersion, microtopography	-1	
	TOTAL SCORE	26	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

### Wetland Categorization Worksheet

Choices	Circle one	4	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 categorized 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	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-150



### **Background Information**

Name: JOHN FREELAND	
Date: 11-20-18	
Affiliation: MANNIK & SMITH GROUP	
Address: 1800 INDIANWOOD CIRCLE	
Phone Number: (4/9) 891-2222 × 2013	
e-mail address:	00.000.00
Name of Wetland: VIIM 150	ROUP, COM
Vocatation Communit/lock	PFM
HGM Class(es):  PERESSION AL / RIVERIALE	, 10.1
DEPRESSIONAL RIVER (NE Location of Wetland: include map, address, north arrow, flandmarks, distances, roads, etc.	
SEE ATTACHED LOCATION MAP, FIGURE 4	d.
Lat/Long or UTM Coordinate 41, 16/91 , -82.80952	450016467-0566766
USGS Quad Name	
County	
TOWNSHIP FLAT ROCK T3N R24W	
Section and Subsection	
Hydrologic Unit Code 041000/20503	
Site Visit 11-5-20/8	
National Wetland Inventory Map	1
Ohio Wetland Inventory Map	
Soil Survey SOIL SURVEY OF HURON COUNTY, OH	
Delineation report/map  A TTACHED	

Name of Wetland:  WIM  Wetland Size (acres, hectares):	_150		
Wetland Size (acres, hectares): * Sketch: Include north arrow, relati	13.04 AC	RES	
		DELINEATION	MAP
FIGURE 4.			
omments, Narrative Discussion, J	lustification of Category Cha	anges:	
	V		
ţ			
nal score : //		Category	

### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	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.	U JES	
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.	YE5	
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	(NO) Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES  Wetland is a Category 3 wetland  Go to Question 4	Go to Question 4
	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	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 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	Go to Question 8b

		T 1.25	1010
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	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	Doos the wetland's hydrology result from measures designed to	YES	NO
30	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 wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Door the wetland have a predominance of native species within its	YES	NO
<b>9</b> u	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 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		
	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	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellti
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata

Eriophorum virginicum Gentianopsis spp. Larix laricina Lobelia kalmii Nemopanthus mucronatus Parnassia glauca Potentilla fruticosa Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Rhamnus alnifolia Rhynchospora capillacea Salix candida Vaccinium corymbosum Vaccinium oxycoccos Salix myricoides Woodwardia virginica Salix serissima Xyris difformis

Table 1. Characteristic plant species.

Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre

Typha xglauca

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:	WIM	-150		Rater(s):	JAF	Date:	11-5-18
4	4	Metric	1. Wetland	Ārea (size).			٠.
max 6 pts.	subtotal	>5 25 X 10 3 ·	ize class and assign sc 50 acres (>20.2ha) (6 pt 5 to <50 acres (10.1 to < 6 to <25 acres (4 to <10. 6 to <10 acres (1.2 to <4h 6 to <3 acres (0.12 to < 6 to <0.3 acres (0.04 to 6 to <0.3 acres (0.04 to 6 to <0.04ha) (0 pts	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)			
2	6	Metric	2. Upland bu	ıffers and s	urroundin	g land use.	
max 14.pts.	subtotal	2b. Intensity	e average buffer width. DE. Buffers average 50 EDIUM. Buffers average ARROW. Buffers average ERY NARROW. Buffers of surrounding land use ERY LOW. 2nd growth of W. Old field (>10 years DDERATELY HIGH. Re GH. Urban, industrial, o	om (164ft) or more and 25m to <50m (82 to to <50m (82 to the 10m to <25m (32ft average <10m (<32ft conditions or dout or older forest, prairie, shrub land, young sidential, fenced past	ound wetland perim <164ft) around we to <82ft) around w ) around wetland p ole check and avera savannah, wildlife second growth fore ure, park, conserva	neter (7) tland perimeter (4) vetland perimeter (1) erimeter (0) age. area, etc. (7) st. (5) ation tillage, new fallow field. (3)	
16	27	Metric	3. Hydrology	<b>/.</b>			
max 30 pts.	subtotal	3c. Maximun  3c. Maximun  3d. Modificat  Nor	of Water. Score all that the pH groundwater (5) her groundwater (3) ecipitation (1) assonal/Intermittent surfacennial surface water (land water depth. Select or 7 (27.6in) (3) to 0.7m (15.7 to 27.6in) (4m (<15.7in) (1) ions to natural hydrologine or none apparent (12, covered (7)	ce water (3) ke or stream) (5) nly one and assign sc (2) c regime. Score one	3d. Dur ore.	nnectivity. Score all that apply.  100 year floodplain (1) Between stream/lake and othe Part of wetland/upland (e.g. fo Part of riparian or upland corri- ration inundation/saturation. Scor Semi- to permanently inundate Regularly inundated/saturated Seasonally inundated (2) Seasonally saturated in upper nd average.	rest), complex (1) dor (1) e one or dbl check. ed/saturated (4) (3)
		<b>℃</b> Red	covering (3) cent or no recovery (1)	tile dike weir stormwater in	put	filling/grading road bed/RR track dredging other	
10	0.2	Metric 4	4. Habitat Alt				
max 20 pts.	3V subtotal		disturbance. Score one	e or double check and	average.		
		4b. Habitat de Exce Very X Goo Mod Fair Poor Poor	erately good (4) (3) to fair (2)				
subt	32 total this page	None Recc X Recc Recc	e or none apparent (9) overed (6) overing (3) ent or no recovery (1)	Check all disturband mowing grazing clearcutting selective cuttin woody debris r toxic pollutants	g emoval `	shrub/sapling removal herbaceous/aquatic bed remova sedimentation dredging farming nutrient enrichment	

last revised 1 February 2001 jjm

Site:	WIM-150	Rater(s):	JAF	Date: 1/-5-18
	32 subtotal first page			
0	32 Metric 5. Spec	ial Wetlands.		
max 10 pls.	subtotal Check all that apply and sco Bog (10) Fen (10) Old growth forest Mature forested w Lake Erie coastal/ Lake Plain Sand F Relict Wet Prairies	(10) vetland (5) tributary wetland-unrestricted tributary wetland-restricted h Prairies (Oak Openings) (10)	ydrology (5)	
	Significant migrato	ory songbird/water fowl habitation. See Question 1 Qualitation	at or usage (10)	
14 max 20	46 Metric 6. Plant	communities, i	nterspersion	, microtopography.
max zc .	subtotal 6a. Wetland Vegetation Con Score all present using 0 to 3		ion Community Cover	scale les <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent Shrub	1	Present and either vegetation and is	r comprises small part of wetland's s of moderate quality, or comprises a ut is of low quality
	Forest Mudflats Open water	2	Present and either vegetation and is part and is of hig	comprises significant part of wetland's s of moderate quality or comprises a small h quality
	Other6b. horizontal (plan view) Inte	erspersion. 3	Present and comp vegetation and is	rises significant part, or more, of wetland's of high quality
	Select only one. High (5)	Marrathy	e Description of Vegeta	tion Quality
	Moderately high(4) Moderate (3)	low	Low spp diversity a disturbance toler	and/or predominance of nonnative or and native species
	Moderately low (2) Low (1)	mod	although nonnativ	ninant component of the vegetation, ve and/or disturbance tolerant native spp
	None (0)  6c. Coverage of invasive plar to Table 1 ORAM long form for			ent, and species diversity moderate to but generally w/o presence of rare langered spp
	or deduct points for coverage  Extensive >75% cov  Moderate 25-75% c  Sparse 5-25% cove	over (-3) r (-1)	and/or disturbanc absent, and high	native species, with nonnative spp e tolerant native spp absent or virtually spp diversity and often, but not always, are, threatened, or endangered spp
	Nearly absent <5% Absent (1)		and O 10/-t Ol 6	N 174.
	6d. Microtopography.	0	and Open Water Class C Absent <0.1ha (0.2	
	Score all present using 0 to 3 s		Low 0.1 to <1ha (0.2	
	Vegetated hummuck		Moderate 1 to <4ha	
	Coarse woody debri	s >15cm (6in) 3	High 4ha (9.88 acre	
	Standing dead >25c		ography Cover Seal-	
	Amphibian breeding	pools Microtopo	Ography Cover Scale Absent	
		. 1		mounts or if more common
		2	Present in moderate	amounts, but not of highest amounts of highest quality
		3	Present in moderate	VI # 010071 7010 70171

End of Quantitative Rating. Complete Categorization Worksheets.

WIM\_150

## **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	4	
Rating	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	14	
	TOTAL SCORE	46	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	YES  Wetland is categorized as a Category 1 wetland	(NO,)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM	
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES  Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.	
Does the quantitative score all 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 schibit moderate OR superior ydrologic OR habitat, OR excreational functions AND ne wetland was not attegorized as a Category 2 retland (in the case of looderate 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	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
------------	------------	------------	------------

End of Ohio Rapid Assessment Method for Wetlands.



### **Background Information**

3537
O. Com
nasyuabaaninii

fetland Size (acres, hectares): /	
(etland Size (acres, hectares): 1,67 ACRE ketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
SEE ATTACHED WETLAND DELINEATION FIGURE 4,	MAP,
nments, Narrative Discussion, Justification of Category Changes:	
11	

WIM-152

#### 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.	JES	
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
	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	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  Go to Question 8a	Go to Question 8a
a .	"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
		Co to Ougetian Og	
	Lake Erie coastal and tributary wetlands. Is the wetland located at	Go to Question 9a	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	Go to 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 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	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	NO.
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	NO Go to Question 10
	10 to	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 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.		
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 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 stricta Carex atherodes Carex buxbaumii Carex pellita Carex sartwellii Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

Site:	WIM	_152	Rater(s): J	AF	Date: /	1-7-2018
2	2	Metric 1. Wet	land Area (size).			·.
max 6 pts.	subtotal	10 to <25 acres 3 to <10 acres  3 to <3 acres 0.1 to <0.3 acres <0.1 acres (0.0	.2ha) (6 pts) s (10.1 to <20.2ha) (5 pts) s (4 to <10.1ha) (4 pts) (1.2 to <4ha) (3 pts) (0.12 to <1.2ha) (2pts) ss (0.04 to <0.12ha) (1 pt) 4ha) (0 pts)		(17) CATEG	0 K Y
11	3	Metric 2. Upla	and buffers and sur	rounding	ı land use.	
max 14.pts.	subtotal	WIDE. Buffers MEDIUM. Buff NARROW. Buff VERY NARRON 2b. Intensity of surroundi VERY LOW. 2i LOW. Old field MODERATELY	ffer width. Select only one and assi- average 50m (164ft) or more around ers average 25m to <50m (82 to <16 fers average 10m to <25m (32ft to V. Buffers average <10m (<32ft) ar- ing land use. Select one or double of d growth or older forest, prairie, sav (>10 years), shrub land, young second HIGH. Residential, fenced pasture, ndustrial, open pasture, row cropping	wetland perime (4ft) around wetla (82ft) around wetla (82ft) around we ound wetland per (46ft) annah, wildlife a ond growth forest park, conservati	ter.(7) and perimeter (4) tland perimeter (1) rimeter (0) ge. rea, etc. (7) (5) ion tillage, new fallow field. (3)	
14	77	Metric 3. Hyd	rology.			
max 30 pts.		Rerennial surfactions of the state of the st	water (5) ter (3)  wittent surface water (3) e water (lake or stream) (5) . Select only one and assign score. 7 to 27.6in) (2)	3d. Durat	nectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other h Part of wetland/upland (e.g. fores) Part of riparian or upland corridor tion inundation/saturation. Score of Semi- to permanently inundated/s Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 300 average.	ot); complex (1) (1) one or dbl check. saturated (4)
		None or none at Recovered (7) Recovering (3) Recent or no rec	parent (12) Check all disturbances ditch tile	observed	point source (nonstormwater) filling/grading road bed/RR track dredging other	
3	20	Metric 4. Habi	tat Alteration and D	evelopm	ent.	
max 20 pts.		None or none ap Recovered (3) Recovering (2) Recent or no recovering the Habitat development. Excellent (7)		erage.		
		Very good (6) Good (5) Moderately good Fair (3) Poor to fair (2) Poor (1)		·		
	4	c. Habitat alteration. Scor	e one or double check and average. earent (9) Check all disturbances of	bserved		<b>]</b> ·
	20 otal this page	Recovered (6) Recovering (3) Recent or no reco	mowing grazing	soval , s	shrub/sapling removal nerbaceous/aquatic bed removal sedimentation dredging arming nutrient enrichment	
INDE I CAIDER	. Colualy		*			

Site:	WIM-	-152	Rat	er(s):	JAF	Date: //-7-/8
	20 subtotal first pa			al 2.5.		•
0	20	Metric 5. Sp	ecial Wetla	inds.		
max 10 pts		Check all that apply and Bog (10) Fen (10) Old growth for Mature foreste	rest (10) ed wetland (5)			
		Lake Erie coa: Lake Plain Sa. Relict Wet Pra Known occurre Significant mig	stal/tributary wetland stal/tributary wetland nd Prairies (Oak Op iiries (10) ence state/federal th gratory songbird/wat etland. See Questic	d-restricted h enings) (10) nreatened or er fowl habita	ydrology (5) endangered specie at or usage (10)	es (10)
-3	17					ion, microtopography.
nax 20 pts.	subtotal	6a, Wetland Vegetation			ion Community C	
		Score all present using 0	to 3 scale.	0		omprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub		1	vegetation significant	either comprises small part of wetland's and is of moderate quality, or comprises a part but is of low quality
	Ÿ	O Forest O Mudflats O Open water		2	vegetation	either comprises significant part of wetland's and is of moderate quality or comprises a small of high quality
		Other	Interspersion.	3	Present and	comprises significant part, or more, of wetland's and is of high quality
		High (5)		Narrative	Description of V	egetation Quality
		Moderately high Moderate (3)		low	Low spp dive disturbance	rsity and/or predominance of nonnative or a tolerant native species
		Moderately low Low (1) None (0)  Co. Coverage of invasive o Table 1 ORAM long for	plants, Refer	mod	although no can also be moderately	e dominant component of the vegetation, onnative and/or disturbance tolerant native spp present, and species diversity moderate to high, but generally w/o presence of rare or endangered spp
		or deduct points for covera  Extensive >75%  Moderate 25-75  Sparse 5-25% c	age cover (-5) % cover (-3) over (-1)	high	A predominar and/or distu absent, and	nce of native species, with nonnative spp rbance tolerant native spp absent or virtually high spp diversity and often, but not always, e of rare, threatened, or endangered spp
		Nearly absent < Absent (1)	5% cover (0)	Mudflata	nd Open Water C	Ince Quality
	6	d. Microtopography.		0	nd Open Water C Absent <0.1h	a (0.247 acres)
		core all present using 0 to		1		na (0.247 to 2.47 acres)
		o Vegetated humn		2	Moderate 1 to	<4ha (2.47 to 9.88 acres)
		O Coarse woody do	ebris >15cm (6in) 25cm (10in) dbh	.3	High 4ha (9.88	3 acres) or more
		Amphibian breed		Microtopo	graphy Cover Sc	ale
				0	Absent	
				1	of marginal o	
				2	quality or in a	derate amounts, but not of highest small amounts of highest quality
				3	Present in mod and of highes	lerate or greater amounts

End of Quantitative Rating. Complete Categorization Worksheets.

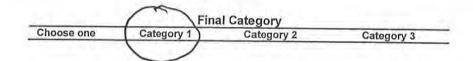
### **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered	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 (10)	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	
Nating	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	14	
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	Ô	
	Metric 6. Plant communities, interspersion, microtopography	-3	
	TOTAL SCORE	17	Category based on score breakpoints

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

## 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	6	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?	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 lydrologic OR habitat, OR excreational functions AND he wetland was not attegorized as a Category 2 retland (in the case of loderate functions) or a stategory 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	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
Affiliation:  MANNIK & SMITH GROUP  Address:
Addisoon 42.577
1800 INDIAN WOOD CIRCLE, MAUMEE, 01-1 43531  Phone Number: (419) 891-2222
Name of Wetland: 11M 157
Vegetation Communit(ies):
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE ATTACHED LOCATION MAP, FIGURE &
366 41/46/160 = 0 31 1 2 31 1 7 1 1 1 1 1 1 1 1 1
Lat/Long or UTM Coordinate 41. 33452, -82.79640
USGS Quad Name
County € RIE
TOWNSHIP BELLEVIEW TSN, RZYW
Section and Subsection
Hydrologic Unit Code 04/0001/0103
Site Visit 11-7-2018
National Wetland Inventory Map
Dhio Wetland Inventory Map
Soil Survey SOIL SURVEY OF ERIE COUNTY, OHIO
Delineation report/map  ATTACHED

letland Size (acre	WIM - 15 es, hectares):			
		• 20 with other surface waters	Vagatation zones etc	
			A STATE OF THE STA	
SEE ,	ATTACHED	WETLAND	DELINEATION	
MAP	FIGURE	4.		
				Y.
mments, Narrativ	e Discussion, Justifica	tion of Category Changes	<u>;</u>	
πments, Narratív	e Discussion, Justifica	tion of Category Changes		
mments, Narratív	e Discussion, Justifica	tion of Category Changes		
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mments, Narrativ	e Discussion, Justifica	tion of Category Changes		
mments, Narratív	e Discussion, Justifica	tion of Category Changes		
mments, Narrativ	e Discussion, Justifica	tion of Category Changes		

Category:

Final score :

34

### 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.

74	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.	YE 5	
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 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 ses		
1		Circle one		
	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).	at has ical Wetland should be cies? evaluated for possible d or Category 3 status at has ng plover Go to Question 2		
2	Threatened or Endangered Species. Is the wetland known to conta	in YES	NO)	
	an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Catego 3 wetland.		
3	Documented High Quality Wetland. Is the wetland on record in	Go to Question 3 YES		
	Natural Heritage Database as a high quality wetland?	Wetland is a Categor 3 wetland	y Go to Question 4	
1	Significant Breeding or Concentration Area. Does the wetland	Go to Question 4	-0	
	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	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	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	
$\dashv$	"Old Growth Forest." Is the wetland a forested wetland and is the	Go to Question 8a		
	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	

	1 1/20	ZNO.
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
		(NO)
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
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
the state of the s		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 denosition wetlands, estuarine wetlands, river mouth	Go to Question 9d	Go to Question 10
Door the wetland have a predominance of native species within its	YES	NO
vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
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)
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 comming 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 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
	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, 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, although non-native or disturbance tolerant native plant species within its vegetation communities?  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.  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	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 restaurine* 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?  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.  Rolict Wet Prairies. Is the wetland a result of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union evaluated for possible Category 3 status.) Compl

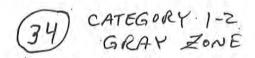
	Table 1.	Characteristic	plant s	pecies.
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invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ranunculus 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 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 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. 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.

	5.0 Field Form Quantitative Rating			
Site:	Rat	er(s):		Date:
0	subtotal first page  Metric 5. Special Wetla	ands.		
max 10 pts.	1 10		•	
	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlan Lake Erie coastal/tributary wetlan Lake Plain Sand Prairies (Oak Or Relict Wet Prairies (10) Known occurrence state/federal the	d-unrestricted derestricted hydrenings) (10)  nreatened or er er fowl habitat on 1 Qualitative	ndangered species (10) or usage (10) Pating (-10)	
G	34 Metric 6. Plant commun	nities, in	iterspersion, microto	pography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communities.	Vegetatio	n Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.247	
	Aquatic bed	1	Present and either comprises small	
	Emergent     Shrub	•	vegetation and is of moderate qui significant part but is of low qualit	
	7 Forest	2	Present and either comprises signif	
	Mudflats	2	vegetation and is of moderate qua	
	( Open water		part and is of high quality	my or comprises a small
	Other	· 3	Present and comprises significant p	ort or many of well-
		3		art, or more, or wettand's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	
	Select only one. High (5)	Marrativo I	Description of Vegetation Quality	
	Moderately high(4)	low	Low spp diversity and/or predominar	and of poppetition or
	Moderate (3)	1044	disturbance tolerant native species	
	Moderately low (2)	mod		
	Low (1)	mou	Native spp are dominant component	
	None (0)		although nonnative and/or disturba	
	6c. Coverage of invasive plants. Refer	•	can also be present, and species of moderately high, but generally w/o	
	to Table 1 ORAM long form for list. Add		threatened or endangered spp	presence of rare
	or deduct points for coverage	high	A predominance of native species, w	ith poppetite and
	Extensive >75% cover (-5)	mgn	and/or disturbance tolerant native s	
	Moderate 25-75% cover (-3)		absent, and high spp diversity and	
	Sparse 5-25% cover (-1)		the presence of rare, threatened, or	
	Nearly absent <5% cover (0)		the presence of rare, threatened, of	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 acre	<u></u>
	Coarse woody debris >15cm (6in)	. <del>3</del>	High 4ha (9.88 acres) or more	20)
	Standing dead >25cm (10in) dbh			
	Amphibian breeding pools	Microtopoar	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	
		3	Present in moderate or greater amount	·
,		1	and of highest quality	
	•			

End of Quantitative Rating. Complete Categorization Worksheets.



Site:	WII	4_	153		Rater(s):	JAF		Date: //	-7-201
		n	letric 1.	Wetland	Area (size)				(4)
		ШУ							
max 6 pts.	subtota	Se	elect one size cla	ass and assign so as (>20.2ha) (6 pa	ore.				
			25 to <5	0 acres (10.1 to -	:20.2ha) (5 pts)				
				5 acres (4 to <10 acres (1.2 to <4)					
			0.3 to <3	acres (0.12 to <	1.2ha) (2pts) .		+		
				0.3 acres (0.04 to es (0.04ha) (0 pts					
31	5	IV	letric 2.	Upland b	uffers and	surround	ling land use.		
nax 14,pts.	subtotal	$\rfloor_{2a}$	Calculate aver	age huffer width	Select only one an	d annian agers	Do not double about		
iax 14.pas.	disploid	Za	WIDE. E	Suffers average 5	Om (164ff) or more	around wetland p	Do not double check. erimeter (7)		
			MEDIUM	<ul> <li>Buffers averag</li> </ul>	e 25m to <50m (82	to <164ft) around	d wetland perimeter (4) and wetland perimeter (1)		
			VERY N	ARROW, Buffers	average <10m (<3	2ft) around wetla	nd perimeter (0)		
		26.	Intensity of sur	rounding land use DW. 2nd growth	e. Select one or do or older forest, prair	ouble check and a	average,		
			X LOW. O	d field (>10 years	), shrub land, youn	a second arowth	forest. (5)		
			MODERA HIGH, U	NTELY HIGH. Re	sidential, fenced pa pen pasture, row cr	isture, park, cons	ervation tillage, new fallov	v field. (3)	
		M	The second secon	lydrology		epping) mining)	onoutables. (1)		
12	(7	1		.,	7				
ax 30 pts.	subtotal	3a.	Sources of Wat	er. Score all that	apply.	3b.	Connectivity. Score all th		
				roundwater (5) undwater (3)			100 year floodplain Between stream/lal	(1) ce and other hi	iman use (1)
			➤ Precipitat	on (1)			Part of wetland/upla	and (e.g. forest)	); complex (1)
				'Intermittent surfa surface water (la		3d.	Part of riparian or u  Duration inundation/satura	pland corridor ( ation. Score or	(1) ne or dbl check
		30.			nly one and assign a	score.	Semi- to permanent	tly inundated/sa	aturated (4)
			>0.7 (27.6 0.4 to 0.7r	n (15.7 to 27.6in)	(2)		Regularly inundated Seasonally inundated		
		30	> <0.4m (<1		c regime. Score on	e or double chec	Seasonally saturate	d in upper 30cr	m (12in) (1)
		06.			Check all disturb		K and average.		7
			Recovered	(7)	ditch		point source (nonsto	mwater)	
		- 1	Recovering Recent or	g (3) no recovery (1)	tile dike		filling/grading road bed/RR track		
		,	1702307.37		welr		dredging		
-	-		3.1 1 1		stormwater		other		
9	26	Me	etric 4. H	labitat Alt	eration an	d Develo	oment.		
20 pts.	subtotal	4a.	Substrate disturb	ance. Score one	or double check ar	nd average.			
			None or no Recovered	ne apparent (4)			4	10 0	
	1		* Recovering	(2)					4.5
		45	Recent or r	o recovery (1)	one and assign sco				
		4D. [	Excellent (7	')	one and assign sco	re,			
		F	Very good (	6)					
			Good (5)  Moderately	good (4)	,		$\langle T \rangle$		
			Fair (3)					+	
			Poor to fair Poor (1)						*
		1c. H	abitat alteration.	IF.	uble check and ave				
			None or nor Recovered (	e apparent (9)	Check all disturban	ces observed	obetth/see Vision 1		
			Recovering	(3)	mowing grazing		shrub/sapling removal herbaceous/aquatic be	ed removal	
		Ę	Recent or no	recovery (1)	clearcutting		sedimentation	7 3 5 10 5 150	4 14 14
1	20				selective cutti woody debris	ng removal	dredging .  ✓ farming		
	al this page				toxic pollutant		nutrient enrichment		8
	of this hade			- 11			1.6	- 1	

## **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	4	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	Ò	
	Metric 6. Plant communities, interspersion, microtopography	Я	
	TOTAL SCORE	34	Category based on score breakpoints 1-2 GRAY Zo

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 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	160	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).
oderate functions) or a ategory 3 wetland (in the	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 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.

End of Ohio Rapid Assessment Method for Wetlands.



### **Background Information**

Name:  JOHN FREELAND
Date:
Affiliation:  MANNIK SMITH GROUP
Address: MAUNEE ALL 113537
Phone Number: (1)
Phone Number: (4/9) 89/- 2727 × 20/3  e-mail address:
JFREELAND MANNIKSMITHGROUP, COM
Name of Wetland: W/M156
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
USGS Quad Name  41. 06206 - 82. 82458
County
HURON
TOWNSHIP CENTERTON TIN, R24W
Section and Subsection /
Hydrologic Unit Code 04/0001/0805
Site Visit 11-7-2018
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil SURVEY OF HURON COUNTY, OH
Delineation report/map  ATT A CHE D

M-41 C' /	11M-156			
Name of Wetland:	tares):	0.46		
Sketch: Include north ar	row, relationship with	n other surface waters, ve	getation zones, etc.	
SEF AT	TACHED I	DETLAND	DELINEATION	
JCL AI	12101100		W = 1117 201 101 101 101 101	
MAP. F	IGURE	4.		
		C Y		
omments, Narrative Dis	cussion Justification	of Category Changes:		
Jillinonto, Harrativo Dio	sussion, eastmoution	or outagory onlanges.		

#### 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.	VES	
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.	45	
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
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	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	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	NO See to Question 8b

			1/
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES  Wetland should be evaluated for possible Category 3 status.  Go to Question 9a	Go to Question 9a
	L. U	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	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 10	NO Go to Question 9c
	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
9c	Are Lake Ene water levels the wetland's primary hydrological milecree, 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
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 tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES  Wetland should be evaluated for possible Category 3 status  Complete Quantitative Rating	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 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 buxbaumin. 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.

	Site:	WIT	L	156		Rater(s):	JAF		Date: /	1-7	- 20K
	2	2	M	etric 1.	Wetland A	Ārea (size).	,				*.
ļ	max 6 pts.	subtotal	ا Sel	lect one size o	lass and assign so	ore.		·			
				>50 ac 25 to < 10 to < 3 to <1	res (>20.2ha) (6 pt 50 acres (10.1 to < 25 acres (4 to <10. 0 acres (1.2 to <4h <3 acres (0.12 to < <0.3 acres (0.04 to	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) I.2ha) (2pts)		•			
		·	_		cres (0.04ha) (0 pts						
		3	M	etric 2.	Upland bu	uffers and	surround	ing land use.			
	max 14.pts.	subtotal		WIDE. MEDIU NARRO VERY Intensity of s VERY LOW. MODEI	Buffers average 50 M. Buffers average 50 W. Buffers average NARROW. Buffers urrounding land use 50 CoW. 2nd growth c Old field (>10 years RATELY HIGH. Re	Om (164ft) or more a e 25m to <50m (82 t ge 10m to <25m (32 average <10m (<32 e. Select one or do or older forest, prairie ), shrub land, young	round wetland per o <164ft) around the to <82ft) around the to <82ft) around the to <87ft around wetlar uble check and a per savannah, wild second growth the ture, park, conse	wetland perimeter (4) and wetland perimeter (1) and perimeter (0) verage. Ilife area, etc. (7) forest. (5) ervation tillage, new fallon	w field. (3)		
	11	14	M		Hydrology		0, 0,				
<b>L</b>	max 30 pts.	subtotal	3c.	High ph Other g Precipit Season Perenni Maximum wat >0.7 (27 0.4 to 0.  X <0.4m (	al/Intermittent surfa al surface water (la ter depth. Select or 7.6in) (3) 7m (15.7 to 27.6in) <15.7in) (1)	ce water (3) ke or stream) (5) nly one and assign s	3d. core.	Connectivity. Score all ti 100 year floodplair Between stream/la Part of wetland/up Part of riparian or of the control of the	n (1)  ke and other  land (e.g. fore  upland corride  ration. Score  ntly inundated  d/saturated (2)	est); comp or (1) one or db d/saturated 3)	olex (1) ol check. d (4)
				None or Recover	none apparent (12) ed (7)		nces observed	point source (nonst filling/grading road bed/RR track dredging other FIELD 1		ie.	
Γ	14	74	Me	etric 4.	Habitat Alt	teration an	d Develo	pment.		للبحد	
<u></u>	nax 20 pts.	subtotal	4a. \$	None or Recover Recover	none apparent (4) ed (3) ng (2)	e or double check ar	nd average.				· .
			4b. F	Habitat develo Excellen Very goo Good (5)	(7) d (6) ely good (4)	one and assign sco	re.				
			4c. H	Poor (1)	on. Score one or do	ouble check and ave	rage.	,			•
	Γ.			None or r Recovered Recoveri	none apparent (9) ed (6)	Check all disturbar mowing grazing clearcutting selective cutt	nces observed	shrub/sapling remov herbaceous/aquatic sedimentation dredging			· · .
	subto	tal this page				woody debris toxic pollutan		farming nutrient enrichment		-	
last	t revised 1	February	2001	jjm		•				<b>_</b>	

Site:	WI		56		er(s):	JAF	Date: //~7- /9
	28	page	÷				P.
0	28	Me	tric 5. S <sub>l</sub>	oecial Wetla	ınds.		
max 10 pts.		Check	Bog (10) Fen (10) Old growth f Mature fores Lake Erie co Lake Erie co	ited wetland (5) astal/tributary wetland astal/tributary wetland	d-unrestricted		
	Inc. 2	Mot	Relict Wet P Known occur Significant m Category 1 V	rrence state/federal th ligratory songbird/wat Vetland, See Questic	reatened or er fowl habita n 1 Qualitati	at or usage (10) ve Rating (-10)	
17 max 20 pts.	45 subtotal		etland Vegetation				on, microtopography.
nax 20 pts.	Suptotal		all present using		vegetat 0	ion Community Co	mprises <0.1ha (0.2471 acres) contiguous area
		2	Aquatic bed	0.0000000	1	Present and vegetation	either comprises small part of wetland's and is of moderate quality, or comprises a part but is of low quality
		2	Mudflats		2	Present and vegetation	either comprises significant part of wetland's and is of moderate quality or comprises a small of high quality
				w) Interspersion.	3		comprises significant part, or more, of wetland's and is of high quality
		Select c	nly one.		Manuative	Depositation of V	and the Overton
		*	High (5) Moderately hi Moderate (3)	gh(4)	low		rsity and/or predominance of nonnative or tolerant native species
			Moderately love Low (1) None (0) grage of invasive 1 ORAM long for		mod	although no can also be moderately	e dominant component of the vegetation, nnative and/or disturbance tolerant native spp present, and species diversity moderate to high, but generally w/o presence of rare or endangered spp
		or deduc	t points for cove Extensive >75 Moderate 25-7 Sparse 5-25%	% cover (-5) '5% cover (-3) cover (-1)	high	A predominan and/or distur absent, and	ce of native species, with nonnative spp rbance tolerant native spp absent or virtually high spp diversity and often, but not always, e of rare, threatened, or endangered spp
			Nearly absent	<5% cover (0)	Mudflot	and Onen Wester Cl	nan Overliter
		6d. Micr	Absent (1) otopography.		0	nd Open Water Cl Absent <0.1ha	
			present using 0	to 3 scale.	1		a (0.247 to 2.47 acres)
		2	Vegetated hum	mucks/tussucks	2	Moderate 1 to	<4ha (2.47 to 9.88 acres)
		2		debris >15cm (6in) >25cm (10in) dbh	3	High 4ha (9.88	acres) or more
		2	Amphibian bre		Microtopo	graphy Cover Sca	ale
					0	Absent	
4					1	of marginal q	
					2	quality or in s	erate amounts, but not of highest mall amounts of highest quality
					3	Present in mod	erate or greater amounts

45

End of Quantitative Rating. Complete Categorization Worksheets.

WIM-156

### **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 (10)	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 (NÓ)	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	
rtaung	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	11	
	Metric 4. Habitat	14	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	17	
	TOTAL SCORE	45	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	0	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?		(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.

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



### **Background Information**

(A)	JIM-157			
etland Size (acres, hectare	(s): 0,6	্র face waters, vegetation zones		
		DELINEAT	TON MAP,	
FIGURE 4				
	ion Justification of Categor	ry Changes:		
ments, Narrative Discussi	ion, sustification of Categor			
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#### Scoring Boundary Worksheet

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#	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.	429	

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
1	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	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	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
3	"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

		· · · · · · · · · · · · · · · · · · ·	V 11d
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
	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
	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 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
Эe	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	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	
	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 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 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.

Site: WIM -	157	Rater(	s): J4F		Date: 11-7-18			
max 6 pts. subtotal	Select one size class >50 acres 25 to <50 10 to <25 3 to <10 0.3 to <3 0.1 to <0.	Wetland Area (see see see see see (10.1 to <20.2ha) (5 pt see see (10.1 to <20.2ha) (5 pt see see (4 to <10.1ha) (4 pt see (1.2 to <4ha) (3 pt see (0.12 to <1.2ha) (2pt see (0.12 to <0.12ha) (10.12ha) (10.1	ts)		39			
max 14.pts. subtotal	Metric 2. L  2a. Calculate avera WIDE. B MEDIUM NARROV VERY NA 2b. Intensity of sun	<ul> <li>&lt;0.1 acres (0.04ha) (0 pts)</li> <li>Metric 2. Upland buffers and surrounding land use.</li> <li>2a. Calculate average buffer width. Select only one and assign score. Do not double check.</li> <li>WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)</li> <li>MEDIUM. Buffers average 25m to &lt;50m (82 to &lt;164ft) around wetland perimeter (4)</li> <li>NARROW. Buffers average 10m to &lt;25m (32ft to &lt;82ft) around wetland perimeter (1)</li> <li>VERY NARROW. Buffers average &lt;10m (&lt;32ft) around wetland perimeter (0)</li> <li>2b. Intensity of surrounding land use. Select one or double check and average.</li> <li>VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)</li> </ul>						
max 30 pts. subtotal	MODERA HIGH. Up Metric 3. h	er. Score all that apply. groundwater (5) undwater (3)	nced pasture, park, constructions, row cropping, mining	onservation tillage, new in graph of the construction. (1)  3b. Connectivity. Score 1000 year flood Between stream	all that apply.			
	Seasonal. Perennial 3c. Maximum water >0.7 (27.6 0.4 to 0.7) <0.4m ( </td <td>Intermittent surface water (3) surface water (lake or stream depth. Select only one and lin) (3) m (15.7 to 27.6in) (2) 5.7in) (1) natural hydrologic regime.</td> <td>n) (5) 3 assign score.</td> <td>Part of ripariar Bd. Duration inundation/ Semi- to perm Regularly inun Seasonally inun Seasonally sa heck and average.</td> <td>n or upland corridor (1) saturation. Score one or dbl check. anently inundated/saturated (4) idated/saturated (3) indated (2) turated in upper 30cm (12in) (1)</td>	Intermittent surface water (3) surface water (lake or stream depth. Select only one and lin) (3) m (15.7 to 27.6in) (2) 5.7in) (1) natural hydrologic regime.	n) (5) 3 assign score.	Part of ripariar Bd. Duration inundation/ Semi- to perm Regularly inun Seasonally inun Seasonally sa heck and average.	n or upland corridor (1) saturation. Score one or dbl check. anently inundated/saturated (4) idated/saturated (3) indated (2) turated in upper 30cm (12in) (1)			
11 24	1	g (3) no recovery (1) tile dik- yyei	e r rmwater input	filling/grading road bed/RR to dredging other	rack			
max 20 pts. subtotal	None or n Recovered Recoverin Recent or 4b. Habitat develop	g (Ź) no recovery (1) ment. Select only one and as	9,					
	Excellent Very good Good (5) Moderately Fair (3) Poor to fai Poor (1)	(6) / good (4)	cand average					
subtotal this parallast revised 1 Februar	None or no Recovered Recovering Recent or	one apparent (9)  (6) (3) (no recovery (1)  Check all (mov	disturbances observe ving	shrub/sapling r	uatic bed removal			

Site:	WIL	1157	Rat	er(s): J	AF	Date: // 7//
s	28 ubtotal first					
0	28	Metric 5. Spe	cial Wetla	inds.	NA	
max 10 pts.	aubtotal	Lake Erie coast Lake Plain Sand Relict Wet Prair Known occurrer Significant migra Category 1 Wet	st (10) I wetland (5) al/tributary wetland al/tributary wetland d Prairies (Oak Opies (10) noe state/federal tratory songbird/watland. See Questic	d-unrestricted h d-restricted hyd enings) (10) areatened or en er fowl habitat o on 1 Qualitative	rology (5) dangered species (10) or usage (10) Rating (-10)	
ax 20 pts.	39 subtotal	Metric 6. Plan  6a. Wetland Vegetation C				icrotopography.
- tra bia.	A SHELLING	Score all present using 0 to	onmunities. o 3 scale	Vegetation	Absent or comprises <0	.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent Shrub	o o oddio.	1	Present and either comp	orises small part of wetland's oderate quality, or comprises a
		7 Forest Mudflats Open water		2	Present and either comp vegetation and is of mo part and is of high qual	orises significant part of wetland's oderate quality or comprises a smal lity
		Other6b. horizontal (plan view) I	nterspersion.	3		significant part, or more, of wetland's
		Select only one. High (5)		Narrativo F	Description of Vegetation G	Disalle.
		Moderately high( Moderate (3)	277	low	Low spp diversity and/or disturbance tolerant na	predominance of nonnative or tive species
		Moderately low (2 Low (1) None (0)	2)	mod	although nonnative and	component of the vegetation, for disturbance tolerant native spp
		6c. Coverage of invasive p to Table 1 ORAM long form			moderately high, but ge threatened or endanger	nd species diversity moderate to enerally w/o presence of rare red spo
		or deduct points for coverage Extensive >75% of Moderate 25-75% Sparse 5-25% co	cover (-5) 5 cover (-3) ver (-1)	high	A predominance of native and/or disturbance toler absent, and high spp di	e species, with nonnative spp rant native spp absent or virtually versity and often, but not always, reatened, or endangered spp
		Nearly absent <59 Absent (1)	% cover (0)	Mudelatan		
		6d. Microtopography.		0	Open Water Class Quality Absent <0.1ha (0.247 acr	
		Score all present using 0 to	3 scale.	1	Low 0.1 to <1ha (0.247 to	2.47 acres)
		1 Vegetated hummi		2	Moderate 1 to <4ha (2.47	to 9.88 acres)
		1 Coarse woody del		3	High 4ha (9.88 acres) or n	nore
		Standing dead >2 Amphibian breeding			raphy Cover Scale	
9				1	Absent Present very small amoun of marginal quality	ts or if more common
				2	Present in moderate amou quality or in small amour	ints, but not of highest nts of highest quality
9	1			3	Present in moderate or gre and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

		circle answer or insert	Result
		score	Noodit
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	
Camy	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	1/	
	Metric 4. Habitat	1/	
	Metric 5. Special Wetland Communities		
	Metric 6. Plant communities, interspersion, microtopography	[[	
	TOTAL SCORE	39	Category based on score breakpoints  10 DIFIED CATEGORY

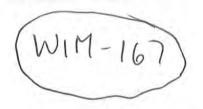
Complete Wetland Categorization Worksheet.

# 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	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
oDif		Wetland is assigned to the appropriate category based on the scoring range	(NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
	Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES  Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	(NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
	Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES  Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category						
Choose one	Category 1	Category 2	Category 3			

End of Ohio Rapid Assessment Method for Wetlands.



## **Background Information**

Name: JOHN FREELAND	
Date: 1-07-2019	
Affiliation: MANNIK SMITH GROUP	
Address:	
Phone Number: CIRCLE	
(419) 891-2222 x 2013	
e-mail address: if reeland @ manniksmit	haroup.cor
Name of Wetland: WIM - 167	J
Vegetation Communit(ies):	
HGM Class(es): DEPRESSIONAL	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
SEE FIGURE 3, ATTACHED REPO	ORT
0,	
	110000000000000000000000000000000000000
Lat/Long or UTM Coordinate 4/1. 0786 -82.8098	
USGS Quad Name	
County	
Township	
Section and Subsection	
Hydrologic Unit Code	
12-28-2018	
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey Sacr Santal Santal Carrier DH	
Delineation report/map  A TTACHED	
ATTACHED	

otobi Ingludo no	wind - /	with other cu	urface waters, vegetation zone	n ete	_
58	E FIGUR	€ 3,	ATTACHED	REPORT	
mments, Narrativ	e Discussion, Justifica	ation of Categ	gory 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.		
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.		
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		

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

#### Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <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	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES  Wetland is a Category 3 wetland.  Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES  Wetland is a Category 3 wetland  Go to Question 4	NO Go to Question 4
	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	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
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	NO 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 helpht (dbh), generally diameters greater than 45cm (17.7in) dbh?   Wetland should be evaluated for possible Category 3 status.   Go to Question 9a				
deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?  Ba 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?  Bo 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.  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?  9e Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities, although non-native or disturbance tolerant native plant species within its vegetation communities, although non-native or disturbance tolerant native plant species within its vegetation communities, although non-native or disturbance tolerant native plant species within its vegetation communities, although non-native or disturbance tolerant native plant species within its vegetation communities.  10 Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be evaluated for possible Category 3 status.  Go to Question 10  YES  NO  Wetland should be evaluated for possible Category 3 status.  Go to Question 10  YES  NO  Go to Question 10  YES  NO  Go to Question 10  YES  NO  Wetland should be evaluated f	8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of		NO
Section   Sect		deciduous trees with large diameters at breast height (dbh), generally	evaluated for possible	Go to Question 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?  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?  9c Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border afterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, setuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.  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?  9e Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?  10 Lake Plain Sand Prairies (Oak Openings) is 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.  11 Relict Wot 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), northwest Ohio (e.g.: Eric, Huron, Lucae, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wett etc.).			Go to Question 9a	
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, not hose 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, although non-native or disturbance tolerant native plant species within its vegetation communities?  Lake Plain Sand Prairies (Oak Openings) is the wetland be characterized by the following description: the wetland be characterized by the following description: the wetland be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.  11 Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wet etc.).	9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	NO
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.    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?    9e   Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native plant species within its vegetation communities?    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 i (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.    11   Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), orthwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).   Aveiland sh		an elevation less than 575 feet on the USGS map, adjacent to this	Co to Ouestion 9h	Go to Question 10
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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.  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?  9e Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?  9e Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?  10 Lake Plain Sand Prairies (Oak Openings) Is the wetland be characterized by the following description: 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.  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 (Myandot, 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 Wett etc.)				
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vegetation communities, although non-native or disturbance tolerant native species can also be present?  Wetland is a Category 3 wetland  Go to Question 10  YES  NO  Wetland should be evaluated for possible Category 3 status  Go to Question 10  YES  NO  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.  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), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).  Wetland should be evaluated for possible Category 3 wetland.  YES  NO  Wetland should be Wetland is a Category 3 wetland.  YES  NO  Complete Quantitative  Complete Quantitative		wetlands, or those dominated by submersed aquatic vegetation.	VES	NO
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tolerant native plant species within its vegetation communities?  Wetland should be evaluated for possible Category 3 status  Go to Question 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.  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 Wett etc.).  Wetland should be evaluated in A VES  Wetland is a Category 3 wetland.  Go to Question 11  YES  Wetland is a Category 3 wetland.  For to Question 11  YES  Wetland is a Category 3 wetland.  Wetland should be evaluated for possible Category 3 status  Complete Quantitative  Complete Quantitative	9e	Does the wetland have a predominance of non-native or disturbance		NO
20 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.  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.).  Relict Wet Prairies. Is the wetland a relict wet prairie community deviated for possible Category 3 status  Wetland is a Category 3 wetland.  Go to Question 11  YES  Wetland is a Category 3 wetland.  Go to Question 11  YES  NO  VES  NO  Complete Quantitative  Category 3 status  Complete Quantitative		tolerant native plant species within its vegetation communities?	Mattend about he	Co to Ougstion 10
Category 3 status  Go to Question 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.  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.).  Category 3 status  Wetland is a Category 3 wetland.  Go to Question 11  YES  Wetland is a Category 3 wetland.  Complete Quantitative				Go to Question to
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.  11 Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).  NO  Wetland is a Category 3 wetland.  Go to Question 11  YES  NO  Wetland should be evaluated for possible Category 3 status  Category 3 status  Complete Quantitative			Category 3 status	
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.  11 Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).  NO  Wetland is a Category 3 wetland.  Go to Question 11  YES  NO  Wetland should be evaluated for possible Category 3 status  Category 3 status  Complete Quantitative			0. 1. 0	
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.  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.).  Wetland is a Category 3 wetland.  Go to Question 11  YES  NO  Wetland should be evaluated for possible Category 3 status  Complete Quantitative  Rating		L. L. Di. Cond Desirios (Oak Openings) is the wotland located in		NO :
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.  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.).  Wetland is a Category 3 wetland.  Go to Question 11  YES  NO  Wetland should be evaluated for possible Category 3 status  Complete Quantitative  Rating	10	Lucas Fulton, Henry, or Wood Counties and can the wetland be	'-3	''
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.  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.).  Go to Question 11  YES  NO  Complete Quantitative Rating  Complete Quantitative		characterized by the following description: the wetland has a sandy		Go to Question 11
gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.  11 Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).  Go to Question 11  YES  NO  Complete Quantitative  Rating		substrate with interspersed organic matter, a water table often within	3 wetland.	
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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 Category 3 status Complete Quantitative	11		TEO	140
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.).  evaluated for possible Category 3 status Rating  Complete Quantitative		were formerly located in the Darby Plains (Madison and Union		
and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).  Complete Quantitative		Counties), Sandusky Plains (Wyandot, Crawford, and Marion		
Montgomery, Van Wert etc.). Complete Quantitative		Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Category 3 status	Rating
			Complete Quantitative	
		montgonior, ran viole desp.		

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 Rhunculus ficaria Typha angustifolia Typha xglauca	Zygadenus elegais 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	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 stricta Carex atherodes Carex buxbaumin Carex pellita Carex sartwellit 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:	WIA	1-167	Rater(s):	7,	AF	Date: /と~28 / 9
SI	2 \( \) ubtotal first page	<b>'</b>				
Ó	24	Vletric 5. Specia	Wetlands.			
max 10 pts.	subtotal C	heck all that apply and score a	s indicated.			
		Fen (10) Old growth forest (10) Mature forested wetla Lake Erie coastal/tribu Lake Erie coastal/tribu	nd (5) Itary wetland-unrestri	-		
		Lake Plain Sand Prair Relict Wet Prairies (10 Known occurrence sta	ies (Oak Openings) ( ))	10)		
		Significant migratory s	ongbird/water fowl ha	abitat or u	sage (10)	
9	3 7 1	Category 1 Wetland.  Metric 6. Plant c			erspersion, microto	pography.
max 20 pts.	subtotal 6	a. Wetland Vegetation Commu	nities. <b>Veg</b>	etation C	ommunity Cover Scale	
	S	core all present using 0 to 3 sc	ale.	0	Absent or comprises <0.1ha (0.24)	
		Aquatic bed		1	Present and either comprises sma vegetation and is of moderate qu	
		Emergent			significant part but is of low quali	•
		Forest		2	Present and either comprises signi	
		Mudflats			vegetation and is of moderate qu	
		Open water	****		part and is of high quality	
		Other	•	3	Present and comprises significant	part, or more, of wetland's
		<ul> <li>horizontal (plan view) Interselect only one.</li> </ul>	persion.		vegetation and is of high quality	
	36	High (5)	Narr	rative Des	scription of Vegetation Quality	
		Moderately high(4)		low	Low spp diversity and/or predomin	ance of nonnative or
		Moderate (3)	***********		disturbance tolerant native specie	
		Moderately low (2)		mod	Native spp are dominant compone	•
		Low (1) None (0)			although nonnative and/or disturt can also be present, and species	
	60	:. Coverage of invasive plants.	Refer		moderately high, but generally w	-
		Table 1 ORAM long form for li			threatened or endangered spp	•
	or	deduct points for coverage		high	A predominance of native species,	
		Extensive >75% cover			and/or disturbance tolerant native absent, and high spp diversity an	
		Moderate 25-75% cov Sparse 5-25% cover (-			the presence of rare, threatened,	<del>-</del>
		Nearly absent <5% co	· —		***************************************	
		Absent (1)	Mud	flat and (	Open Water Class Quality	
		. Microtopography.		0	Absent <0.1ha (0.247 acres)	
	So	ore all present using 0 to 3 sc		2	Low 0.1 to <1ha (0.247 to 2.47 acre Moderate 1 to <4ha (2.47 to 9.88 a	<del></del>
		Vegetated hummucks/ Coarse woody debris		3	High 4ha (9.88 acres) or more	
		Standing dead >25cm				<del> </del>
		Amphibian breeding po	ools <u>Micr</u>	otopogra	phy Cover Scale	
				0	Absent	
			•	1	Present very small amounts or if m of marginal quality	ore common
,				2	Present in moderate amounts, but	not of highest
				-	quality or in small amounts of high	
				3	Present in moderate or greater amo	ounts
				i	and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

Site:	WI	M-167	F	Rater(s):	JAF	Date	:12-28-18
max 6 pts.	subtotal	Select one size di >50 acr 25 to <5 10 to <2 3 to <10 0.3 to <	Wetland Ar ass and assign score. as (>20.2ha) (6 pts) 0 acres (10.1 to <20.: 5 acres (4 to <10.1ha acres (1.2 to <4ha) (6 3 acres (0.12 to <1.2h 0.3 acres (0.04 to <0. es (0.04ha) (0 pts)	2ha) (5 pts) ) (4 pts) 3 pts) a) (2pts)		33)	LATEGORY 1-2 GRAY ZONE
max 14.pts.	subtotal	Metric 2.  2a. Calculate ave WIDE. MEDIUM NARRO VERY N  2b. Intensity of su VERY LOW. Commoder	Upland buff rage buffer width. Se Buffers average 50m d. Buffers average 25 W. Buffers average 14 ARROW. Buffers average 17 rounding land use. DW. 2nd growth or or old field (>10 years), s ATELY HIGH. Resid	ect only one and as (164ft) or more arous in to <50m (82 to < 0m to <25m (32ft to age <10m (<32ft) is Select one or double der forest, prairie, shrub land, young se ential, fenced pastur	sign score. Do no nd wetland perime 164ft) around wetl o <82ft) around we around wetland pe e check and avera avannah, wildlife a cond growth fores e, park, conserva	of double check. eter (7) and perimeter (4) etland perimeter (1) rimeter (0) ge. area, etc. (7) t. (5) jon tillage, new fallow field. (6)	3)
9	14		Prban, industrial, oper Hydrology.	pasture, row cropp	ing, mining, consti	uction. (1)	V
max 30 pts.	subtotal	3c. Maximum wate >0.7 (27. 0.4 to 0.7 (27. 0.4 m) (3e. Modifications t	I/Intermittent surface I surface water (lake or depth. Select only 6in) (3) I'm (15.7 to 27.6in) (2) 15.7in) (1) o natural hydrologic renone apparent (12)	water (3) or stream) (5) one and assign scor	3d. Dura	nectivity. Score all that apply 100 year floodplain (1) Between stream/lake and a Part of wetland/upland (e.g. Part of riparian or upland cation inundation/saturation. Semi- to permanently inung Regularly inundated/satura Seasonally inundated (2) Seasonally saturated in up d average.	other human use (1) g, forest); complex (1) orridor (1). Score one or dbl check. dated/saturated (4) tted (3) per 30cm (12in) (1)
		Recoveri		tile dike weir stormwater inp	ut v	filling/grading road bed/RR track dredging other 120W CRO	*
O nex 20 pts.	Z Y	4a. Substrate disturble in None or in Recovering Recent of Ab. Habitat develop Good (5)  Moderate Fair (3) Poor to fair Poor (1)  4c. Habitat alteration	ng (2) no recovery (1) ment. Select only on (7) d (6) ly good (4) ir (2) n. Score one or dout	e and assign score.	average.		R WETUAN
subl	24 total this pag	None or n Recoverer Recoverin Recent or	one apparent (9) C	heck all disturbance mowing grazing clearcutting selective cutting woody debris re toxic pollutants	es observed	shrub/sapling removal herbaceous/aquatic bed ren sedimentation dredging farming nutrient enrichment	noval

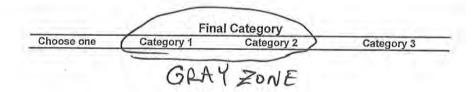
WIM-167

### **ORAM Summary Worksheet**

		circle	
		answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (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		
, taung	Metric 2. Buffers and surrounding land use	Ч	
	Metric 3. Hydrology	9	
	Metric 4. Habitat	. (0	
	Metric 5. Special Wetland Communities	O Brancounter	
	Metric 6. Plant communities, interspersion, microtopography	9	
	TOTAL SCORE	33	Category based on score breakpoints

Complete 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 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 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	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: KATIE SIMON
Date: 9120118
Affillation: MSG
Address: 1800 INDIAN WOOD CIRCLE, MAUMED, OHO
Phone Number: 419-891-2222 EXT, 2046
e-mail address: KSIMON @MANNICSMMHGROUP, COM
Name of Wetland: W2M-001
Vegetation Communit(ies): $(1)(a)(x)$
HGM Class(es): DEPRESSION
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE FIGURE 4.

		7 27 <b>64</b> 10 145 65
Lat/Long or UTM Coordinate	41.2938729, -827	55939
USGS Quad Name	Europi, b	BELLEVUE OH ERLE TON R244
County		ERIE
Township		T5N R24h
Section and Subsection		
Hydrologic Unit Code		-
Site Visit	<del>-</del> : .	9/20/18
National Wetland Inventory Map		F16.3
Ohio Wetland Inventory Map		F14.3
Soil Survey		F16.3 F16UKEZ F16.4
Delineation report/map		F16,4

Name of Wetland: W2M-00 (	
Wetland Size (acres, hectares):	N Olla Az
Sketch: Include north arrow, relationship with other surface waters, vegetation zones	0.016 AC.
SEE FIGURE 4	
see i initial	
	•
•	
	+
Comments, Narrative Discussion, Justification of Category Changes:	
MONE	
7.01.40	
	i
Final score: 155	Category:

#### Scoring Boundary Worksheet

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

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

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

#### **Narrative Rating**

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <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	
<u> </u>	<u> </u>		7
	Crifical Habitat. Is the welland 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	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 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	
l	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
	<u></u>	Go to Question 4	
l	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES ( Welland 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	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,	YES	NO )
	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%?	Welland is a Category 3 wetland	Go to Question 7
	For Life and	Go to Question 7	\\
•	Fons. 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 Welland is a Category 3 wetland Go to Question 8a	NO Go to Question 8
a	"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 Co to Question 8

		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	NO Go to Question 9a
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	NO NO
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Calegory 3 status	NO Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, l.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES  Wetland is a Category 3 wetland  Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES  Wetland is a Calegory 3 wetland.  Go to Question 11	NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Countles), 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	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arındinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellin
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhanınus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	· .	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina	•	Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		
	Solidago ohioensis	· -	•	•
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

toxic pollutants

nutrient enrichment

last revised 1 February 2001 jjm

Site:	F2	Acec		Rater(s):	6	IM	Date: 9/70/18
sı	15.5 ibloial first p	age					~2M-c
U	15.5	Metric	5. Special W	/etlands.			
max 10 pts.	subtotal	Book Fee Old Market Later Later Kn	at apply and score as inding (10) In (10) In (10) In growth forest (10) In ture forested wetland (the Erie coastal/tributary ke Erie coastal/tributary ke Plain Sand Prairies (Unict Wet Prairies (10) In own occurrence state/fectificant migratory songlitegory 1 Wetland. See	5) wetland-unrestr wetland-restrict Oak Openings) ( ederal threatened bird/water fowl h	ed hyd (10) d or en abitat c	rology (5) dangered species (10) or usage (10)	
	155	_				= ' '	icrotopography.
max 20 pts.	subtotal	I 6a. Wetland	Vegetation Communitie	s Ven	etatio	n Community Cover Scale	•
		Score all pres	sent using 0 to 3 scale. uatic bed nergent		0	Absent or comprises <0 Present and either com	0.1ha (0.2471 acres) contiguous area prises small part of wetland's noderate quality, or comprises a
		Shi				significant part but is	
	D	Mu Op	rest dflats en water		2	vegetation and is of me part and is of high qua	
		6b borizonts	ner al (plan view) Interspersi		3	•	significant part, or more, of wetland's
		Select only or		<u> </u>		vegetation and is of h	ign quality
			ıh (5)	Nan	rative I	Description of Vegetation	Quality
			derately high(4)	<del></del>	low	Low spp diversity and/o	r predominance of nonnative or
	^		derate (3)			disturbance tolerant n	
	0		derately low (2) v (1)		mod		at component of the vegetation,
			ne (0)			_	nd/or disturbance tolerant native spp and species diversity moderate to
		6c. Coverage	e of invasive plants. Re	fer			generally w/o presence of rare
			RAM long form for list. A	\dd		threatened or endang	ered spp
		·	nts for coverage ensive >75% cover (-5)		high	1	ve species, with nonnative spp
			derate 25-75% cover (-3)				erant native spp absent or virtually diversity and often, but not always,
	_1	—-4	arse 5-25% cover (-1)	-7			threatened, or endangered spp
	ł		arly absent <5% cover (	0)			
			sent (1)	Mud		d Open Water Class Qual	
		6d. Microtope	ograpny. sent using 0 to 3 scale.		_0 1	Absent <0.1ha (0.247 a	<del></del> _
			jetated hummucks/tussi	ucks	2	Low 0.1 to <1ha (0.247 Moderate 1 to <4ha (2.	<del></del>
	1		arse woody debris >15c		3	High 4ha (9.88 acres) o	
	1		nding dead >25cm (10ir phibian breeding pools	•		graphy Cover Scale	
					<u>0</u> 1	Absent	
				<u></u>	· .	Present very small amo of marginal quality	
					2		ounts, but not of highest ounts of highest quality
165					3	Present in moderate or and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

circle

sult

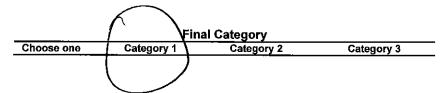
ory 3.

		answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES (NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (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	Ì	
	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	6	
	Metric 4. Habitat	65	
	Metric 5. Special Wetland Communities	O <sub>V</sub>	
	Metric 6. Plant communities, interspersion, microtopography	0	
	TOTAL SCORE	15.5	Category based on score breakpoints

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

## Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions:	YES Wetland is	NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the
Narrative Rating Nos. 2, 3,	categorized as a		category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional
4, 6, 7, 8a, 9d, 10	Category 3 wetland		assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions:	YES	MO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If
Narrative Rating Nos. 1, 8b, 9b, 9e, 11	Wetland should be evaluated for possible Category		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
	3 status		may also be used to determine the wetland's category.
Did you answer "Yes" to	YES	NO )	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold <i>(including</i> any gray zone)? If yes,
Narrative Rating No. 5	Wetland is		reevaluate the category of the wetland using the narrative
	categorized as a Category 1 wetland		criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has
	Category I Wetland		been under-categorized by the ORAM
Does the quantitative score ({ fall within the scoring range	YES )	NO	If the score of the wetland is located within the scoring
of a Category 1, 2, or 3	Wettand is		range for a particular category, the wetland should be assigned to that category. In all instances however, the
wetland?	assigned to the		narrative criteria described in OAC Rule 3745-1-54(C) can
	appropriate calegory based on		be used to clarify or change a categorization based on a quantitative score.
	the scoring range		-
Does the quantitative score fall with the "gray zone" for	YES	(NO)	Rater has the option of assigning the wetland to the higher
Category 1 or 2 or Category	Wetland is		of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g.
2 or 3 wetlands?	assigned to the		functional assessment, biological assessment, etc, and a
	higher of the two categories or	ı	consideration of the narrative criteria in OAC rule 3745-1-54(C).
	assigned to a		, 34(O).
	category based on detailed		
	assessments and		
	the narrative	$\overline{}$	
Does the wetland otherwise	criteria (	NO	A wetland may be undercategorized using this method, but
exhibit moderate OR superior	\	/	still exhibit one or more superior functions, e.g. a wetland's
nydrologic OR habitat, ÖR	Welland was	Welland is	biolic communities may be degraded by human activities,
recreational functions AND the wetland was not	undercategorized by this method. A	assigned to category as	but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca
categorized as a Category 2	written justification	determined	or regional significance, etc. In this circumstance, the
wetland (in the case of	for recategorization	by the	narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are
noderate functions) or a Category 3 welland (in the	should be provided on Background	ORAM.	controlling, and the under-categorization should be corrected. A written justification with supporting reasons or
case of superior functions) by his method?	Information Form		information for this determination should be provided.



**End of Ohio Rapid Assessment Method for Wetlands.** 

### Background Information

Name: KATTE SIMON
Date: 9120118
Affiliation: MSG
Address: 1800 INDIAN WOOD CIRCLE, MANNEE, OH 43537
Phone Number: 449-891-2222 EXT. 2046
e-mail address: KSIMON@ MANNIK SMTHGROUP, COM
Name of Wetland: W2M-003
Vegetation Communit(ies): (1)(a)(iv)
HGM Class(es): DEPRESSION
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
SEE FIGURE 4.

Lat/Long or UTM Coordinate 41.28545503, -82.75	D97#416/1
USGS Quad Name	BELLEVUE HURON TYN RZYW
County	HURON
Township	TYN RZYW
Section and Subsection	
Hydrologic Unit Code	04100012
Site Visit	9/20/18
National Wetland Inventory Map	F14.3
Ohio Wetland Inventory Map	P4.3
Soil Survey	F16. 2
Delineation report/map	F16.4

Name of Wetland: W2M-DO3		
Wetland Size (acres, hectares):		0.044
Sketch: Include north arrow, relationship with other surface waters, vegetation zon	es, etc.	10.17
SEE FIGURE 4		
Comments, Narrative Discussion, Justification of Category Changes:	-	
NONE		
		. ·
•		
		-
Final score: 62	Category:	

#### Scoring Boundary Worksheet

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

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

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

#### **Narrative Rating**

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <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.

ŧ	Question	Circle one	
	Critical Habitat. Is the wetland in a township, section, or subsection of	YES	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 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).	Go to Question 2	$\sim$
	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
	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	Go to Question 3 YES	NO South Constitute 4
		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	7 .
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrotogically 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	YES  Welland is a Category  1 wetland	NO Go to Question 6
	no vegetation?	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%?	Wetland is a Category 3 wetland	NO Go to Question 7
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	Go to Question 7	110
	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	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	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	Go to Question 9a
	<b>,</b>	Category 3 status.	
*		Go to Question 9a	n
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	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	Wetland should be	Go to Question 9c
	landward dikes or other hydrological controls?	evaluated for possible	
		Category 3 status	
	·	Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
* 6	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	"estuarine" wetland with lake and river influenced hydrology. These	Co to dacaron or	Oo to dassion to
	include sandbar deposition wetlands, estuarine wetlands, river mouth		
9d	wetlands, or those dominated by submersed aquatic vegetation.  Does the wetland have a predominance of native species within its	YES	NO NO
34	vegetation communities, although non-native or disturbance tolerant		
	native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		o welland	
		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	NO
	tolerant native plant species within its vegetation communities.	Wetland should be	Go to Question 10
		evaluated for possible Category 3 status	
		Category 5 status	
		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	YES	NO )
	characterized by the following description: the wetland has a sandy	Welland is a Category	Go to Question 11
	substrate with interspersed organic matter, a water table often 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	
	present). The Ohio Department of Natural Resources Division of		1
	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	YES /	NO
	dominated by some or all of the species in Table 1. Extensive prairies	Molland should be	Complete
	were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion	Wetland should be evaluated for possible	Quantitative
	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,	Complete Quantitative	
ĺ	Montgomery, Van Wert etc.).	Rating	
	<u></u>		

Table 1. Characteristic plant species

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	Quer can paramin	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium согутbоsит	-	Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		Donadago madeiiii
	Solidogo ohioensis	11)110 41)07 1110		-
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site:	138	2001	Rater(s):	ELM	Date: 9	120/18
T	N	Metric 1. Wetland A	rea (size).	,	WZM	-03
max 6 pts.	subiðtal Se	Select one size class and assign sco   Selection   S	) 0.2ha) (5 pts) ha) (4 pts) ) (3 pts) 2ha) (2pts)	ect		
14	NB	letric 2. Upland bu	ffers and s	urrounding	land use.	
maž 14 pts.	, ,	N. Calculate average buffer width.  WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth of LOW. Old field (>10 years) MODERATELY HIGH. Reserved.	m (164ft) or more an 25m to <50m (82 to e 10m to <25m (32ft average <10m (<32ft Select one or doul r older forest, prairie, , shrub land, young sidential, fenced pas	ound wetland perimete <164ft) around wetlar to <82ft) around wetl ) around wetland peri ole check and average savannah, wildlife are second growth forest. ture, park, conservation	er (7)  nd perimeter (4)  and perimeter (1)  meter (0)  e.  ea, etc. (7)  (5)  n tillage, new fallow field. (3)	
18	33 M	letric 3. Hydrology	•			
max 30 pts.		Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfar Perennial surface water (lal. Maximum water depth. Select on >0.7 (27.6in) (3)  0,4 to 0.7m (15.7 to 27.6in)	ce water (3) te or stream) (5) ly one and assign so	3d. Durati	ectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other hupart of wetland/upland (e.g. forest Part of riparian or upland corridor on inundation/saturation. Score of Semito permanently inundated/s Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 300	), complex (1) (1) ne or dbl check aturated (4)
	3e.	Modifications to natural hydrologi None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)		or double check and		
18	SIM	letric 4. Habitat Alt	eration and	d Developm	ent.	
max 20 pts.	<b>4</b> b.	Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or defined to the second selection of the second	one and assign sco	re. orage <u>.</u>		
_ sut	S\	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbated mowing grazing clearcutting selective cutting toxic pollutar	ing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment	

last revised 1 February 2001 jjm

Site:	F2	Accel	Rater(s):	E(	M	Date: 9/20/18
S	S) ubtotal first p	nge			`	W2M-
1)	SI	Metric 5. Special V	Vetlands.			
max 10 pts.	subtotal	Check all that apply and score as in Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (				
		Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies (	wetland-restricted	d hydrol		
		Relict Wet Prairies (10) Known occurrence state/fi Significant migratory song Category 1 Wetland. See	ederal threatened bird/water fowl hal	or enda bitat or i	usage (10)	
7	8	Metric 6. Plant con			•	microtopography.
max 20 pts.	subtotal	ı 6a. Wetland Vegetation Communitie	es. Vege	tation 0	Community Cover S	cale
		Score all present using 0 to 3 scale.		0		s <0.1ha (0.2471 acres) contiguous area
		Aquatic bed		1		comprises small part of wetland's
		Emergent			<b>I</b>	of moderate quality, or comprises a
		Shrub			significant part bu	
		Forest		2	Į.	comprises significant part of wetland's
		Mudflats			1	of moderate quality or comprises a small
		Open water			part and is of high	<u> </u>
		6b. horizontal (plan view) Interspers		3		ses significant part, or more, of wetland's
		Select only one.			vegetation and is	or nigh quality
		High (5)	Norra	stive De	scription of Vegetat	ion Ovolity
		Moderately high(4)	· · · · · · · · · · · · · · · · · · ·	low		nd/or predominance of nonnative or
		Moderate (3)	'	IOW	disturbance tolera	
		Moderately low (2)	<del></del>	nod		inant component of the vegetation,
		Low (1)	•	1100		e and/or disturbance tolerant native spp
		None (0)				nt, and species diversity moderate to
		6c. Coverage of invasive plants. Re	efer			out generally w/o presence of rare
		to Table 1 ORAM long form for list.			threatened or end	
		or deduct points for coverage		nigh		native species, with nonnative spp
		Extensive >75% cover (-5)		•	1 -	tolerant native spp absent or virtually
		Moderate 25-75% cover (-	3)			spp diversity and often, but not always,
		Sparse 5-25% cover (-1)				re, threatened, or endangered spp
		Nearly absent <5% cover	(0)			
		Absent (1)	Mudf	lat and	Open Water Class C	Quality
		6d. Microtopography.		0	Absent <0.1ha (0.2	47 acres)
		Score all present using 0 to 3 scale.		1	Low 0.1 to <1ha (0.2	247 to 2.47 acres)
		Vegetated hummucks/tuss		2	Moderate 1 to <4ha	(2.47 to 9.88 acres)
		Coarse woody debris >15d		3	High 4ha (9.88 acre	s) or more
		Standing dead >25cm (10i				
		Amphibian breeding pools	Micro		aphy Cover Scale	
				0	Absent	
				1		mounts or if more common
					of marginal quality	
				2		amounts, but not of highest
						amounts of highest quality
	I			3	Present in moderate	
CX I					and of highest qua	anty
70						

End of Quantitative Rating. Complete Categorization Worksheets.

Site: /	382°	0001, W2M-003	Rater(s): L,CI	<u> </u>	Date: 9/20/18
		Metric 1. Wetland A			
D	0	]	• •		
max 6 pts.	subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts			
		25 to <50 acres (10.1 to <2	0.2ha) (5 pls)		
		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	2ha) (2pts)	•	
		0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)		•	
		Metric 2. Upland bu		unding land use	
1 (1	11	processor opiana sa	ancis una sumo	anding land asc.	
max 14 pts.	subtotal	za. <u>Cąlcu</u> late average buffer width.	Select only one and assign so	core. Do not double check.	
	_	WIDE, Buffers average 50	m (164ft) or more around wet 25m to <50m (82 to <164ft) a		
				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 older forest, prairie, savanna	~	
	1	LOW. Old field (>10 years)	shrub land, young second g	rowth forest. (5)	
		MODERATELY HIGH. Res		<ul> <li>conservation tillage, new falloning, construction, (1)</li> </ul>	ow field. (3)
18	29	Metric 3. Hydrology		,	
max 30 pts.	subtotal	3a. Sources of Water. Score all that	apply.	3b. Connectivity. Score all	that apply.
		High pH groundwater (5)		100 year floodpla	in (1)
		Other groundwater (3)  Precipitation (1)			lake and other human use (1) pland (e.g. forest), complex (1)
		Seasonal/Intermittent surface		Part of riparian or	upland corridor (1)
		Perennial surface water (lat 3c. Maximum water depth. Select on			uration. Score one or dbl check. ently inundated/saturated (4)
		>0.7 (27.6in) (3)	-	Regularly inundat	ed/saturated (3)
		0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	(2)	Seasonally inunda	ated (2) ated in upper 30cm (12in) (1)
		3e. Modifications to natural hydrologic	regime. Score one or doubl		ted in apper 300m (12m) (1)
		None or none apparent (12)	Check all disturbances obs		
	12	Recovered (7) Recovering (3)	ditch	point source (nons	stormwater)
		Recent or no recovery (1)	dike	road bed/RR track	(
			weir	dredging	
			stormwater input	other	
18	47	Metric 4. Habitat Alt	eration and Dev	elopment.	
max 20 pts.	subtotal .	4a. Substrate disturbance. Score one	or double check and average	э.	
		None or none apparent (4) Recovered (3)		+	
	-	Recovering (2)			
		Recent or no recovery (1)  B. Habitat development. Select only	one and accion coore		
	_	Excellent (7)	one and assign score.		
	_	Very good (6)			
	<i></i>	Good (5) Moderately good (4)			
	_	Fair (3)			
		Poor to fair (2)			
	4	c. Habitat alteration. Score one or do	uble check and average.		<del>-·</del>
	$\circ$	None or none apparent (9)	Check all disturbances obse		
	9	Recovered (6) Recovering (3)	mowing grazing	shrub/sapling remo	
		Recent or no recovery (1)	clearcutting	sedimentation	
Ţ,	17	·	selective cutting	dredging farming	
			woody debris removal toxic pollutants	nutrient enrichment	· •
	al this page	. <u>L</u>	• • • • • • • • • • • • • • • • • • • •		
last revised 1 F	ebruary	2001 jjm			

Metric 5. Special Wetlands.  Check all that apply and score as indicated.    Seg (10)	Site: A382	000	1,	W2M-003 Rater	(s): K.SI	mor <del>v</del>	Date: 9/20/18
Check all that apply and score as indicated, Bog (10) Cld growth forest (10) Cld growth forest (10) Cld growth forest (10) Clake Eric coastal/hibutary wetfand-restricted hydrology (5) Lake Eric coastal/hibutary wetfand-restricted hydrology (6) Lake Eric coastal/hibutary wetfand-restricted hydrology (6) Lake Flein Sand Frairies (0ak) Cpanies (30) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland. See Question 1 Cualitative Rating (40) Carlegory 1 Wetland Vegetation Communities. Score all present active for wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality  2 Present and ellinor comprises significant part of wetland's vegetation and is of high quality  3 Present and ellinor comprises significant part of wetland's vegetation and is of high quality  4 Present and ellinor comprises significant part of wetland's vegetation and is of high quality  5 Porest Coverage of invasive plants. Refer to Table 1 OrfaM long form for fist. Add or deduct points for coverage  5 Description of Vegetation Quality  6 Description of Vegetation Quality  6 Description of Vegetation Quality  6 Description of Vegetation Quality of comprises a small part and is of high quality or presence of rare, breathered or disturbance tolerant native species.  6 Description of Vegetation Quality or presence	47 subtotal first p	Dage	·				` '
Bog (10) Fen (10) Old growth forest (10) Mature forested welland (5) Lake Eric coastal/tribulary wetland-nestricted hydrology (10) Lake Eric coastal/tribulary wetland-nestricted hydrology (5) Lake Plain Sand Prairies (Oak Openigs) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songhirdwater fowl habitat or usage (10) Category 1 Wetland. See Queetion 1 Qualitative Rating (-10)  Metric 6. Plant communities, interspersion, microtopography.  Wegatation Community Cover Scale Score all present using 0 to 3 scale. Aguatic bed Emergent Strub Strub Corest Muditat Open water Other Ot	0 47	M	etr	ic 5. Special Wetlan	ds.		
Fen (10)   Cold growth forest (10)   Matture forested welfand (5)   Lake Eric coastal/fitbulary wetland-unrestricted hydrology (10)   Lake Eric coastal/fitbulary wetland-restricted hydrology (6)   Lake Eric coastal/fitbulary wetland-restricted hydrology (7)   Relict Wet Prairies (10)   Re	max 10 pts. subtotal	Che	eck al			4	
Known occurrence state/federal threatened or endangered species (10)   Significant migratory songibir/dwater fowl habitat or usage (10)   Category i Wetland. See Question 1 Qualitative Raining (10)   Metric 6. Plant communities, interspersion, microtopography.   Galegory i Wetland. See Question 1 Qualitative Raining (10)   Galegory i Wetland. See Question 1 Qualitative Raining (10)   Galegory i Wetland. See Question 1 Qualitative Raining (10)   Galegory i Wetland. See Question 1 Qualitative Raining (10)   Galegory i Wetland. See Question 1 Qualitative Raining (10)   Galegory i Wetland. See Question 1 Qualitative Raining (10)   Galegory i Wetland. See Question 1 Quality Cover Scale   Galegory i Wetland. See Question 1 Quality Cover Scale     Question Community Cover Scale   Quality Comprises significant part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality, or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of high quality or comprises a significant part of wetland's vegetation and is of high quality or comprises a significant part of wetland's vegetation and is of high quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of high quality or comprises as anail part of wetland's vegetation and is of moderate quality or comprises as anail part of wetland's vegetation and is of	b			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	estricted hydrol		
Significant migratory songbirdwater fowl habitat or usage (10)   Category 1 Wetland. See Question 1 Qualitative Rating (-10)			-		stened or enda	ngorod apopios (40)	
Metric 6. Plant communities, interspersion, microtopography.  Sa. Welland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed Emergent Shrub  Forest Mudflats Open water Other Other Other  Shrub  Other Other Other  Shrub  Open water Other Other  Other  Shrub  Open water Other  Shrub  Open water Other  Shrub  Open water Other  Shrub  Open water Other  Other  Other  Shrub  Open water Other  Other  Shrub  Open water Other  Other  Shrub  Open water Other  Other  Other  Other  Other  Other  Shrub  Open water Other				Significant migratory songbird/water	fowl habitat or i	usage (10)	
Vegetation Community Cover Scale  Score all present using 0 to 3 scale.  Aquatic bed Emergent Shrub Shrub Shrub Shrub Shrub Open water Other Other Shrub Other Shrub Open water Other Other Select only one.  High (5) Moderately high(4) Moderately high(4) Moderately high(4) Moderately high (9) None (0) Sc. Coverage of Invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-1) Nearly absent -55% cover (0) Nesrly absent -55% cover (0) Nesrly absent -55% cover (0) Sparse 5-25% cover (1) Nearly absent -55% cover (0) Sparse 5-25% cover (1) Nearly absent -55% cover (0) Standing dead 2-25cm (10in) dbh Amphibian breeding pools  Vegetation Community Cover Scale  1 Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality.  Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises as significant part of wetland's vegetation and is of flight quality or comprises as fight and is of moderate quality.  Narrative Description of Vegetation Quality  Iow Low spp diversity andore predominance of nonnative or disturbance tolerant native spp and or deduct and species with a preve	<del></del>	٦	Ļ	-	•		_
Score all present using 0 to 3 scale.  Aquatic bet Emergent Shrub  Forest Shrub  Open water Other Othe	6 53	╛					pography.
Aqualic bed Emergent Shrub Shrub  Forest Mudflats Open water Other_ Other_ Other_ Moderately high (4) Moderately low (2) Low (1) None (0)  6c. Coverage of Invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-0) Sparse 5-25% cover (-1) Noary Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Olaber (1) Standing dead >25cm (10in) dbh Amphibian breeding pools  1 Present and either comprises small part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of high quality  2 Present and comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of moderate quality or comprises a small part and is of high quality.  Present and is of high quality or comprises as mall part and is of high quality or comprises as mall part and is of high quality or comprises as mall part and is of high quality or comprises as mall part and is of high quality or comprises as mall part and is of high quality or comprises as mall part and is of high quality or comprises as mall part and is of high quality or comprises as mall part and is of high quality or co	max 20 pts, sublotal			-			174 \ 11-11-11
Shrub Forest Mudflats Open water Other Other High (5) Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover (0) Absent (1) Soroe all present using 0 to 3 scale.  O Vegetated hummucks/fussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Vegetation and is of moderate quality, or comprises a significant part of wetland's vegetation and is of inging nation is of moderate quality or comprises a significant part to if wetland's vegetation and is of moderate quality or comprises a significant part to flow elitand's vegetation and is of moderate quality or comprises a significant part to if wetland's vegetation and is of moderate quality or comprises a significant part to if wetland's vegetation and is of moderate quality or comprises a significant part to if wetland's vegetation and is of moderate quality or comprises a smail part and is of moderate quality or comprises a smail part and is of moderate quality or comprises a smail part and is of ingh quality  Narrative Description of Vegetation Quality  Narrative Description of Vegetation Quality  Native spp arity and/or predominance of nonnative or disturbance tolerant native species wegetation, although nonnative and/or disturbance tolerant native species with nonative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Mudflat and Open Water Class Quality  Mudflat and Open Water Class Quality  Microtopography Cover Scale  Microtopography Cover Scale  Present in moderate quality  Present in and is of inging rative plants. Significant part or welland's vegetation and is		000					
Shrub   Significant part but is of low quality   Present and either comprises significant part of weltand's vegetation and is of moderate quality or comprises a small part and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part of weltand's vegetation and is of high quality   Present and either comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality   Present and comprises significant part, or more, of weltand's vegetation and is of high quality or comprises significant part, or more, of weltand's vegetated numbers a small part of weltand's vegetated numbers a small part and is of high quality or comprises significant part, or more, of weltand's vegetated numbers a small part of weltand's vegetated numbers a sm				4 ·	•	•	=
Mudflats Open water Other Othe				Shrub			
Open water Other Select only one. High (5) Moderately high(4) Moderately high(4) Moderately low (2) Low (1) None (0) Gc. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Gd. Microtopography. Score all present using 0 to 3 scale. Coarse woody debris- 15cm (6in) Standing dead >25cm (10in) dbh Amphiblan breeding pools  Description of Vegetation Quality Low spp diversity and/or predominance of nonnative or disturbance tolerant native species mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally wo presence of rare threatened or endangered spp Approximately high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Mudflat and Open Water Class Quality  O Absent (0,1ha (0,247 to 2,47 acres)  1 Low 0.1 to <1ha (0,247 to 2,47 acres) 2 Moderate 1 to <4ha (2,47 to 9,88 acres)  Microtopography Cover Scale  O Absent  1 Present in moderate amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality or in small amounts of highest quality	(		0		2	Present and either comprises sign	nificant part of wetland's
Other 6b. horizontal (plan view) Interspersion. Select only one.  High (5) Moderately high(4) Moderately low (2) Low (1) None (0) Co. Coverage of Invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent 45% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Ocarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Microtopography Cover Scale  Migh and comprises significant part, or more, of welland's vegetation and is of high quality  Naturative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative 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  Appendix present using 0 to 3 scale.  Mudflat and Open Water Class Quality  Microtopography Cover Scale  Migh 4ha (9.88 acres) or more  Microtopography Cover Scale  Appendix present and comprises significant part, or more, of welland's vegetation and is of high est quality						•	uality or comprises a small
Vegetation and is of high quality   Vegetation and is of high quality				, ,			
Select only one.  High (5)  Moderately high(4)  Moderately low (2)  Low (1)  None (0)  6c. Coverage of Invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  Degetated hummucks/fussucks Coarse woody debris >15cm (6in)  Standing dead >25cm (10in) dbh  The present very small amounts or if more common of marginal quality  Present in moderate quality  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative or disturbance tolerant native spp species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species diversity and/or disturbance tolerant native spp and species diversity and often or moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species diversity and/or disturbance tolerant native spp and species diversity and often or moderately high, but generally w/o presence of rare threatened or endangered spp  A predominance of native species.  I but dead or deduct points for coversity and/or disturbance tolerant native spp and/or disturbance tolerant nativ		6h	horiz		3		
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Moderately high(4)   Moderate (3)   Moderately low (2)   Low (1)   None (0)   None (0)   Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage   Extensive >75% cover (-5)   Moderate 25-75% cover (-5)   Moderate 25-75% cover (-1)   Nearly absent <5% cover (0)   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   Microtopography Cover Scale   O Absent   Present very small amounts of highest quality or in small amounts of highest quality   Present in moderate amounts, but not of highest quality   Present in moderate amounts of highest quality   Present very small amounts of highest   Present very sm		-	0.0	1.	Narrative De	scription of Vegetation Quality	
Moderate (3)   Moderate lolerant native species   Moderate ly low (2)   Low (1)   None (0)   Altive spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   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   A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   A predominance of native species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp   A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance for a favouries species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance tolerant native spp and/or disturbance for and/or d							nance of nonnative or
Low (1) None (0) 6c. Coverage of Irivasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)  6d. Microtopography. Score all present using 0 to 3 scale.  Degrated hummucks/tussucks Coarse woody debris > 15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Amphibian breeding pools  although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp  high A predominance of native species, with nonnative spp and/or disturbance tolerant native spp and/or disturbance						I	
None (0)   Sc. Coverage of Irivasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage   Extensive >75% cover (-5)   Moderate 25-75% cover (-3)   Sparse 5-25% cover (-1)   Nearly absent <5% cover (0)   Microtopography. Score all present using 0 to 3 scale.   Output of the present using 0 dead >25cm (10in) dbh   Amphibian breeding pools   Amphibian breeding pools   Output of the present using 0 to 3 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of the present using 0 to 4 scale   Output of		_ :	<u> </u>		mod	Native spp are dominant compone	ent of the vegetation,
6c. Coverage of Irivasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)		$\bigcirc$		, ,		_	
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  Microtopography Cover Scale  O Absent  1 Present very small amounts or if more common of marginal quality  1 Present in moderate amounts, but not of highest quality		0-					
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  Microtopography Cover Scale  Microtopography Cover Scale  Microtopography Cover Scale  Microtopography Cover Scale  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality		bc.	Cove	rage of invasive plants. Refer			/o presence of rare
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  Microtopography Cover Scale  Microtopography Cover Scale  Negetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Negetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Negetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Negetated hummucks/tussucks  Amphibian breeding pools  Microtopography Cover Scale  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality or in small amounts of highest quality					- Link		
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  Microtopography Cover Scale  Microtopography Cover Scale  Microtopography Cover Scale  Absent  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality or in small amounts of highest quality		01 00			nign	I	
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  Microtopography Cover Scale    D			$\neg$				
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  Microtopography Cover Scale  Microtopography Cover Scale  Microtopography Cover Scale  Description Absent  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality		,		` '			
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  Microtopography Cover Scale  0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality		\				<u> </u>	, or ornearing or out app
Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality		`	X		Mudflat and	Open Water Class Quality	
Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Description Absent Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality					0	Absent <0.1ha (0.247 acres)	
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Description  Absent  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality		Scor					
Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  O Absent  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality or in small amounts of highest quality							acres)
Amphibian breeding pools    Microtopography Cover Scale	<i>F</i>	5 l	_			High 4ha (9.88 acres) or more	
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	_	/			Microtopoge	enhy Cover Scale	
Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest quality or in small amounts of highest quality		1	ىت	antibulan breeding pools			<del></del>
of marginal quality  Present in moderate amounts, but not of highest quality or in small amounts of highest quality							nore common
Present in moderate amounts, but not of highest quality or in small amounts of highest quality					•		.s.s squimon
quality or in small amounts of highest quality				•	2		not of highest
Present in moderate or greater amounts					3	Present in moderate or greater am	ounts

End of Quantitative Rating. Complete Categorization Worksheets.

W2M-003

### **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO	If yes, Category 3.
· · · · · · · · · · · · · · · · · · ·	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	9	
·	Metric 4. Habitat	18	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	V	
,	TOTAL SCORE	53	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

W2M-003

### **Wetland Categorization Worksheet**

Choices	Circle one	7	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions:	YES Wetland is	NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the
Norrolivo Poting No. 2 2		-	category of the wetland using the narrative criteria in OAC
Narralive Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	categorized as a		Rule 3745-1-54(C) and biological and/or functional
	Category 3 wetland		assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions:	YES	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If
N. 8 B. 1 4 6	Welland should be	1 .	the wetland is determined to be a Category 3 wetland using
Narrative Rating Nos. 1, 8b,	evaluated for	1	either of these, it should be categorized as a Category 3
9b, 9e, 11	possible Category		wetland. Detailed biological and/or functional assessments
	3 status	4	may also be used to determine the wetland's category.
Did you answer "Yes" to	YES	NO )	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (including any gray zone)? If yes,
Narrative Rating No. 5	Wetland is		reevaluate the category of the wetland using the narrative
	categorized as a	Ì	criteria in OAC Rule 3745-1-54(C) and biological and/or
/	Category 1 wetland		functional assessments to determine if the wetland has
		<u> </u>	been under-categorized by the ORAM
Does the quantitative score	YES	NO	If the score of the wetland is located within the scoring
fall within the scoring range \			range for a particular category, the wetland should be
of a Category 1, 2, or 3	Wetland is		assigned to that category. In all instances however, the
wetland?	assigned to the		narrative criteria described in OAC Rule 3745-1-54(C) can
	appropriate	l	be used to clarify or change a categorization based on a
	category based on	/ \ \	quantitative score.
Door the growthether areas	the scoring range	\ \ \	
Does the quantitative score fall with the "gray zone" for	YES	NO )	Rater has the option of assigning the welland to the higher
Category 1 or 2 or Category	Welland is		of the two categories or to assign a category based on the
2 or 3 wetlands?	assigned to the		results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a
2 0/ 5 Wellands?	higher of the two		consideration of the narrative criteria in OAC rule 3745-1-
	categories or	ļ	54(C).
	assigned to a		34(0).
	category based on		·
	detailed		
	assessments and		
	the narrative	$\times$	
	criteria (	ľ	
Does the wetland otherwise	YES	NO /	A wetland may be undercategorized using this method, but
exhibit moderate OR superior	ļ	· /	still exhibit one or more superior functions, e.g. a wetland's
hydrologic OR habitat, ÖR	Wetland was	Wetland is	blotic communities may be degraded by human activities,
recreational functions AND	undercategorized	assigned to	but the wetland may still exhibit superior hydrologic
the wetland was not	by this method. A	category as	functions because of its type, landscape position, size, local
categorized as a Category 2	written justification	determined	or regional significance, etc. In this circumstance, the
wetland (In the case of	for recategorization	by the	narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are
moderate functions) or a	should be provided	ORAM.	controlling, and the under-categorization should be
Category 3 wetland (in the	on Background		corrected. A written justification with supporting reasons or
case of superior functions) by	Information Form		information for this determination should be provided.
his method?			
		,	

End of Ohio Rapid Assessment Method for Wetlands.

## **Background Information**

Name: KATIE SIMON
Date: /2/7//8
Affiliation: THE MANNIK + SMITH GRAP, INC
Address: 1800 INDIAN WOOD CIRCLE MAUNEE, OH 43537
Phone Number: 419 - 891 - 2222 ext 2046
e-mail address: KSIMON @ Mannik smith grap com
Name of Wetland: W2M-004
Vegetation Communit(ies):
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Lat/Long or UTM Coordinate 41.2852, -82.7364
USGS Quad Name KIMBALL
County HURON
Township TYN R23W
Section and Subsection
Hydrologic Unit Code 041 000 12 05 05
Site Visit 9/:12/18
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey
Delineation report/map

Name of Wetland:	WZM-004		
Wetland Size (acres, hecta		0-12226	
Sketch: Include north arro	see Figure	tters, vegetation zones, etc.	
Comments, Narrative Discu	ission, Justification of Category Cha		
Final score :	36	Category:	Mod. 2

#### Scoring Boundary Worksheet

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

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

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
	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	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	NO Go to Question 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	10 mg	
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
of the street, the same and the street of	Go to Question 9a	
Lake Eric coastal and tributary wetlands. Is the wetland located at		(NO)
an elevation less than 575 feet on the USGS map, adjacent to this	1.20	
elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	NO Go to Question 90
	1170 20 1270 - 7420 - 17 1330 1322 2	
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
Does the wetland have a predominance of native species within its	YES	NO
vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
	Go to Question 10	
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
	Co to Ougetion 10	an .
Lake Blain Sand Braining (Cak Openings) is the wetland located in		MO)
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		~
Relict Wet Prairies Is the wetland a relict wet prairie community	YES	NO
dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Wetland should be evaluated for possible Category 3 status	Complete Quantitative Rating
	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?  Lake Plain Sand Prairies (Oak Openings) Is 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.  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), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	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 plant species within its vegetation communities, although non-native or disturbance tolerant native plant species within its vegetation communities?  Wetland is a Category 3 wetland  Go to Question 10  YES  Wetland is a Category 3 wetland be characterized by the following description: 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.  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 Unio).  Are take Erie coastal and trouble deveload to the evaluated

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 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 echinata Carex oligosperma Carex oligosperma 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 atherodes Carex buxbaumi. Carex pellita. 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.

Site:	Rate	r(s):	Date:
Subtotal	first page		
03	Metric 5. Special Wetla	nds.	
mex 10 pts. sub	Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland Lake Erie coastal/tributary wetland Lake Plain Sand Prairies (Oak Ope Relict Wet Prairies (10) Known occurrence state/federal thr Significant migratory songbird/wate Category 1 Wetland. See Question	restricted hydr enings) (10) reatened or end er fowl habitat on 1 Qualitative	dangered species (10) or usage (10) Rating (-10)
0 3	10	iities, in	terspersion, microtopography.
nax 20 pts. subt	od. Fredario regetation continues.	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  6b. horizontal (plan view) Interspersion. Select only one.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)	Narrative I	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) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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)	Middlet	d O W-t Ol O W-
	6d. Microtopography.	0	d 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 acres)
	Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	O 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
		0	Absent
		11	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
01		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	
rading	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	0	
	TOTAL SCORE	36	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

# Wetland Categorization Worksheet

Choices	Circle one	~	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions:  Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES  Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the <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 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	Wetfand is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	_
Choose one Category 1 / Category 2 Category 2	ory 3

End of Ohio Rapid Assessment Method for Wetlands.

# **Background Information**

Name:	KATIE SIMON	
Date:	12/7/18	
Affiliation:	THE MANNIK + SMITH BROUP INC	
Address:	1900 INDIAN WOOD CIRCLE MAUNTE, OH	435
Phone Number:	419-891-2222 ext 2016	
e-mail address:	KSIMON @ Marriksmithgrap - com	
Name of Wetlan	d: WZM-006	
Vegetation Communit(i		
HGM Class(es):	Lonressianal	
Location of Wetland: in	clude map, address, north arrow, landmarks, distances, roads, etc.	
Lat/Long or UTM Coordin	ate 41.2825, -82.7330	
USGS Quad Name	KIMBALL	
County	HURON	- 1
Township	TUN, 223W	
Section and Subsection		
Hydrologic Unit Code	04100012 05 05	
Site Visit	9/12/18	
National Wetland Invento	ry Map	
Ohio Wetland Inventory N	1ap	
Soil Survey		
Delineation report/map		

Name of Wetland:	WZM-006	
Wetland Size (acres, he	ectares):	10.436 26
Sketch: Include north a	rrow, relationship with other surface waters, vege	etation zones, etc.
	See Figure 4	
	See trigure 9	
mments, Narrauve Di	scussion, Justification 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.		
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.	J	
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.	J	
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.	V	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	J	
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.	V	

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
	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	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 50% or more of the cover of upper forest canopy consisting of	YES	MO
	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	YES	(NO)
01	elevation, or along a tributary to Lake Erie that is accessible to fish?  Does the wetland's hydrology result from measures designed to	Go to Question 9b YES	Go to Question 10
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, 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	NO Go to Question 10
	wellands, or those dominated by submersed aquatic vegetation.	YES	NO
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	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	-
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be	Wetland is a Category 3 wetland.  Go to Question 11	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.	OU to Guestion 11	
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO
	dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Wetland should be evaluated for possible Category 3 status	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 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. Lobelta 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 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 Gentiana andrewsi Helianthus grosseserratu Liatris spicate Lysimachia quadriflore Lythrum alatum Pycnanthemum virginianum Silphium terebinthinaceun Sorghastrum nuani Spartina pectinate Solidago riddelli

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

Site:	A3820001	Rater(s):	ELM	Date: 9/20//8
7_	2 Metric 1. Wetl	and Area (size)		
max 6 pts.	10 to <25 acres (			
	0.3 to <3 acres (0 0.1 to <0.3 acres <0.1 acres (0.04)	0.12 to <1.2ha) (2pts) (0.04 to <0.12ha) (1 pt) na) (0 pts)		
14	Metric 2. Upla	nd buffers and	surrounding la	nd use.
max 14 pts.	WIDE. Buffers a MEDIUM. Buffer NARROW. Buffer VERY NARROW  2b. Intensity of surrounding VERY LOW. 2nd LOW. Old field ( MODERATELY H HIGH. Urban, in-	verage 50m (164ft) or more s average 25m to <50m (82 ers average 10m to <25m (5 . Buffers average <10m (<5 g land use. Select one or d d growth or older forest, prai >10 years), shrub land, your HGH. Residential, fenced p dustrial, open pasture, row o	rie, savannah, wildlife area, e	erimeter (4) perimeter (1) pr (0) tc. (7) age, new fallow field, (3)
10	32 Metric 3. Hydr	ology.		
max 30 pts,	3c. Maximum water depth.  >0,7 (27.6in) (3)  0.4 to 0.7m (15.7in)	rater (5) er (3)  Ittent surface water (3) e water (lake or stream) (5) Select only one and assign to 27.6in) (2)	3d. Duration in score.	ity. Score all that apply. year floodplain (1) ween stream/lake and other human use (1) t of wetland/upland (e.g. forest), complex (1 t of riparian or upland corridor (1) nundation/saturation. Score one or dbl che ni- to permanently inundated/saturated (4) ullarly inundated/saturated (3) sonally inundated (2) sonally saturated in upper 30cm (12in) (1)
	None or none ap Recovered (7) Recovering (3) Recent or no reco	parent (12) Check all disturble ditch tile	fillin road dred	nt source (nonstormwater) g/grading d bed/RR track dging
12	uu Metric 4. Habi		nd Developmen	
max 20 pts.	subtotal 4a. Substrate disturbance. None or none ap Recovered (3) Recovering (2)	Score one or double check parent (4)	and average.	
	4b. Habitat development.  Excellent (7)  Very good (6)	overy (1) Select only one and assign :	score,	
	Good (5) Moderately good Fair (3) Poor to fair (2) Poor (1)	(4)		
	4c. Habitat alteration. Sco	re one or double check and	averagebances observed	
ı	None or none apple Recovered (6) Recovering (3) Recent or no reco	mowing grazing clearcuttli selective	shru herb ng sedi	ib/sapling removal paceous/aquatic bed removal mentation dging
	79	toxic polls		ient enrichment

Site:	Rat	er(s):	Date:
subtots	il first page		
0	م∖ Metric 5. Special Wetla	ands.	
nax 10 pts. su	Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetlan Lake Erie coastal/tributary wetlan Lake Plain Sand Prairies (Oak Operation of the companion of the coastal/tributary wetlant Significant migratory songbird/wa	id-unrestricted hy id-restricted hydr penings) (10) hreatened or end	dangered species (10)
	Category 1 Wetland. See Questi	on 1 Qualitative I	Rating (-10)
3 4 ex 20 pts. sut			terspersion, microtopography.
ix 20 bis. Sui	ototal 6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation	Community Cover Scale Absent or comprises <0.1ha (0.2471 acres) contiquous 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
	Other6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	Select only one.		dativis die wiede me
	High (5) 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) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	<ul> <li>✓ Vegetated hummucks/tussucks</li> <li>✓ Coarse woody debris &gt;15cm (6in)</li> </ul>	3	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Standing dead >25cm (10in) dbh	75.570 0	High 4ha (9.88 acres) or more
	Amphibian breeding pools		raphy Cover Scale
		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
		3	Present in moderate or greater amounts

j

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	
ridanig	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	12	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	3	
	TOTAL SCORE	47	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

# 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	(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	(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 using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES  Wetland is categorized as a Category 1 wetland	10	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES  Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	(NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR ecreational functions AND he wetland was not categorized 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?	Welland 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:	KATIE SIMON	
Date:	12/7/18	
Affiliation:	THE MANNIK + SAITH GROUP IN	C
Address:  80		43537
Phone Number:	419-891-2222 Oct 2046	
e-mail address:	KSIMON @ Manniksmith group com	7
Name of Wetlan	id: W2M-009	
Vegetation Communit(ie		
HGM Class(es):	depressional	
Lat/Long or UTM Coordina	U1. 7332, -82.8104	
USGS Quad Name	FLAT ROCK	
County	HULON	
Township	TYN RZYW	
Section and Subsection		
Hydrologic Unit Code	04100012 05 05	
Site Visit	9/13/18	
National Wetland Inventor		
Ohio Wetland Inventory M	Лар	
Soil Survey		
Delineation report/map		

Name of Wetland:	1.3200-009	
Wetland Size (acres, hecta	WZM-009	
	w, relationship with other surface waters, vegetation zones, etc.	
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s	
	See Figure 4	
	See traure 7	
omments, Narrative Discus	ssion, Justification of Category Changes:	
	And the state of t	
		1. 1
inal score :	Catagory	Mod

#### 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.	1	
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.	1	
Step 3	Defineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	¥	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	1	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	V	
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.	V	

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	17.57.
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 2	Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES  Wetland is a Category 3 wetland  Go to Question 4	Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES  Wetland is a Category 3 wetland  Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
	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
Ba	"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)
	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	NO Go to Question 90
_		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	YES	NO
201	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	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	NON
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, 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 Patamogeton 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 kahnii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida 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 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 stricte Carex atherodes Carex buxbaumi Carex pellita Gentiana andrewsis Helianthus grosseserratus Liatris spicata Lystmachia quadriflora Lythrum alatum Pycnanthemum virginianum Sorghastrum mutans Spartina pectinata Solidago riddellii

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

Site:	Ra	iter(s):	Date:
subtoti	d first page		
0 4	Metric 5. Special Wet	lands.	
nex 10 pts. 3u	Check all that apply and score as indicate Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetla Lake Plain Sand Prairies (Oak of Relict Wet Prairies (10)	and-unrestricted hy and-restricted hydr Openings) (10)	ology (5)
	Known occurrence state/federal Significant migratory songbird/w	vater fowl habitat o	or usage (10)
1 4	Category 1 Wetland. See Ques		Rating (-10) terspersion, microtopography.
ax 20 pts. su	biblal 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
	Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a smal part and is of high quality
	Other6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	Select only one.	Annihi da la	
	High (5) Moderately high(4) Moderate (3)	low	Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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	d 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)
	O Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6ir Standing dead >25cm (10in) dbh	The state of the	High 4ha (9.88 acres) or more
	Amphibian breeding pools		raphy Cover Scale
		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
- 1		3	Present in moderate or greater amounts

End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 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	
ridung	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	D	
	Metric 6. Plant communities, interspersion, microtopography	Ĭ	
	TOTAL SCORE	41	Category based on score breakpoints  Mod - Z

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	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 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	(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 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.

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

# **Background Information**

Date: ID / ID / ID	
12/10/18	
Affiliation: THE MANNIK + SMITH GROUP INC	
	3537
Phone Number: 419 - 891 - 2222 ext 2046	
e-mail address: KSIMON @ Manik snith gap. com	
Name of Wetland: W2M-6	
Vegetation Communit(ies):	
HGM Class(es):	
Location of Wetland: include map, address, horth arrow, landmarks, distances, roads, etc.	
C + 11	
las tiame 4	
See Figure 4	
O	
Lat/Long or UTM Coordinate U1 1225 -910♥	
USCS Quad Name	
USGS Quad Name  FLAT YZ OZK	
USGS Quad Name  FLAT ROK  County  HURON	
USGS Quad Name  FLAT ROK  County  Township  TUN RZYW	
USGS Quad Name  FLAT ROK  County  Township  Section and Subsection	
USGS Quad Name  FLAT ROK  County  Township  Section and Subsection  Hydrologic Unit Code  OYLOOLZ 05 05	
USGS Quad Name  FLAT ROK  County  Township  Section and Subsection  Hydrologic Unit Code  OH OON 2 05  Site Visit  91318	
USGS Quad Name  FLAT YLOX  County  Township  TUN KZYW  Section and Subsection  Hydrologic Unit Code  OYLODIZ 05 05  Site Visit  Q13/18  National Wetland Inventory Map	
County  Township  Section and Subsection  Hydrologic Unit Code  OYLOOLZ 05 05	

Name of Wetland:	110 - 110	
Wetland Size (acres, hectares):	W2M-011	0.007
	nship with other surface waters, vegeta	ation zones, etc.
	11	
	See Figure 4	
	See 11900c/	
	V	
Comments, Narrative Discussion, Ju	stification of Category Changes:	
		The second secon
Final score :	10	Catagory

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.		
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	V	
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.	J	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	/	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	1	
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.	V	

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	000
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
	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 Welland is a Category 3 welland 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	Go to Question 8a
a	"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

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?	Wetland should be evaluated for possible Category 3 status.  Go to Question 9a YES Go to Question 9b YES Wetland should be evaluated for possible Category 3 status	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?  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	YES Go to Question 9b YES Wetland should be evaluated for possible	Go to Question 10
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	YES Go to Question 9b YES Wetland should be evaluated for possible	Go to Question 10
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	YES  Wetland should be evaluated for possible	NO
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	Wetland should be evaluated for possible	S debut le
	Works work and the	
	Go to Question 10	NO
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
Does the wetland have a predominance of native species within its	YES	NO
vegetation communities, although non-native or disturbance tolerant native species can also be present?	Welland is a Category 3 wetland	Go to Question 9e
Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	NO Go to Question 10
Lake Plain Sand Prairies (Oak Openings) Is the wetland located in		MO)
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
Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion	Wetland should be evaluated for possible Category 3 status	Complete Quantitative Rating
LLCSSSFATE	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.  Relict Wet Prairies. Is the wetland a relict wet prairie community elominated by some or all of the species in Table 1. Extensive prairies overe 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),	Cake 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 everal 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 of were formerly located in the Darby Plains (Madison and Union Counties). Sandusky Plains (Wyandot, Crawford, and Marion  Wetland should be evaluated for possible evaluated for possible

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 ohiomisi Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamagrostis stricta Carex atherodes Carex buxbaumin Carex pellita Carex sartwellit Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Solphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

toxic pollutants

nutrient enrichment

subtotal this page last revised 1 February 2001 jjm

Site:	Rate	r(s):	Date:
	2		
e ubloto	al first page		
D I	Metric 5. Special Wetlan	nds.	
max 10 pts. su	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 thr Significant migratory songbird/wate Category 1 Wetland. See Question	restricted hydr nings) (10) eatened or end r fowl habitat o	ology (5) dangered species (10) r usage (10)
0 1	3 Metric 6. Plant commun	ities, in	terspersion, microtopography.
max 20 pts sut	btotal 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  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 C	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) Low (1) None (0) 6c, Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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)	Mudflet	d Order Water Oliver Over19
	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)
	O 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	Minroton	San Santa
	Amphibian breeding pools	Microtopog	raphy 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
10		3	Present in moderate or greater amounts and of highest quality

13

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.
4	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	
italing	Metric 2. Buffers and surrounding land use	4	
	Metric 3. Hydrology	6	7
	Metric 4. Habitat	3	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	0	
	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	(10)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES  Wetland is categorized as a Category 1 wetland	(NO')	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Vetland 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	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	Category 2	Category 3
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End of Ohio Rapid Assessment Method for Wetlands.

## Background Information

Name:	TIE SIMON	
Date: /2 /	10/18	
Affiliation:	MANNIK + SWITH GROUP INC	
Address:	IN WOOD CIRCLE MAUNCE, OH 43	3537
Phone Number:	391-2222 ext 2046	
	N@ MANNIKSNithgrap.com	
NI	N2M-013	
Vegetation Communit(ies):	PEM	
HGM Class(es):	depressional	
Location of Wetland: include map, add	lress, north arrow, landmarks, distances, roads, etc.	
Lat/Long or UTM Coordinate	41.2295, -82.8077	
USGS Quad Name	FLATROCK	
County	Hukan	
Township Section and Subsection	T4N R24W	
Hydrologic Unit Code	600 at 12 at 12	
	04/00012 05 05	
Site Visit	9/14/18	
National Wetland Inventory Map		
Ohio Wetland Inventory Map		
Soil Survey		
Delineation report/map		

Name of Wetland:	W2M-013		
Wetland Size (acres, hec	tares):	5.714 DC	
Sketch: Include north ar	row, relationship with other surface wate	's, vegetation zones, etc.	_
	( E (		
	See Figure 4		
	U		
Comments, Narrative Disc	cussion, Justification of Category Change	es:	
inal score :	7.3.5	Category: /	

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	/	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	1	
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.	V	
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.	V	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	V	
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.	V	

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	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  Welland 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
a	"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

400		1	
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES  Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	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 90
	The state of the s	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	YES	NO
7,60	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 state of the s	Go to Question 10	NO
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES  Wetland should be evaluated for possible Category 3 status  Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	NO
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES  Wetland should be evaluated for possible Category 3 status  Complete Quantitative Rating	Complete Quantitative Rating

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria 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 oligosperma Carex irisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium nacrocarpon Vaecinium corymbosum Vaccinium oxyeoccos 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 buxbaumit Carex pellita Carex sartwellit Gentiana andrewsit Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginianum Silphūum terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

So acres (1-20 Zha) (6 pts)   25 to -50 acres (1-10 to -20 Zha) (5 pts)   10 to -25 acres (4 to -10 Ina) (4 pts)   10 to -25 acres (4 to -10 Ina) (4 pts)   10 to -25 acres (4 to -14 ha) (3 pts)   10 to -25 acres (4 to -41ha) (3 pts)   10 to -25 acres (4 to -41ha) (3 pts)   10 to -30 acres (0.0 -41ha) (3 pts)   10 to -30 acres (0.0 4 to -0 Ina) (2 pts)   10 to -30 acres (0.0 4 to -30 acres	Site:	A	3920001	Rater(s):	ELM	Date: 9/20/18
Select one size class and assign score.  -50 acres (P-20.2ha) (8 pts) -10 to ×25 acres (10 to 10.2ha) (4 pts) -10 to ×25 acres (10 to 40.2ha) (5 pts) -10 to ×25 acres (10 to 40.2ha) (2 pts) -10 to ×25 acres (10 to 40.2ha) (2 pts) -10 to 3 acres (2.0 4 to 40.2ha) (2 pts) -10 to 3 to 40 acres (2.0 4 to 40.2ha) (2 pts) -10 to 3 to 40 acres (10 to 40.2ha) (2 pts) -10 to 3 to 40 acres (10 to 40.2ha) (2 pts) -10 to	11	11	Metric 1. Wetl	and Area (size).		
>50 acres (P.20.2hia) (6 pts) 25 to <50 acres (N.10 + 20.2hia) (5 pts) 10 to <52 acres (4 to <10.1hia) (4 pts) 3 to <10 acres (12 to <12.2hia) (2 pts) 10 to <52 acres (4 to <10.1hia) (2 pts) 3 to <10 acres (12 to <12.2hia) (2 pts) 10.3 to <3 acres (0.2 to <12.2hia) (2 pts) 10.3 to <3 acres (0.0 + 40 to <10.2hia) (1 pts) 10.3 to <3 acres (0.0 + 40 to <10.2hia) (1 pts) 10.3 to <3 acres (0.0 + 40 to <10.2hia) (1 pts) 10.3 to <3 acres (0.0 + 40 to <10.2hia) (1 pts) 10.3 to <3 acres (0.0 + 40 to <10.2hia) (1 pts) 10.3 to <3 acres (0.0 + 40 to <10.2hia) (1 pts) 10.3 to <10.3 to	max 6 pts	subtotal				
10 to <25 acres (4 to <4-ha) (3 pts)		3000	>50 acres (>20.2	tha) (6 pts)		
O.3 to <3 acres (0.12 to <12 to) (20			10 to <25 acres (	4 to <10.1ha) (4 pts)		
Wetric 2. Upland buffers and surrounding land use.			0.3 to <3 acres (0	0.12 to <1.2ha) (2pts)		
2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around welland perimeter (7)  MRROW. Buffers average 50m (164ft) or more around welland perimeter (4)  NARROW. Buffers average 50m (164ft) or more around welland perimeter (4)  NARROW. Buffers average 10m to <50m (820 to <82ft) around welland perimeter (7)  VERY NARROW. Buffers average 50m (164ft) or more around welland perimeter (7)  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. (6)  MODERATELY HIGH. Residentall, fenced pasture, park. conservation tillage, new fallow field. (3)  High pti groundwater (3)  Perennial surface water (3)  Perennial surface water (3)  Perennial surface water (3)  Perennial surface water (40 years) (5)  3c. Maximum water depth. Select only one and assign score.  3c. One of (15 years) (12)  3c. Maximum water depth. Select only one and assign score.  3c. One of (15 years) (12)  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. One of (15 years) (12)  3c. Maximum water depth. Select only one and assign score.  3c. One of (15 years) (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)			<0.1 acres (0.04)	na) (0 pts)		
WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)   MEDIUM. Buffers average 25m to -55m (82 to 164ft) around wetland perimeter (4)   NARROW. Buffers average 10m to <5m (32ft to <82ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around vertical perimeter (7)   Very NARROW. Surpose -10m (162ft) around vertical perimeter (7)   Very NARROW. Surpose -10m (162ft) around vertical perimeter (8)   Very NARROW. Surpose -10m (162ft) around vertical average. Note of the very Narrow. Surpose -10m (162ft) around vertical v	3	7	Metric 2. Upla	nd buffers and	surrounding land	use.
WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)   MEDIUM. Buffers average 25m to -55m (82 to 164ft) around wetland perimeter (4)   NARROW. Buffers average 10m to <5m (32ft to <82ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around wetland perimeter (7)   Very NARROW. Buffers average -10m (162ft) around vertical perimeter (7)   Very NARROW. Surpose -10m (162ft) around vertical perimeter (7)   Very NARROW. Surpose -10m (162ft) around vertical perimeter (8)   Very NARROW. Surpose -10m (162ft) around vertical average. Note of the very Narrow. Surpose -10m (162ft) around vertical v	max 14 pls	subtotal		er width. Select only one an	d assign score. Do not double c	heck.
NARROW. Buffers average 10m to <25m (32ft to <82ft) around welland perimeter (1)  VERY NARROW. Buffers average <10m (<29ft) around welland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  Intensity of surrounding land use. Select one or double check and average.  Intensity of surrounding land use. Select one or double check and average.  Intensity of surrounding land use. Select one or double check and average.  Intensity of surrounding land use. Select one or double check and average.  NOP Intensity of surrounding land use. Select one or double check and average.  North of the groundwater (3)  Percental surface water (3)  Recovered (3)  Recovered (3)  Recovered (3)  Recovered (3)  Recovering (3)  Poor to fair (2)  Perof (1)  Very good (6)  Good (6)  Recovered (9)  Re			WIDE. Buffers a	verage 50m (164ft) or more a	around wetland perimeter (7)	
2b. Intensity of surrounding land use. Select one or double check and average.  LOW. Old field (>10 years), shrub land, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park. conservation fillage, new fallow field. (3)  HIGH. Urban, industrial, open pasture, row cropping, mining, construction, (1)  Metric 3. Hydrology.  Metric 3. Hydrology.  3a. Sources of Water. Score all that apply.  High pH groundwater (3)  Perceptilation (1)  Seasonal/Intermittent surface water (3)  Perronals surface water (3)  Perronals surface water (4)  Perronal surface water (3)  Perronals surface water (4)  Perronal surface water (5)  Perronal surface water (6)  Perronal surface water (7)  Perronal surface water (7)  Perronal surface water (8)  Perronal surface water (1)		NARROW. Buffe	ers average 10m to <25m (3)	2ft to <82ft) around wetland perir	meter (1)	
LCW. Old field (> io years), shrub land, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation illage, new fallow field. (3)  HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)  Metric 3. Hydrology.  3a. Sources of Water. Score all that apply.  High ph groundwater (5)  Other groundwater (5)  Other groundwater (3)  Precipitation (1)  Perennial surface water (alke or stream) (5)  3c. Maximum water depth. Select only one and assign score.  3c. More or none apparent (12)  Recovered (7)  Recovered (7)  Recovered (7)  Recovering (3)  Recovering (3)  Recovering (3)  Recovering (3)  Recovering (3)  Recovering (3)  Recovering (2)  Recovering (3)  Recovering (4)  Recovering (5)  Recovering (5)  Recovering (5)			2b. Intensity of surrounding	land use. Select one or do	uble check and average.	
HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)  Wetric 3. Hydrology.  Metric 3. Sources of Water. Score all that apply. High ph groundwater (5) Other groundwater (5) Other groundwater (5) Other groundwater (3) Perechial surface water (alke or stream) (5) Other groundwater (3) Perennial surface water (alke or stream) (5) Other groundwater (3) Perennial surface water (alke or stream) (5) Other groundwater (3) Other groundwater (3) Other groundwater (3) Perennial surface water (alke or stream) (5) Other groundwater (3) Other groundwater						7)
Metric 3. Hydrology.  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Percipitation (1)  Seasonal/Intermittent surface water (3)  Perantial surface water (3)  Perantial surface water (3)  Perantial surface water (3)  Perantial surface water (3)  Other groundwater (5)  Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  None or none apparent (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)  Wetric 4. Habitat Alteration and Development.  Metric 4. Habitat Alteration and Development.  Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovered (3)  Recovering (2)  Recovering (2)  Recovering (2)  Recovering (3)  None or none apparent (4)  Recovering (2)  Recovering (3)  Recovering (3)  None or none apparent (4)  Recovering (2)  Recovering (3)  Recovering (3)  Recovering (3)  None or none apparent (4)  Recovering (3)  Recovering (4)  Recovering (5)  Recovering (6)  Recovering (7)  Recovering (7)  Recovering (8)  Recovering (9)  Recover			MODERATELY	IIGH. Residential, fenced pa	sture, park, conservation tillage,	
3a. Sources of Water. Score all that apply.  High pH groundwater (3)  Percipitation (1)  Seasonal/Intermittent surface water (3)  Pernanial surface water (dake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score.  3c. Maximum water depth. Select only one and assign score one or double check and average.  None or none apparent (4)  Recovering (3)  Recovering (4)  Recovering (5)  Recovering (5)  Recovering (5)  Recovering (5)  Recovering (5)  Recovering (5)  Recover	Treat	16			opping, mining, construction, (1)	
High pH groundwater (3) Other groundwater (3) Precipitation (1) Seasonal/intermittent surface water (3) Perennial surface water (3) Part of inparian or upland corridor (1) Semi-to permanently inundated/saturated. Semi-to permanently inundated/saturated. Semi-to permanently inundated/saturated (2) Seasonally inundated (2) Seasonally saturated in upper 30cm (12) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (8) Recovering (9) Re	111	18			ALCOHOLDS .	
Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or of other content of the part of weltandfulpland (e.g. forest), come or of the part of reparison or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or of other content of the part of reparison or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or of other content or upland corridor (1) Perennial surface water (lake or stream) (5) 3d. Duration inundation/saturation. Score one or of other content or upland corridor (1) Regularly inundated (2) Reseasonally inundated (2) Seasonally inundated (2) Seasonally inundated (3)	max 30 pts.	subtotal				
Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score.    Semi-to permanently inundated/saturated (3)   Out 10 0.7m (15.7 to 27.6 in) (2)   Out (15.7 in) (1)   Out (15.7 in) (10)   Out (15.7 i			Other groundwate		Between	n stream/lake and other human use (1)
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)  Seasonally inundated/saturated (3) Seasonally inundated/saturated (3) Seasonally inundated (2) Seasonally inundated (1) Seaso			Seasonal/Intermit		Part of r	iparian or upland corridor (1)
A to 0.7m (15.7 to 27.6in) (2)   Seasonally inundated (2)   Seasonally inundated (2)   Seasonally inundated (2)   Seasonally saturated in upper 30cm (12)   Recovered (7)   Recovered (7)   Recovering (3)   Recent or no recovery (1)   Recovered (7)   Recovered (7)   Recovered (7)   Recovered (7)   Recovered (7)   Recovered (7)   Recovered (8)   Recent or no recovery (1)   Recovered (9)   Recovering (9)   Recovering (9)   Recovering (9)   Recovering (9)   Recovered (9)   Rec			3c. Maximum water depth.		score. Semi- to	permanently inundated/saturated (4)
3e. Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)  Wetric 4. Habitat Alteration and Development.  1. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovering (3) Recovering (4) Recovering (5) Recovering (5) Recovering (6) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering				to 27.6in) (2)	Seasona	ally inundated (2)
None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)    Recovering (3)   Recent or no recovery (1)   Recovering (3)   Recent or no recovery (1)   Recovering (3)   Recovering (2)   Recovering (3)   Recovering (2)   Recovering (3)   Recovering (4)   Recovering (4)   Recovering (5)   Recovering (6)   Recovering (6)   Recovering (7)   Recovering (8)   R						
Recovering (3) Recent or no recovery (1)  Wetric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) 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) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (6) Recovering (7) Recovering (7) Recovering (7) Recovering (8) Recovering (8) Recovering (8) Recovering (8) Recovering (8) Recovering (9) Rec			None or none app	parent (12) Check all disturt	ances observed	- A A CONTRACTOR AND THE RESIDENCE OF THE PARTY OF THE PA
Weir   stormwater input			Recovering (3)	tile		
Stormwater input   other			Recent or no reco			
4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Fair (3) Poor to fair (2) Poor (1) Recovered (6) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recovering (9) Recovering (1) Recovering (2) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (8) Recovering (9) Recovering (1) Re			Mark Williams	70000		
Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	UC	225	Metric 4. Habi	tat Alteration ar	nd Development.	
None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	max 20 pts	0	An Substrate disturbance	Score one or double check	and average	
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) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1) Recent or no recovery (1)  Recent or no recovery (1)			None or none app		sild average.	
4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Recent or no recovery (1) Recent or no recovery (1) Fair (3) Poor (4) Fair (3) Poor to fair (2) Poor (1) Check all disturbances observed mowing grazing herbaceous/aquatic bed removal selective cutting woody debris removal farming			Recovering (2)			
Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)					core.	
Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)			Excellent (7)	terteur Acident outside in 147 Au		
Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)			Good (5)	av.		
Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)			Fair (3)	(4)		
None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)						
Recovered (6) Recovering (3) Recent or no recovery (1)			4c. Habitat alteration. Scor			
Recent or no recovery (1)  Clearcutting Selective cutting Woody debris removal  farming  sedimentation dredging farming			Recovered (6)		shrub/sa	
selective cutting dredging woody debris removal farming						
		*	1383011 01 110 1000	selective c	utting dredging	
		15	12	toxic pollut		enrichment
subtotal this page t revised 1 February 2001 jjm						

W2M-013

Site:	Rat	er(s):	Date:
22 subtota	J first page		
0 2	$_{\sim S}$ Metric 5. Special Wetla	ands.	
max 10 pts. su	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 i	nd-unrestricted hy nd-restricted hydro penings) (10) threatened or end ater fowl habitat o	ology (5) dangered species (10) r usage (10)
1 23	Category 1 Wetland. See Questi		terspersion, microtopography.
nax 20 pts. sui	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 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) Moderately high(4) Moderate (3)	low	Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
	or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	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% cover (0)	in the control	
	Absent (1) 6d. Microtopography.	Mudflat and	d 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/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
	Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh		High 4ha (9.88 acres) or more
	Amphibian breeding pools		graphy Cover Scale
	The state of the s	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

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End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	4	
	Metric 2. Buffers and surrounding land use	3	
	Metric 3. Hydrology		
	Metric 4. Habitat	4.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography		
	TOTAL SCORE	23.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

### Wetland Categorization Worksheet

Choices	Circle one	~	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES  Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES  Wetland should be evaluated for possible Category 3 status	M)	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	<b>S</b>	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	70	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES  Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, 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			

End of Ohio Rapid Assessment Method for Wetlands.

# **Background Information**

Name:	KATIE SIMON
Date:	12/10/18
Affiliation:	THE MANNIKY SMITH GRAP INC
Address: /800	INDIAN WOOD CIRCLE MANNEE, OH 43537
Phone Number:	419-891 2222 est 2046
e-mail address:	KSIMON @ manitsmith, grop com
Name of Wetland:	
Vegetation Communit(ies)	PFO
HGM Class(es):	dopressional
	See Figure 4
Lat/Long or UTM Coordinate	41.2337 -82.2341
USGS Quad Name	FLATRAK
County	HURAN
Township	TUAN POLICE
Section and Subsection	1910 Kyw
	1910 RAW
Hydrologic Unit Code	04100011 02 03
	04/00011 02 03
Site Visit	9/14/18
Site Visit  National Wetland Inventory N	9/14/18 Map
Hydrologic Unit Code Site Visit National Wetland Inventory N Ohio Wetland Inventory Map	9/14/18 Map

Name of Wetland:	W2M-015	
Wetland Size (acres, hectares):		
Sketch: Include north arrow, relatio	nship with other surface waters, vegetation zones, etc.  Rel Figure 4	
Comments, Narrative Discussion, Ju	istification of Category Changes:	
Final score : UI	Categor	y: Nod 2

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	V	
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.	V	
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.	V	
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.	V	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	V	
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	/	

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

#### **Narrative Rating**

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <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
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
	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
a	"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	NQ
010	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  Go to Question 10	NO Go to Question 9a
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 take and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES  Wetland is a Category 3 wetland  Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	YES YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES YES	NO
, ,	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES  Wetland should be evaluated for possible Category 3 status  Complete Quantitative Rating	Complete Quantitative Rating

1	able	1.	Cha	racteristic	plant:	species.
_		_				

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Sthrum salicaria Myriophyllum spicatum Vajas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Vanunculus 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 Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Ertophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lastocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis. Calamogrostis stricto Carex atherode. Carex buxbaumi Carex pellito Carex sartwelli. Gentiana andrewsi. Helianthus grosseserratus Liatris spicato 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:	A	3820001		Rater(s):	ELM		Date: 9/20/19
2	2	Metric 1.	Wetland	Area (size).			
max 6 pts.	subtotal	>50 at 25 to - 10 to - 3 to - 0.3 to 0,1 to	class and assign so cres (>20.2ha) (6 p <50 acres (10.1 to <25 acres (4 to <10 10 acres (1.2 to <4 <3 acres (0.04 to cres (0.04ha) (0 pt	ts) <20.2ha) (5 pts) ).1ha) (4 pts) ha) (3 pts) :1.2ha) (2pts) o <0.12ha) (1 pt)			
	13	Metric 2.	Upland b	uffers and	surroundi	ng land use.	
max 14 pts	subtotal	2b. Intensity of EVERY	Buffers average s JM. Buffers average OW. Buffers average NARROW. Buffers surrounding land us LOW. 2nd growth Old field (>10 yea RATELY HIGH. F	s average <10m (<32 se. Select one or do or older forest, prairi rs), shrub land, young	round wetland peri o <164ft) around w Iff to <82ft) around Iff) around wetland uble check and ave e, savannah, wildlif g second growth fo sture, park, conser	meter (7) retland perimeter (4) wetland perimeter (1) perimeter (0) erage. fe area, etc. (7) rest. (5) vation tillage, new fallo	w field. (3)
11	24		Hydrolog				
max 30 pts.	subtotal	High p Other Precip Seaso Peren: 3c. Maximum w >0.7 (: 0.4 to <0.4m 3e. Modification	ater depth. Select 27.6in) (3) 0.7m (15.7 to 27.6i (<15.7in) (1) s to natural hydrolo or none apparent (	face water (3) lake or stream) (5) only one and assign n) (2) ogic regime. Score o	3d. E 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) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2) ited in upper 30cm (12in) (1)
		Recov	ered (7) ering (3) t or no recovery (1	ditch tile dike weir stormwate	r Input	filling/grading road bed/RR track dredging other	
ix	35	Metric 4.	Habitat A	Iteration ar	d Develo	oment.	
max 20 pts.	subtotal	None Recov Recov	sturbance, Score or none apparent (- ered (3) ering (2) t or no recovery (1		and average.		
		4b. Habitat deve Excell Very 9 Good Moder Fair (3 Poor t	elopment. Select o ent (7) ood (6) (5) atlely good (4) ) o fair (2) 1)	nly one and assign so			
Ś	35 obtotal this p	Recov Recov Recen	or none apparent ( ered (6) ering (3) t or no recovery (1	mowing grazing clearcuttin	utting oris removal	shrub/sapling rem herbaceous/aqual sedimentation dredging farming nutrient enrichmen	tic bed removal

last revised 1 February 2001 jjm

Site:	Rate	r(s):	Date:
2) subtota	5 first page		
0 3	Metric 5. Special Wetla	nds.	
max 10 pts. sul	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	-restricted hydr enings) (10) reatened or end er fowl habitat o	ology (5)  dangered species (10) r usage (10)
6	Metric 6. Plant commun	nities, in	terspersion, microtopography.
nax 20 pts. subtot	ou. Fredaila regulation 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  6b. horizontal (plan view) Interspersion. Select only one.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)	Narrative D	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) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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.	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
	/ Standing dead >25cm (10in) dbn / Amphibian breeding pools	Microtopog	raphy Cover Scale
	LI I WALLEY STANDING PROOF	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
ALL		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	2	
,,,,,,,	Metric 2. Buffers and surrounding land use	11	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	- 11	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	41	Category based on score breakpoints  Mod 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 less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES  Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES  Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES  Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	(NO)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES  Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	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
------------	------------	------------	------------

End of Ohio Rapid Assessment Method for Wetlands.

## **Background Information**

Name:	KATIE SIMON	
Date:	12/10/18	
Affiliation: THE MI	ANNIR + SMITH GRAP INC	
Addison	IN WOD CIRCLE INTUMEE, OH 425:	37
Phone Number: 419-	891-2222 ext 3046	
e-mail address:	SIMON @ Mannik smith grap con	
Name of Wetland:	W2M-016	
Vegetation Communit(ies):	PEM	
HGM Class(es):	depressional	
Sei	e Fjore 4	
Lat/Long or UTM Coordinate	41.2367, -82.8327	
USGS Quad Name	FLAT ROCK	
County	MURON	
THE CONTRACTOR OF THE CONTRACT		
Township		
Section and Subsection	Control of Artists of	
	TYN RZYW	
Section and Subsection	TYN RZYW	
Section and Subsection  Hydrologic Unit Code	TYN RZYW	
Section and Subsection  Hydrologic Unit Code  Site Visit	TYN RZYW	
Section and Subsection  Hydrologic Unit Code  Site Visit  National Wetland Inventory Map	TYN RZYW	

Name of Wetland:	W2M - 016		
Wetland Size (acres, hec	tares):	D. 014 DC	
Sketch: Include north arr	ow, relationship with other surface waters	, vegetation zones, etc.	
	6		
	See Figure 4		
	See 1 york 1		
	U		
Comments, Narrative Disc	ussion, Justification of Category Changes	1	
	and a second of second of		
inal score :	17 6	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.	V	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	~	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	V	
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.	V	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	1	
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	~	

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

#### **Narrative Rating**

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <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	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  Welland is a Category 1 wetland Go to Question 6	Go to Question 6
5	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
Ba	"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  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	MO
	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
	A for a construction to the first of the fir	Go to Question 9a	A
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 partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES  Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	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 wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	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	A
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the welland be characterized by the following description: the welland 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	3
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO
	dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties),	Wetland should be evaluated for possible Category 3 status	Complete Quantitative Rating
	and portions of western Ohio Countles (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	Complete Quantitative	0.5

Invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria Afriophyllum spicatum Vajas minor Phalaris arundinacea Phragmites australis Potamogeton crispus Ramunculus ficaria Rhamnus frangula Typha angustifolia Typha sglauca	Zygadenus elegans var, glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rosiellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix nyricoides 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 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 buxbaumin Carex sartwellit Gentiana andrewsii Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatum Pycnanthemum virginanum Silphium terebinthinaceum Sorghastrum nutans Spartina pectinata Solidago riddellii

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

Site:	AD	2500	Rater(s):	FLM		Date: 9/20//8
0	0	Metric 1. W	etland Area (size	·).		16
max 6 pts.	subtotal	25 to <50 a 10 to <25 a 3 to <10 ac 0.3 to <3 ac 0.1 to <0.3	and assign score. >20.2ha) (6 pts) cres (10.1 to <20.2ha) (5 pts) cres (4 to <10.1ha) (4 pts) res (1.2 to <4ha) (3 pts) cres (0.12 to <1.2ha) (2pts) acres (0.04 to <0.12ha) (1 pt) (0.04ha) (0 pts)			
5	5	Metric 2. U	pland buffers and	d surroundi	ng land use.	
max 14 pts.	subtotal	WIDE. Buf MEDIUM. I NARROW. VERY NAR 2b. Intensity of surro VERY LOW LOW. Old I MODERAT	e buffer width. Select only one fers average 50m (164ft) or mo Buffers average 25m to <50m (550m). Buffers average 10m to <25m ROW. Buffers average <10m (200 January 200 Janu	re around wetland pe 32 to <164ft) around on (32ft to <82ft) around <32ft) around wetland double check and avairie, savannah, wildl ung second growth for pasture, park, conse	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) yerage. life area, etc. (7) orest. (5) ervation tillage, new fallo	w field. (3)
7	12	Metric 3. H	ydrology.			
max 30 pts.	subtotal	Other grour Precipitation Seasonal/Ir Perennial si 3c. Maximum water >0.7 (27.6ir 0.4 to 0.7m <0.4m (<15	oundwater (5) ndwater (3) n (1) ntermittent surface water (3) urface water (lake or stream) (5 fepth. Select only one and assi n) (3) (15.7 to 27.6in) (2)	) 3d. gn score.	Part of wetland/up Part of riparian or Duration Inundation/satu Semi- to permane Regularly inundati Seasonally inundati Seasonally satura	n (1) ake and other human use (1) aland (e.g. forest), complex (1) upland corridor (1) ration. Score one or dbl cheo ntly inundated/saturated (4) ed/saturated (3)
		None or nor Recovered Recovering	ne apparent (12) (7) (3) o recovery (1)  Check all dis ditch tile dike weir	turbances observed	point source (nons filling/grading road bed/RR track dredging other	A STATE OF THE STA
8.5	17.5	Metric 4. H	abitat Alteration			
max 20 pts	subtotal	None or not Recovered Recovering Recent or not the Habitat developm Excellent (7 Very good ( Good (5) Moderately Fair (3) Poor to fair Poor (1)	(2) o recovery (1) ent. Select only one and assig ) 6) good (4)	n scoré		
si	17.5	Recovered Recovering Recent or n	(6) mowing grazing or recovery (1) clearcu selectiv woody		shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmer	ic bed removal

Site:	Rate	r(s);	Date:
F subtota	1.5 al first page		
0 1	Metric 5. Special Wetla	nds.	
ax 10 pts. st	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	restricted hydr enings) (10) reatened or end er fowl habitat o	ology (5) langered species (10) r usage (10)
	Category 1 Wetland. See Question		
0   f			terspersion, microtopography.
in es pla.	6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.	Vegetation	Community Cover Scale  Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed Emergent Shrub	<del>- 1</del>	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 smal part and is of high quality
	Other6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	Select only one.	Hospita 4	
	High (5)  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) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
	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)	Mudflet en	Open Water Class Quality
	6d. Microtopography.	0	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	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		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
(2)		3	Present in moderate or greater amounts and of highest quality

17.5

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	
reading	Metric 2. Buffers and surrounding land use	5	
	Metric 3. Hydrology	7	
	Metric 4. Habitat	5.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	0	
	TOTAL SCORE	17.5	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

### Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM	
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES  Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM	
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES  Wetland should be evaluated for possible Category 3 status	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 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	MO)	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	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).	
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR eccreational functions AND he 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.	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	Çategory 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

# **Background Information**

Name:  Date:  Affiliation:	KATIE SIMON	
9 1977		
Affiliation:	12/10/18	
1176	MANNIK + SMITH GROUP INC	
Address: /800 INDIAN	116 200	7
Phone Number:	91-2222 ext 2046	
e mail addraga:		
Name of Wetland:	10N @ Maniksmith garp com	
Vegetation Communit(ies):	W2111 - 021	
HGM Class(es):	PEM, PSS, PFO	
	See Figure 4	
Lat/Long or UTM Coordinate	41.1701, -82.7964	
USGS Quad Name	41.1701, -82.7964 FLAT ROCK	
USGS Quad Name	FLAT ROCK HURON	
USGS Quad Name County Township		
USGS Quad Name  County  Township  Section and Subsection	FLAT ROCK HURON TBN K24W	
USGS Quad Name  County  Township  Section and Subsection  Hydrologic Unit Code	FLAT ROCK HURON	
USGS Quad Name  County  Township  Section and Subsection  Hydrologic Unit Code  Site Visit	FLAT ROCK HURON TBN K24W	
USGS Quad Name  County  Township  Section and Subsection  Hydrologic Unit Code  Site Visit  National Wetland Inventory Map	FLAT ROCK HURON TBN K24W	
USGS Quad Name  County  Township  Section and Subsection  Hydrologic Unit Code  Site Visit	FLAT ROCK HURON TBN K24W	

Name of Wetland:	602M-021	
Wetland Size (acres, hectares		
	relationship with other surface waters, vegetation zones, etc.	
	See Figure 4	
	le tique 9	
Community Namethy Discussion		
Johnnents, Narrative Discussion	on, Justification of Category Changes:	
inal score :	②   Cate	gory: 3

#### Scoring Boundary Worksheet

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.		
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wellands or parts of a single wetland.	L	
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.	V	
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.	0	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	/	
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	~	

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

#### **Narrative Rating**

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature and by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <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	60 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
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
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
3	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly 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	96 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
Ва	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES  Wetland is a Category 3 wetland.  Go to Question 8b	Go to Question 8b

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	à
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	YES YES	NO NO
56	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 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	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	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	A
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	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
	dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Wetland should be evaluated for possible Category 3 status Complete Quantitative	Complete Quantitative Rating
	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 stricta Deschampsta caespitosa Eleocharis rostellata Ertophorum viridicarinatum Gentianopsis spp. Lobelia kalmit 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 Gentiana andrewsi Helianthus grosseserratus Liatris spicate Lysimachia quadriflore Lythrum alatum Pycnanthemum virginianum Silphium terebinthiaceum Sorghastrum nutans Spartina pectinata Solidago riddelli

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

Site:	A29670901	Rater(s):	ELM	Date: 9/20/18
6	Metric 1. Wet	land Area (size)		000
max 6 pts	10 to <25 acres 3 to <10 acres 0.3 to <3 acres			
fu I	<0.1 acres (0.0		surrounding la	and use.
max 14 pts	2a. Calculate average bu WIDE. Buffers MEDIUM. Buffers NARROW. Buffers VERY NARROW. 2b. Intensity of surroundi VERY LOW. 2d. LOW. Old field MODERATELY	ffer width. Select only one a average 50m (164ft) or more ers average 25m to <50m (82 fers average 10m to <25m (N. Buffers average <10m (< not only only one of the condition of	nd assign score. Do not dot around wetland perimeter (2 to <164ft) around wetland p 32ft to <82ft) around wetland p 32ft) around wetland perime louble check and average. In the savannah, wildlife area, ng second growth forest. (5) pasture, park, conservation t	uble check.  7) perimeter (4) d perimeter (1) ter (0) etc. (7) illage, new fallow field. (3)
76	Metric 3. Hyd	ndustrial, open pasture, row rology.	cropping, mining, construction	n. (1)
max 30 pts.	3c. Maximum water depti >0.7 (27.6in) (3 0.4 to 0.7m (15. <0.4m (<15.7in)	water (5) ater (3)  nittent surface water (3) be water (lake or stream) (5) by Select only one and assig	3d. Duration n score.	vity. Score all that apply. 0 year floodplain (1) etween stream/lake and other human use (1) et of wetland/upland (e.g. forest), complex (1) et of riparian or upland corridor (1) inundation/saturation. Score one or dbl checl emi- to permanently inundated/saturated (4) egularly inundated/saturated (3) easonally inundated (2) easonally saturated in upper 30cm (12in) (1) erage.
	None or none a Recovered (7) Recovering (3) Recent or no re	pparent (12) Check all distu ditch tile	rbances observed po	int source (nonstormwater) ing/grading ad bed/RR track edging ier
(8)	00	itat Alteration a	nd Developme	
max 20 pts.	4a, Substrate disturbance None or none a Recovered (3) Recovering (2)	<ol> <li>Score one or double check pparent (4)</li> </ol>	c and average.	
	Recent or no re  4b. Habitat development. Excellent (7) Very good (6) Good (5) Moderately goo Fair (3) Poor to fair (2)	Select only one and assign	score	
	the state of the s	ore one or double check and		
Ē	None or none a Recovered (6) Recovering (3) Recent or no re	covery (1) mowing grazing clearcutt selective	ing he se cutting drebris removal fai	rub/sapling removal rbaceous/aquatic bed removal dimentation edging ming trient enrichment

last revised 1 February 2001 jjm

Site:	Rate	r(s):	Date:
- M	5		
subtota	I first page	555	
0 6	Metric 5. Special Wetla	nds.	
ix 10 pts. sui	blotal 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		ology (5)
	Relict Wet Prairies (10)	7.50	
	Known occurrence state/federal the Significant migratory songbird/water	reatened or end	langered species (10)
	Category 1 Wetland. See Question	n 1 Qualitative f	Rating (-10)
11 1	NACALL A DIST		terspersion, microtopography.
16 8	3		ioropororon, inforotopography.
ix 20 pts. sub	6a. Wetland Vegetation Communities.		Community Cover Scale
	Score all present using 0 to 3 scale.  Z Aquatic bed	0	Absent or comprises <0.1ha (0.2471 acres) contiguous are:  Present and either comprises small part of wetland's
	2 Emergent	,	vegetation and is of moderate quality, or comprises a
	2 Shrub		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 sma
	Other	3	part and is of high quality  Present and comprises significant part, or more, of wetland
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one.	in Objection	
	High (5) Moderately high(4)	Narrative D	Description 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) 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.  Z Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
	2 Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more
	2 Standing dead >25cm (10in) dbh		I d
	Amphibian breeding pools		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

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	5	
ixaurig	Metric 2. Buffers and surrounding land use	14	
	Metric 3. Hydrology	28	
	Metric 4. Habitat	18	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	16	Lange State of the
	TOTAL SCORE	81	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	<b>®</b>	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM	
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.	
Did you answer "Yes" to Narrative Rating No. 5	YES  Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM	
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES  Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.	
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	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 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	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.	

Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

## Background Information

Name:	KATIE SIMON	
Date:	12/10/18	
Affiliation:	K MANNIK + SMITH GROUP INC	
Address: (90)	INDIAN WOOD CIRCLE MANNEE, 43537	
Phone Number:	419-891-2222 est 2046	
e-mail address:	KSIMON @ Manniksnithgrap con	
Name of Wetland:	W2M-024	
Vegetation Communit(ies):	PFO	
HGM Class(es):		
	See Figure 4	
Lat/Long or UTM Coordinate	41.1676, -82.7978	
USGS Quad Name	FLAT Rak	T
County		
Township	T3N R2YW	
Section and Subsection		
Hydrologic Unit Code	04/00012 05 03	
Site Visit	9/18/18	
National Wetland Inventory M	ар	
Ohio Wetland Inventory Map		
Soil Survey		

Name of Wetland:	CU2M-024	
Wetland Size (acres, hectares):	2.876	96
Sketch: Include north arrow, rela	itionship with other surface waters, vege	station zones, etc.
	See Figure 4	
omments, Narrative Discussion,	Justification 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.	V	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	~	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	~	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	V	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.	V	
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.	V	

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

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in

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

Summary: Application - Part 14 of 17 electronically filed by Christine M.T. Pirik on behalf of Firelands Wind, LLC