Wetland Size (acres, hectares): 7,5 a C  Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
fores	
	1
	9
P55	Frelo
Greld / 7	
Ciela /	
wetland 7	
	)
forest	
Comments, Narrative Discussion, Justification of Category Changes:	
Final score : Category:	T

### 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**

wetland 7

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 printingly by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	(4)
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?	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	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	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%?	Wetland is a Category 3 wetland Go to Question 7	Go to Question 7
Z	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8t

wetland 7

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
9b	elevation, or along a tributary to Lake Erie that is accessible to fish?  Does the wetland's hydrology result from measures designed to	Go to Question 9b	Go to Question 10
,	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	NO Go to Question 9c
	N. C.	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
	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	YES	NO
	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	NO
	to regulation communities	Wetland should be	Go to Question 10
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	evaluated for possible	Go to Quotalon 15
	· · · · · · · · · · · · · · · · · · ·	Category 3 status	
10	Lake Phylic Court Particle (C.) Court and the court of th	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	YES Wetland is a Category 3 wetland.	Go to Question 11
	several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Go to Question 11	
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative	NO Complete Quantitative Rating
	The second secon	Rating	100

wetland 7

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

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	- Company	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflore
71 0	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.	es senting	Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		₩
	Solidago ohioensis		1 N	
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre		141	

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

Site: ∽	etla	nd 7 Rater(s): AJK	Date: 8//6//7
3	3	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)	
* Y	4	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 fall	
5	9	Metric 3. Hydrology.	
max 30 pts,	subtotal	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3d. Duration inundation/sa 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)	ain (1)  //lake and other human use (1)  upland (e.g. forest), complex (1)  or upland corridor (1)  turation. Score one or dbl check.  tently inundated/saturated (4)  ated/saturated (3)
		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)  None or none apparent (12) Check all disturbances observed ditch with title dike weir stormwater input  Other	
8	17	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6)	
		Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.	
subi	17	Recent or no recovery (1)  Recent or no recovery (1)  Selective cutting  woody debris removal toxic pollutants  sedimentation dredging farming nutrient enrichn	uatic bed removal

7

last revised 1 February 2001 jjm

22

End of Quantitative Rating. Complete Categorization Worksheets.

2

3

Present very small amounts or if more common

Present in moderate amounts, but not of highest

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

of marginal quality

and of highest quality

# **ORAM Summary Worksheet**

wetland 7

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species		If yes, Category 3.
	Question 3. High Quality Natural Wetland		If yes, Category 3.
	Question 4. Significant bird habitat		If yes, Category 3.
	Question 5. Category 1 Wetlands		If yes, Category 1.
	Question 6. Bogs		If yes, Category 3.
	Question 7. Fens		If yes, Category 3.
	Question 8a. Old Growth Forest		If yes, Category 3.
	Question 8b. Mature Forested Wetland		If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted		If yes, evaluate for Category 3; may also be
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants		If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	6	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings		If yes, Category 3
*	Question 11. Relict Wet Prairies		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		A TOWN THE PLANTS
* *	Metric 3. Hydrology	5	
	Metric 4: Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	27	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

# **Wetland Categorization Worksheet**

wetland 7

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	Vetland 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 T	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, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Fin	al Category	
Choose one	Category 1	Category 2	Category 3
			F
			1
>			

End of Ohio Rapid Assessment Method for Wetlands.

	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

#### Instructions\_

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

Name: Agran Kwolek	
Date: 8/2e/16	
Affiliation:	
Stantec Address:	
11687 Lebanon Rd Cincinnati OH 45241	
513 824 8200	
Aaron, Kwolek @ Stantec.com	
Name of Wetland: A S	
Vegetation Communit(les): $\rho \in \mathcal{M}$	
HGM Class(es):	
Depressional	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
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(191)	
Control to the Control of the Contro	
Lat/Long or UTM Coordinate 40, 426583, -82,715315	Manach
USGS Quad Name ,	
Chesterville	
MORFO W	
Township	
Section and Subsection	14
Hydrologic Unit Code  05 04 000 3 620 Z	
Site Visit	0.
National Wetland Inventory Map	
Ohio Wetland Inventory Map	
Soil Survey Sta Streets Silt loam G-290 slopes	
Delineation report/map	
see Stantec Delinigtion Report	

Name of Wetland:  Wetland Size (acres, hectares): 0, 3 GC	
Wetland Size (acres, hectares): O, 3 C, C Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	,
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
	1
5	
Stream 5	
oldField	
public *	1 <u>1</u> 8
fland 8	
wetland 8 PEM	
Comments, Narrative Discussion, Justification of Category Changes:	
	· ; "
* * · · · · · · · · · · · · · · · · ·	+12
Final score: 79 Cate	gory:

### **Scoring Boundary Worksheet**

wetland 8

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	
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**

wetland 8

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 printingly by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	7 3
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	Wetland should be evaluated for possible Category 3 status  Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.  Go to Question 3	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?	Wetland is a Category 3 wetland Go to Question 5	Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	Go to Question 6
3	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	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 8
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 8

wetland 8

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 elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Gó 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
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	Go to Question 10	NO I
4	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	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance	Go to Question 10	NO T
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
40	THE SECTION OF THE SE	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.	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

wetland 8

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
71 0	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.	* 100 T	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			
	Trial achin paluetra			

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

Site:	We	fla	nd	8			Ra	iter(s)	: A5k				Date: 8/	16/16
2	Z	Me	etric	: 1.	Wet	land	Area	a (siz	œ).			. 4		r i
max 6 pts.	subtotal	Sele		>50 ac 25 to • 10 to • 3 to • 0.3 to 0.1 to	cres (>20 <50 acres <25 acres 10 acres <3 acres <0.3 acres	assign so 2ha) (6 p (10.1 to (4 to <10 (1.2 to <4 (0.12 to < s (0.04 to 4ha) (0 pt	ots) <20.2h 0.1ha) ( ha) (3 p <1.2ha) o <0.12	4 pts) ots) (2pts)		1				
9	11	Me	etric	2.	Upla	and b	uffe	rs a	nd suri	ounc	ding	land us	e.	
max 14 pts.	subtotal		Intens	WIDE MEDII NARR VERY ity of : VERY LOW.	Buffers UM. Buff OW. Buff NARRO Surroundi LOW. 2 Old field ERATELY	average : ers avera ffers aver W. Buffer ng land u nd growth (>10 yea ' HIGH. F	50m (1) ge 25m age 10i rs avera se. Se n or olde irs), shi Resider	64ft) or n to <50m to <50m to <25 age <10m elect one er forest, rub land, ntial, fence	nore around 1 (82 to <164 5m (32ft to < 1 (<32ft) aro or double cl prairie, sava young secon	welland lft) aroun 82ft) arou und wetla neck and annah, w nd growtl park, cor	perimet d wetla und wet and per averag ildlife a n forest iservati	and perimeter (4 tland perimeter rimeter (0) ge. rea, etc. (7) . (5) on tillage, new	(1)	
7	18	М				rolog				,,				
max 30 pts.	subtotal		<u>×</u>	High p Other Precip Seaso Peren	H ground groundw pitation (1 pnal/Inten nial surfa	) nittent su ce water	rface w	rater (3) r stream)		30	×	Part of wetlan Part of riparia Ition inundation/	dplain (1) am/lake and other hu d/upland (e.g. forest n or upland corridor ( /saturation. Score or	), complex (1) (1) ae or dbl check
			X	>0.7 ( 0.4 to <0.4m	27.6in) (3 0.7m (15 ı (<15.7in	) .7 to 27.6 ) (1)	in) (2)		ssign score.		eck and	Regularly inui Seasonally in Seasonally sa	nanently inundated/sa ndated/saturated (3) undated (2) aturated in upper 30c	
			ス	Recov Recov	/ered (7) /ering (3)	apparent (		ditch tile dike weir			d	point source ( filling/grading road bed/RR dredging other		
6	24	M	etri	c 4.	. Hal	oitat A	Alte	ratio	n and [	Devel	opn	nent.		
max 20 pts.	subtotal		X. Habita	None Recov Recei Recei at dev Excel	or none a Vered (3) Vering (2) at or no re	apparent (	(4) 1)		check and av	rerage.	ė.			
		4c.	文	Good Mode Fair (3 Poor 3 Poor	(5) rately goo 3) to fair (2) (1)		or dout	ole check	and averag	e.				_
s	Z4	Dage	$\overline{\chi}$	Reco	vered (6) vering (3)	apparent		mov graz clea sele woo			ed -	shrub/sapling herbaceous/a sedimentation dredging farming nutrient enric	iquatic bed removal n	
last revised	1 Februa	ary 20	01 jjm				<u>L</u>							

Site:	wefla	nd 8	Ra	ater(s):	AY	K	Date:	8/16/12
ſ	Z Y subtotal first pa	_		41 o so el o	¥			
U	24	Metr	ic 5. Special Wet	tiands	-			
max 10 pts	s. subtotal	Chock of	I that apply and score as indicat	hed				4
1 Contract		CHECK an	Bog (10)					
			Fen (10)			2.6		
			Old growth forest (10)					
		-	Mature forested wetland (5)	land unrop	tricted byd	rology (10)		
		-	Lake Erie coastal/tributary wet Lake Erie coastal/tributary wet					
			Lake Plain Sand Prairies (Oak					
		2	Relict Wet Prairies (10)			90 J		
			Known occurrence state/feder	al threaten	ed or enda	ingered species (10)		
		-	Significant migratory songbird, Category 1 Wetland. See Que	water fowl	nabitative R	usage (10) ating (-10)		
	1	7 8 8 2 4 10					onoars	nhv
5	29	IVIETT	ic 6. Plant comit	lumue	35, IIIU	erspersion, microt	opogra	ipily.
		J	Listt-ti Communities	W	ogotation	Community Cover Scale		
max 20 pts	s. subtotal		and Vegetation Communities. present using 0 to 3 scale.		0	Absent or comprises <0.1ha (0.2	2471 acres)	contiguous area
		OCOIG AII	Aquatic bed	-	1	Present and either comprises sn	nall part of w	etland's
		3	Emergent			vegetation and is of moderate		omprises a
		1	Shrub	ş		significant part but is of low qu		- f Namela
			Forest		2	Present and either comprises signed vegetation and is of moderate		
		100	Mudflats Open water		9	part and is of high quality	quality of co	inprisco a siriali
		- <	Other	S-	3	Present and comprises significa	nt part, or me	ore, of wetland's
		6b. horiz	zontal (plan view) Interspersion.			vegetation and is of high quali	ly	
		Select or						
			High (5)	N	low	escription of Vegetation Quality  Low spp diversity and/or predom	inance of no	onnative or
		-	Moderately high(4) Moderate (3)		1044	disturbance tolerant native spe		ermoentes v.
			Moderately low (2)	_	mod	Native spp are dominant compo	nent of the v	
		X	Low (1)			although nonnative and/or dist		
			None (0)			can also be present, and spec	-	
			erage of invasive plants. Refer 1 ORAM long form for list. Add			moderately high, but generally threatened or endangered spp		Se of fale
			t points for coverage		high	A predominance of native specie		native spp
			Extensive >75% cover (-5)	52	600 <b>6</b> 00	and/or disturbance tolerant na	tive spp abs	ent or virtually
			Moderate 25-75% cover (-3)			absent, and high spp diversity		
		X	Sparse 5-25% cover (-1)	_		the presence of rare, threaten	ed, or endan	gerea spp
		-	Nearly absent <5% cover (0) Absent (1)	N	ludflat and	Open Water Class Quality		
		6d Micr	otopography.	-	0	Absent <0.1ha (0.247 acres)		
70.			I present using 0 to 3 scale.	_	A 1	Low 0.1 to <1ha (0.247 to 2.47 a	acres)	
		4.4	Vegetated hummucks/tussuch		2	Moderate 1 to <4ha (2.47 to 9.8	88 acres)	
		1	Coarse woody debris >15cm	_	3	High 4ha (9.88 acres) or more		
			Standing dead >25cm (10in) ( Amphibian breeding pools	aon N	licrotonor	raphy Cover Scale		
			Tymbuman preeding hoois	<u></u>	0	Absent		
				_	1	Present very small amounts or i	f more comm	non
				2	7112	of marginal quality		
					2	Present in moderate amounts, be quality or in small amounts of		
				-	3	Present in moderate or greater		
_	_				3	and of highest quality	2.11001110	

End of Quantitative Rating. Complete Categorization Worksheets.

# **ORAM Summary Worksheet**

wetland 8

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	NC	If yes, Category 3.
	Question 2. Threatened or Endangered Species	1	If yes, Category 3.
	Question 3. High Quality Natural Wetland		If yes, Category 3.
	Question 4. Significant bird habitat		If yes, Category 3.
	Question 5. Category 1 Wetlands		If yes, Category 1.
	Question 6. Bogs		If yes, Category 3.
	Question 7. Fens		If yes, Category 3.
	Question 8a. Old Growth Forest		If yes, Category 3.
	Question 8b. Mature Forested Wetland		If yes, evaluate for Category 3; may also be
	Question 9b. Lake Erie Wetlands - Restricted		If yes, evaluate for Category 3; may also be
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants		If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	*	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings		If yes, Category 3
	Question 11. Relict Wet Prairies	4	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	CONTRACTOR OF THE PARTY OF THE
	Metrio 3. Hydrology	7	
	Metrio 4. Habitat	6	
	Metric 5. Special Wetland Communities	O	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	29	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

# Wetland Categorization Worksheet wat found 8

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 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.

	Fina	al Category	
Choose one	Category 1	Category 2	Category 3
	./		1 1
	X		

End of Ohio Rapid Assessment Method for Wetlands.

	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

#### **Instructions**

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx

# **Background Information**

Date: 8/15/2016  Affiliation: Stanfec  Address: 11687 Lebanon Rd Cincinnati, OH 45241  Phone Number: 513-842-8200
Affiliation: Stantec  Address: 11687 Lebanon Rd Cincinnati, UH 45241
Address: 11687 Lebanon Rd Cincinnati, UH 45241
Phone Number
513-842-8200
e-mail address: nathan, no landastantec.com
Name of Wetland: Wetland 9
Vegetation Communit(les): PEM
HGM Class(es):
Location of Wetland: include map, address, north arrow, Jandmarks, distances, roads, etc.
1 3
Project area (Line) & Mf. Vernon
- Project area (line) E
Mt. Vernon
27
*
lè.
adeptores autores autores autores autores de la compara de
Lat/Long or UTM Coordinate 40, 428835, -82, 724949
USGS Quad Name Chesterville
County Morrow
Township
Section and Subsection
Hydrologic Unit Code 050400030202
Site Visit Nonp
National Wetland Inventory Map
Ohio Wetland Inventory Map  N/A
Call Current
Delineation report/map See Ecological Resource Report

Name of Wetland: Wetland	9	
Wetland Size (acres, hectares):	),14 ac	
Sketch: Include north arrow, relations!	hip with other surface waters, vegetation zones, etc.	
	Forested	
	1	
Q (	1 W W	€
7	u w	
Comments, Narrative Discussion, Just	Forested	~~
See E	Ecological Resource Report	
Final score : 30	Category:	2

### **Scoring Boundary Worksheet**

Wetland 9

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.	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.		
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**

Wetland 9

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

		W	etland9
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
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 9a 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
Эе	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

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensi.
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricte
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherode
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratu
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicate
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflore
	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianun
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinate
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		100000
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site:	West	land 9	Rater(s): N. Noland	Date: 8/15/2016
		Metric 1. Wetland	_	
max 6 pts.	subtotal	Select one size class and assign sc	ore	
3,517		>50 acres (>20.2ha) (6 pt	s)	
		25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10		
		3 to <10 acres (1.2 to <4h	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 pts		
5	6	Metric 2. Upland b	uffers and surrounding la	and use.
max 14 pts.	subtotal		Select only one and assign score. Do not do 0m (164ft) or more around wetland perimeter	
		MEDIUM. Buffers average	pe 25m to <50m (82 to <164ft) around wetland	
		NARROW. Buffers avera	ge 10m to <25m (32ft to <82ft) around wetland saverage <10m (<32ft) around wetland perime	nd perimeter (1)
			e. Select one or double check and average.	eter (u)
			or older forest, prairie, savannah, wildlife area	
			s), shrub land, young second growth forest. (5 esidential, fenced pasture, park, conservation	
			open pasture, row cropping, mining, constructi	
10	16	Metric 3. Hydrolog	y.	
max 30 pts.	subtotal	3a. Sources of Water. Score all the High pH groundwater (5)		tivity. Score all that apply. 00 year floodplain (1)
		Other groundwater (3)		Between stream/lake and other human use (1)
		Precipitation (1)	F (2)	Part of wetland/upland (e.g. forest), complex (1)
		Seasonal/Intermittent surf Perennial surface water (		Part of riparian or upland corridor (1) n inundation/saturation. Score one or dbl check.
	33	3c. Maximum water depth. Select	only one and assign score.	Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6ii		Regularly inundated/saturated (3) Seasonally inundated (2)
		<0.4m (<15.7in) (1)	X s	Seasonally saturated in upper 30cm (12in) (1)
			gic regime. Score one or double check and a	verage.
		None or none apparent (1		oint source (nonstormwater)
		Recovering (3)	tile fi	lling/grading
		Recent or no recovery (1)		oad bed/RR track Iredging
				other
11	27	Metric 4. Habitat A	Iteration and Developme	ent.
max 20 pts.	subtotal	4a. Substrate disturbance. Score of		
		None or none apparent (4	·)	
		Recovering (2)		
		Recent or no recovery (1) 4b. Habitat development. Select of		
		Excellent (7)	ily one and assign score.	
		Very good (6)		
		Good (5) Moderately good (4)		
		Fair (3)		
		Poor to fair (2)		
		4c. Habitat alteration. Score one o	r double check and average.	
		None or none apparent (	Check all disturbances observed	×2:
		Recovered (6)		shrub/sapling removal
		Recovering (3) Recent or no recovery (1)	grazing h	nerbaceous/aquatic bed removal sedimentation
	2.	1	selective cutting d	dredging
	50			aming nutrient enrichment
SI	ubtotal this p	age	toxic politicants	idulent elilletit

last revised 1 February 2001 jjm

Site:	Wet	lam	da		Rater(s):	Ν./	Voland	Date: 8/15/2016
0	25 subtotal first	_	etric 5.	Special W	etlands	<b>.</b>		
max 10 pts.	subtota	Che	eck all that an	ply and score as indi	cated.			
æ	Ō		Bog (1) Fen (1) Old gro Mature Lake E Lake E Relict ' Knowr Signific Catego	0) count forest (10) count forest (10) count forested wetland (5) crie coastal/tributary v crie coastal/tributary v clain Sand Prairies (C Wet Prairies (10) coccurrence state/fec cant migratory songb cry 1 Wetland. See C	vetland-unres vetland-restric lak Openings leral threaten ird/water fowl Question 1 Qu	cted hydro ) (10) ed or enda habitat or ualitative R	angered species (10) usage (10) atting (-10)	
3	30	M	etric 6.	Plant com	munitie	es, int	erspersion, microt	opography.
max 20 pts.	subtota	6a.	Wetland Veg	etation Communities	. Ve	egetation	Community Cover Scale	
		Sco	re all present	using 0 to 3 scale.		0	Absent or comprises <0.1ha (0.2	
			Aquati Emerg			1	Present and either comprises sm vegetation and is of moderate	· ·
			Shrub				significant part but is of low qua	August -
			Forest		-	2	Present and either comprises sig	
		- (	Mudfla	ts			vegetation and is of moderate	
			Open	water			part and is of high quality	
			Other		-	3	Present and comprises significan	nt part, or more, of wetland's
		6b.		lan view) Interspersion	on.		vegetation and is of high qualit	. ·
			ect only one.	ian inon, initial			1.030	
		00.	High (8	5)	N:	arrative D	escription of Vegetation Quality	
				ately high(4)	<del>-</del>	low	Low spp diversity and/or predom	inance of nonnative or
			Moder			1011	disturbance tolerant native spe	
		0		ately low (2)	, -	mod	Native spp are dominant compor	
			Low (1				although nonnative and/or dist	-
			X None (	•			can also be present, and speci	• • • • • • • • • • • • • • • • • • • •
		6c.		invasive plants. Refe	er		moderately high, but generally	•
				l long form for list. A			threatened or endangered spp	
		or d	educt points	for coverage	÷	high	A predominance of native specie	s, with nonnative spp
				ive >75% cover (-5)			and/or disturbance tolerant nat	
			Modera	ate 25-75% cover (-3	)		absent, and high spp diversity	and often, but not always,
		1	Sparse	e 5-25% cover (-1)			the presence of rare, threatene	d, or endangered spp
			Nearly	absent <5% cover (0	) —			
			Absent	t (1)	М	udflat and	Open Water Class Quality	
		6d.	Microtopogra	aphy.		0	Absent <0.1ha (0.247 acres)	
		Sco	re all present	using 0 to 3 scale.	(4	1	Low 0.1 to <1ha (0.247 to 2.47 a	cres)
			▼ Vegeta	ited hummucks/tussu	cks	2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)
		)	Coarse	woody debris >15cr	n (6in)	3	High 4ha (9.88 acres) or more	
		*		ng dead >25cm (10in bian breeding pools		icrotonos	raphy Cover Scale	
				oran preeding pools	<u></u>	0	Absent	
					_	1	Present very small amounts or if	more common
							of marginal quality	more common
					=	2	Present in moderate amounts, but	it not of highest
							quality or in small amounts of h	
					-	3	Present in moderate or greater a	
	1					3	and of highest quality	
	1						and or manipulating	

D

End of Quantitative Rating. Complete Categorization  $\dot{\mathbf{W}}$  orksheets.

### **ORAM Summary Worksheet**

Wether circle answer or Result insert score Narrative Rating Question 1 Critical Habitat If yes, Category 3. NO Question 2. Threatened or Endangered If yes, Category 3. G.M Question 3. High Quality Natural Wetland If yes, Category 3. NO Question 4. Significant bird habitat If yes, Category 3. NO Question 5. Category 1 Wetlands If yes, Category 1. NO Question 6. Bogs If yes, Category 3. Question 7. Fens If yes, Category 3. Question 8a. Old Growth Forest If yes, Category 3. If yes, evaluate for Question 8b. Mature Forested Wetland Category 3; may also be NO 1 or 2. If yes, evaluate for Question 9b. Lake Erie Wetlands -Restricted Category 3; may also be NO 1 or 2. Question 9d. Lake Erie Wetlands -If yes, Category 3 NO Unrestricted with native plants Question 9e. Lake Erie Wetlands -If yes, evaluate for ND Unrestricted with invasive plants Category 3: may also be 1 or 2. Question 10. Oak Openings If yes, Category 3 N() Question 11. Relict Wet Prairies If yes, evaluate for Category 3; may also be 1 or 2. Quantitative Metric 1. Size Rating Metric 2. Buffers and surrounding land use Metric 3. Hydrology 10 Metric 4. Habitat Metric 5. Special Wetland Communities Metric 6. Plant communities, interspersion, microtopography **TOTAL SCORE** Category based on score breakpoints 05 9403 HOTED 5-101

Complete Wetland Categorization Worksheet.

# **Wetland Categorization Worksheet**

Choices	Circle one	2	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO V	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 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 V	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 N	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?	Vetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.
		Final Cate	
Choose o	ne Category	1 Ca	tegory 2 Category 3
		4	

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

Version 5.0	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
	Background Information Scoring Boundary Worksheet	
	Narrative Rating Field Form Quantitative Rating	Ohio EPA, Division of Surface Wate Final: February 1, 2001
	ORAM Summary Worksheet	
	Wetland Categorization Worksheet	

#### Instructions

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

Name: Nathan Noland	*
Date: 8/5/2014	
Affiliation: Stantec	U
Address: 11687 Lebanon Rd ancinnation 45241	
Phone Number: 513-842-8200	
e-mail address:	
Name of Wetland: Wetland 10	
Vegetation Communit(ies):	
HGM Class(es):  Depression	
Location of Wetland: include map, address, north arrow, Jandmarks, distances, roads, etc.	
Project area (Line) &	
Prujed vocation 3	
Sect area (line) &	
	mf. Vernon
	- W
The state of the s	1
16	
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	earth invoid gain
Lat/Long or UTM Coordinate 40, 430540, -82,731998	
USGS Quad Name Chesterville	ma - 4 =
County Morrow	
Township	
Section and Subsection	
Hydrologic Unit Code USO4 000 30 701	
Site Visit None	
National Wetland Inventory Map  Nou P	
Ohio Wetland Inventory Map  N/A	
Delineation report/map See Écological Resource Report	

lame of Wetland: Wetlowd 10	
Vetland Size (acres, hectares): 0.33 ac	
ketch: Include north arrow, relationship with other surface waters	s, vegetation zones, etc.
	Forested
Survey Brul	. 0.03
Survey Boundary	
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Field \"	
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	Forested
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omments, Narrative Discussion, Justification of Category Change	98:

#### **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.	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.	1	

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	YES	NO V
	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?	Wetland should be evaluated for possible	Go to Question 2
	Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has	Category 3 status	
	had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	Go to Question 2	/
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed	YES	NO
	threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	1
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES	NO J
	Natural Heritage Database as a high quality wettand?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	
4	Significant Breeding or Concentration Area. Does the wetland	YES	NO V
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland	Go to Question 5
		Go to Question 5	,
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of	YES	NO
	vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or	Wetland is a Category 1 wetland	Go to Question 6
	no vegetation?	Go to Question 6	1
6	<b>Bogs.</b> 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, 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
	cover of invasive species (see Table 1) is <25%?	Go to Question 7	- /
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	Wetland is a Category 3 wetland	Go to Question 8a
	invasive species listed in Table 1 is <25%?		/
8a	"Old Growth Forest." Is the wetland a forested wetland and is the	Go to Question 8a	NO /
	forest characterized by, but not limited to, the following characteristics:		V
	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	

		W	etland 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	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 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
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 10 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?	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 westem Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

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

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

Site: Wet	land	10	Rater(s): N. Nolaw	d	Date: 8/15/2016
20	Me	etric 1. Wetland A	rea (size).		
max 6 pts, subtot	al Sele	ct one size class and assign scor >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha x) 0.3 to <3 acres (0.12 to <1.	D.2ha) (5 pts) na) (4 pts) I (3 pts) 2ha) (2pts)		
		0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)		ing land use	
1 1			ffers and surround		
max 14 pts. subtot	හ	WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a Intensity of surrounding land use VERY LOW. 2nd growth or LOW. Old field (>10 years) MODERATELY HIGH. Res	Select only one and assign score. En (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around a 10m to <25m (32ft to <82ft) around everage <10m (<32ft) around wetland Select one or double check and a colder forest, prairie, savannah, wild shrub land, young second growth idential, fenced pasture, park, consider pasture, row cropping, mining, c	erimeter (7) wetland perimeter (4) d wetland perimeter (1) id perimeter (0) verage. llife area, etc. (7) forest. (5) ervation tillage, new fallo	ow field. (3)
6 7	Me	tric 3. Hydrology			
max 30 pts. subtot	3c.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lal 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) Modifications to natural hydrological None or none apparent (12)	ce water (3) te or stream) (5) 3d. ly one and assign score.  (2)	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inund Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
72	2	Recovered (7) Recovering (3) Recent or no recovery (1)	ditch  tile dike weir stormwater input	point source (non filling/grading road bed/RR trac dredging other	k
8 15	Me	etric 4. Habitat Al	teration and Develo	pment.	
max 20 pts. subtot	3 4b.	Substrate disturbance. Score on 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)	one and assign score.		90
	ĺ	Habitat alteration. Score one or one or one or one or none apparent (9)	Check all disturbances observed		
subtotal thi	3 s page	Recovered (6)  X Recovering (3)  Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

last revised 1 February 2001 jjm

Site:	Wetle	und	10	Rater	(s): N), A	Joland	Date: 3/15/2016
s	15 subtotal first pa	Ť	etric 5. Spec	ial Wetlan	nde		
0	15	"	tillo o. opec	iai vvetiai	ius.		
max 10 pts.	subtotal	Chec	Bog (10) Fen (10) Old growth forest ( Mature forested w Lake Erie coastal/t Lake Plain Sand P	.10) etland (5) ributary wetland-uributary wetland-r rairies (Oak Oper	estricted hydro		
		- 1	Relict Wet Prairies Known occurrence		eatened or enda	ingered species (10)	
		- [	Significant migrato	ry songbird/water	fowl habitat or	usage (10)	
2	17	Me	Category 1 Wetlanetric 6. Plant			ating (-10) erspersion, microt	opography.
max 20 pts	subtotal	]	V-N V		Vanatation	Community Cours Souls	
max 20 pts.	Subtotal		Vetland Vegetation Con all present using 0 to 3		vegetation 0	Community Cover Scale Absent or comprises < 0.1ha (0.2)	2471 acres) contiguous area
		Γ	Aquatic bed	, coalo	1	Present and either comprises sn	
			Emergent			vegetation and is of moderate	
			Shrub			significant part but is of low qu	
	, )		Forest		2	Present and either comprises sig	
	į		Mudflats			vegetation and is of moderate	quality or comprises a small
		-	Open water			part and is of high quality	Sec. 4 September 100
		Ch h	Other		3	Present and comprises significa	
			orizontal (plan view) Int	erspersion.		vegetation and is of high quali	У
		Selec	t only one. High (5)		Narrative D	escription of Vegetation Quality	
		r	Moderately high(4)		low	Low spp diversity and/or predom	inance of nonnative or
		_	Moderate (3)		07.00	disturbance tolerant native spe	
		2	Moderately low (2)		mod	Native spp are dominant compo	
			Low (1)			although nonnative and/or dist	urbance tolerant native spp
			None (0)			can also be present, and spec	•
			overage of invasive pla		2.5	moderately high, but generally	
			ole 1 ORAM long form f			threatened or endangered spp	
		or de	duct points for coverage		high	A predominance of native specie	• • • • • • • • • • • • • • • • • • • •
		-	Extensive >75% co	` '		and/or disturbance tolerant nat absent, and high spp diversity	
		→ I	Sparse 5-25% cov			the presence of rare, threatene	15 E
	-	3	Nearly absent <5%		+	the presence of rare, threatene	sd, or endangered spp
		1	Absent (1)	00407 (0)	Mudflat and	Open Water Class Quality	
		6d. N	ficrotopography.		0	Absent <0.1ha (0.247 acres)	
			all present using 0 to 3	3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	icres)
			Vegetated hummu	cks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)
	-	2	Coarse woody deb		3	High 4ha (9.88 acres) or more	
	(	_ [	Standing dead >25		22.26 E	7	
		L	Amphibian breeding	g pools		raphy Cover Scale	
					0	Absent	
					1	Present very small amounts or if of marginal quality	more common
					2	Present in moderate amounts, b	ut not of highest
					-	quality or in small amounts of I	
					3	Present in moderate or greater a	

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

Wetland 10

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	No	If yes, Category 3.
	Question 2. Threatened or Endangered Species	No	If yes, Category 3.
	Question 3. High Quality Natural Wetland	No	If yes, Category 3.
	Question 4. Significant bird habitat	NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	No	If yes, Category 1.
	Question 6. Bogs	NO	If yes, Category 3.
	Question 7. Fens	NO	If yes, Category 3.
	Question 8a. Old Growth Forest	No	If yes, Category 3.
	Question 8b. Mature Forested Wetland	100	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	NO	If yes, Category 3
	Question 11. Relict Wet Prairies	NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	6	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	17	Category based on score breakpoints

**Complete Wetland Categorization Worksheet.** 

## **Wetland Categorization Worksheet**



Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions:  Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO 🗸	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (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 P	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?	Ves Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO V	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?	VES  Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.
	_	Final Cate	gory
Choose o	ne Category		tegory 2 Category 3

End of Ohio Rapid Assessment Method for Wetlands.

	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

### **Instructions**

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# Backgrbufidrmation

Name: Nathan Nolan	1	The second second	
Date: 8/15/20			
Affiliation: 5 tantec			
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ame of Wetland: Wetland 11	N
retland Size (acres, hectares): 💍 , 🔿 🗸 🖊	
ketch: Include north arrow, relationship with other surfa	ace waters, vegetation zones, etc.
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	1 Hura
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y when we want	Agricultural Field
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Forested if	5
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,	3
omments, Narrative Discussion, Justification of Catego	ry Changes:
inal score : 23	Category:

**Scoring Boundary Worksheet** 

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.		a 25
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.	$\square$	
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	Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES  Wetland is a Category 3 wetland  Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland  Go to Question 6	NO Go to Question 6
3	<b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
За	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8t

		V	JEHMM.
3b	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	NO Go to Question 9a
Эа	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
∂d	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

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		**/
	Solidago ohioensis	30		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site:	Wet	W	116		Rater(s):	N. Nole	and		Date: 8/1	5/2016
0	0	Me	etric 1.	Wetland A	rea (size).	. ~				
max 6 pts.	subtotal		>50 a 25 to 10 to 3 to < 0.3 to	class and assign scor cres (>20.2ha) (6 pts) <50 acres (10.1 to <2 <25 acres (4 to <10.1 10 acres (1.2 to <4ha <3 acres (0.12 to <1.	0.2ha) (5 pts) ha) (4 pts) ) (3 pts) 2ha) (2pts)				9	
	T	]Ma	X <0.1 a	<0.3 acres (0.04 to < cres (0.04ha) (0 pts) <b>Upland bu</b>		surrour	ndina	land use.		
max 14 pts.	Z subtotal	2a.	Calculate and WIDE MEDINARR VERY Intensity of LOW.	verage buffer width. \$ . Buffers average 50 own. Buffers average NARROW. Buffers average NARROW. Buffers a surrounding land use. LOW. 2nd growth of Old field (>10 years) ERATELY HIGH. Res	Select only one ann (164ft) or more 25m to <50m (82 e 10m to <25m (3 everage <10m (<3 Select one or do older forest, prain, shrub land, your	ad assign score around wetlan to <164ft) aro 2ft to <82ft) a 2ft) around we ouble check ar rie, savannah, ng second grov	Do not deperiment und wetland wetland per land average wildlife a with forest	t double check. ter (7) and perimeter (4) tland perimeter (1) rimeter (0) ge. rea, etc. (7) (5)	w field. (3)	
12	14	М	X HIGH	Urban, industrial, or <b>Hydrology</b>	en pasture, row c				,,	
max 30 pts.	subtotal	4 3c. 1 3e.	High p Other Precip Seasc Peren Maximum w >0.7 ( 0.4 to K <0.4m Modification None	Water. Score all that bH groundwater (5) groundwater (3) bitation (1) bitalintermittent surfariater depth. Select or 27.6in) (3) 0.7m (15.7 to 27.6in) (15.7 in) (1) is to natural hydrologic or none apparent (12 pered (7)	ce water (3) (ce or stream) (5) (de or stream) (5) (de ore and assign (2) (coregime. Score (	n score. one or double	3d. Dura	Part of wetland/up Part of riparian or tition inundation/satt Semi- to permane Regularly inundat Seasonally inund Seasonally satura	in (1) ake and other hum bland (e.g. forest), upland corridor (1) uration. Score one ently inundated/sati ed/saturated (3) ated (2) ated in upper 30cm	complex (1) ) or dbl check. urated (4)
		5	Recei	vering (3) nt or no recovery (1)	tile dike weir stormwat		X	filling/grading road bed/RR trac dredging other		
7	21	J		Habitat Al			elopn	nent.		
max 20 pts.	subtotal	3 4b.	None Recor Recor Recel Habitat dev Excel Very 9 Good Mode Fair (1 Poor	rately good (4) 3) to fair (2)	y one and assign s	score.		×		n n
	Z \	]	Reco	or none apparent (9) vered (6) vering (3) nt or no recovery (1)	Check all disturmowing grazing clearcutti selective woody de toxic policy	ng cutting ebris removal	ved	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal	ē.

last revised 1 February 2001 jjm

Site:	Weth	and	11	Rater	(s):	N.No	Date: 8/15/2016	,
SI	2\	7	·		.1.			
0	21-	Met	ric 5. Spe	cial Wetlan	as.			
max 10 pts.	subtotal	Check	all that apply and s	core as indicated.				
			Bog (10) Fen (10)					
			Old growth fore:	st (10)				
			Mature forested	` ,				
		$\vdash$	_	al/tributary wetland-u al/tributary wetland-re		-		
			_	Prairies (Oak Open		•	37 (-7	
			Relict Wet Prair	ies (10) nce state/federal threa	ntopod 4	or ondon	pared angles (10)	
				atory songbird/water				
<del></del>		, $\sqsubset$	_	land. See Question				
2	23	Met	ric 6. Plar	nt communi	ties,	, inte	erspersion, microtopography.	
max 20 pts.	subtotal		tland Vegetation C		Vege		ommunity Cover Scale	_
		Score a	All present using 0 t	o 3 scale.	-	1	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's	_
		1	Emergent				vegetation and is of moderate quality, or comprises a	
			Shrub				significant part but is of low quality	
		V -	Forest Mudflats			2	Present and either comprises significant part of wetland's	
			Open water				vegetation and is of moderate quality or comprises a small part and is of high quality	
			Other			3	Present and comprises significant part, or more, of wetland's	-
			izontal (plan view)	Interspersion.			vegetation and is of high quality	
		Select	only one. High (5)		Narra	tive Des	scription of Vegetation Quality	
			Moderately high	(4)		low	Low spp diversity and/or predominance of nonnative or	•
		. –	Moderate (3)	(2)	-	nad	disturbance tolerant native species	
		1 3	Moderately low (	(2)	n	nod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp	
			None (0)				can also be present, and species diversity moderate to	
			verage of invasive				moderately high, but generally w/o presence of rare	
			e 1 ORAM long form ct points for covera		-	nigh	threatened or endangered spp A predominance of native species, with nonnative spp	*
		or deda	Extensive >75%	•	'	iigii	and/or disturbance tolerant native spp absent or virtually	
			Moderate 25-75	` '			absent, and high spp diversity and often, but not always,	
	_	(   X	Sparse 5-25% c	, ,			the presence of rare, threatened, or endangered spp	
			Nearly absent < Absent (1)	5% cover (U)	Mudf	lat and	Open Water Class Quality	
		6d. Mic	crotopography.			0	Absent <0.1ha (0.247 acres)	
		Score a	II present using 0 t			1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		1	Vegetated humn	nucks/tussucks ebris >15cm (6in)	-	3	Moderate 1 to <4ha (2.47 to 9.88 acres)	
		1  -		25cm (10in) dbh		3	High 4ha (9.88 acres) or more	
			Amphibian bree	` '	Micro	topogra	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	
		240					quality or in small amounts of highest quality	
	1					3	Present in moderate or greater amounts	
-5-2							and of highest quality	

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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	No	If yes, Category 3.
	Question 2. Threatened or Endangered Species	No	If yes, Category 3.
	Question 3. High Quality Natural Wetland	No	If yes, Category 3.
	Question 4. Significant bird habitat	No	If yes, Category 3.
	Question 5. Category 1 Wetlands	No	If yes, Category 1.
	Question 6. Bogs	No	If yes, Category 3.
	Question 7. Fens	No	If yes, Category 3.
	Question 8a. Old Growth Forest	No	If yes, Category 3.
	Question 8b. Mature Forested Wetland	Юo	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	No	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	No	If yes, Category 3
	Question 11. Relict Wet Prairies	No	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	miles The
	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	7	
	Metric 5. Special Wetland Communities	0	VI Promise Comment
	Metric 6. Plant communities, interspersion, microtopography	2	TO POST OF THE PARTY OF THE PAR
	TOTAL SCORE	<b>Z</b> 3	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:  Varrative Rating Nos. 2, 3, 7, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO 🗸	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-
Did you answer "Yes" to any f the following questions:  Jarrative Rating Nos. 1, 8b, b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO V	categorized by the ORAM  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.
old you answer "Yes" to	YES Wetland is categorized as a Category 1 wetland	NO V	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 all within the scoring range f a Category 1, 2, or 3 retland?	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 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 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).
voes the wetland otherwise whibit moderate OR superior ydrologic OR habitat, OR ecreational functions AND he wetland was not ategorized as a Category 2 retland (in the case of noderate functions) or a lategory 3 wetland (in the lase of superior functions) by	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.

End of Ohio Rapid Assessment Method for Wetlands.

Version 5.0	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization				
	Background Information Scoring Boundary Worksheet				
	Narrative Rating	Ohio EPA, Division of Surface Water Final: February 1, 2001			
	Field Form Quantitative Rating ORAM Summary Worksheet				
	Wetland Categorization Worksheet				

### **Instructions**

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# Background Information

Name: Nathan Nola	ud		14 5 11	
Date: 8/15/2016				1 12
Affiliation: Stantec			W	
Address: 11687 Leban	m DI A	ainnali 17	H 45741	
Phone Number: 513-847		NOTHING !	19 011	
was and a different		Ĭ		
Name of Wetland: We	no landas to	inter.com		
1/				
HGM Class(as):				
Depress				
Location of Wetland: include map, a	iddress, north arrow,	, landmarks, distanc	es, roads, étc.	
	/		6.1	
	12		Marino Co.	
	- Pruje	ct area (line)	Mar	
1	Markey	A Conce		Mt. Vernon
	Cocur	239		- V/
	<del>                                     </del>		Knog	*
			18	
	59			
	a my albanica		an morn all the g	nin esticker id ynte
Lat/Long or UTM Coordinate	431324,-5	82,73532	9	
USGS Quad Name	erville	للك حرجوب		
County Morrow	1 7 000		1 1 1	
Township Marengo				
Section and Subsection				
	0003020	71		
Site Visit None				
National Wetland Inventory Map	one			
Ohio Wetland Inventory Map	A	· · · · · · · · · · · · · · · · · · ·		
Soil Survey Co; Condit Si	It Loam, o	-1% slopes	-	
Delineation report/map See E	It Loam, o	source Repo	rt	

Name of Wetland: Wetland 12	
Vetland Size (acres, hectares):	4
Sketch; Include north arrow, relationship with other surface waters	, vegetation zones, etc.
	7
Forested	)
Y POICE	1
7.	- //
	1 1
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N /	Ay Field
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Forested	
omments, Narrative Discussion, Justification of Category Chang	os:
ommonia, numumo biocussion, cusumounon en cutegory emang	
See Ecological Reson	THE KERST
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*	
and the second second second	
inal acore : 7	Catagony
inal score: 7\	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.		
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?	Wetland is a Category 3 wetland.  Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100	YES Wetland is a Category 3 wetland.	NO 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	

Mature forested wetlands. Is the wetland a forested wetland with YES 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally Wetland should be Go to Question 9a diameters greater than 45cm (17.7in) dbh? evaluated for possible Category 3 status. Go to Question 9a 9a Lake Erie coastal and tributary wetlands. Is the wetland located at YES NO an elevation less than 575 feet on the USGS map, adjacent to this 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 Are Lake Erie water levels the wetland's primary hydrological influence, 9c 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 "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 3 wetland Go to Question 10 9e Does the wetland have a predominance of non-native or disturbance YES NO tolerant native plant species within its vegetation communities? Wetland should be Go to Question 10 evaluated for possible Category 3 status Go to Question 10 10 Lake Plain Sand Prairies (Oak Openings) Is the wetland located in YES Lucas, Fulton, Henry, or Wood Counties and can the wetland be Wetland is a Category characterized by the following description: the wetland has a sandy 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 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 dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Wetland should be Complete Counties), Sandusky Plains (Wyandot, Crawford, and Marion 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

Rating

Montgomery, Van Wert etc.).

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensi
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricto
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellito
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratu
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicate
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflore
0	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceun
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinate
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		5,500,000
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: U	Jetlu	nd 12	Rater(s): N. Nolum	d	Date: 岁/15/2016
(	1	Metric 1. Wetland A	rea (size).	6	
max 6 pts	subtotal	Select one size class and assign sco			
	1	25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha	ha) (4 pts)		
	,	0.3 to <3 acres (0.12 to <1.2 to <0.12 to <1.2 to <0.14 to <0.3 acres (0.04 to <	2ha) (2pts)		
		<0.1 acres (0.04ha) (0 pts)			
2	3	Metric 2. Upland bu			
max 14 pts.	subtotal		m (164ft) or more around wetland pe	erimeter (7)	
		NARROW. Buffers averag	25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) aroun	d wetland perimeter (1)	
		2b. Intensity of surrounding land use	average <10m (<32ft) around wetlan . Select one or double check and a r older forest, prairie, savannah, wild	verage.	
		LOW. Old field (>10 years	r dider lotest, prairie, savarinari, wild ), shrub land, young second growth f sidential, fenced pasture, park, cons	forest. (5)	w field (2)
		HIGH. Urban, industrial, o	pen pasture, row cropping, mining, c	ervation tillage, new fallo onstruction. (1)	w neid. (3)
12	15	Metric 3. Hydrology	/.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5)	apply. 3b.	Connectivity. Score all t	hat apply.
		Other groundwater (3) Precipitation (1)	l.	Between stream/la	ake and other human use (1) pland (e.g. forest), complex (1)
		Seasonal/Intermittent surfa Perennial surface water (la	ce water (3)	Part of riparian or	upland corridor (1) ration. Score one or dbl check.
		3c. Maximum water depth. Select or >0.7 (27.6in) (3)	nly one and assign score.		ntly inundated/saturated (4)
		0.4 to 0.7m (15.7 to 27.6in) <a href="0.4">&lt;0.4m (&lt;15.7in) (1)</a>		Seasonally inunda	
		3e. Modifications to natural hydrolog  None or none apparent (12		ck and average.	
		Recovered (7) Recovering (3)	ditch	point source (nons filling/grading	stormwater)
		Recent or no recovery (1)	dike weir	road bed/RR track	c
		1	stormwater input	other	
7	22	Metric 4. Habitat Al	teration and Develo	pment.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score on None or none apparent (4)	e or double check and average.		
		Recovered (3) Recovering (2)			
		Recent or no recovery (1) 4b. Habitat development. Select only	y onc and assign score.		
		Excellent (7) Very good (6)	<del>-</del>		
		Good (5) Moderately good (4)			
		Fair (3) Poor to fair (2)	×		
		Poor (1) 4c. Habitat alteration. Score one or	double check and average.		
		None or none apparent (9) Recovered (6)	Check all disturbances observed mowing	shrub/sapling rem	oval
12		Recovering (3) Recent or no recovery (1)	grazing clearcutting	herbaceous/aquat sedimentation	
	72		selective cutting woody debris removal	dredging farming	
su	blotal this pa	<b>∐</b> ige	toxic pollutants	nutrient enrichme	nt
last revised	1 Februa	ry 2001 jjm			

Site:	Wed	Ha	nd	12	R	ater(s)	: N·V	Joland	Date: 8/15/2016
	22 subtotal first	_	lotri	o 5	Special Wat	tland			
0	122	IN	ıeuı	C 5.	Special Wet	lianus	>.		
max 10 pts.	subtotal	Ch		that app Bog (10 Fen (10	'	ted.			
				Old grov Mature	vth forest (10) forested wetland (5)				
	(	כ		Lake Er Lake Pla Relict W	ie coastal/tributary wet ie coastal/tributary wet ain Sand Prairies (Oak /et Prairies (10) occurrence state/feder	tland-restr Openings	icted hydro s) (10)	logy (5)	
				Significa	int migratory songbird/ y 1 Wetland. See Que	/water fow	l habitat or	usage (10)	
-1	21		letri	с 6.	Plant comm			erspersion, microt	opography.
max 20 pts.	subtotal				tation Communities.	<u>v</u>		Community Cover Scale	
		500		resent t Aquatic	ising 0 to 3 scale.	-	0	Absent or comprises <0.1ha (0.2 Present and either comprises sn	The production Contemp
			_	Emerge				vegetation and is of moderate	
				Shrub				significant part but is of low qu	0700
			-	Forest		-	2	Present and either comprises sig	and the second s
		1	-	Mudflats			_	vegetation and is of moderate	-
		,		Open wa				part and is of high quality	quality of comprises a sitial
			_	Other	2(6)	-	3	Present and comprises significant	nt nort or more of wotlandle
		6h			n view) Interspersion.		3		
					ii view) interspersion.	-		vegetation and is of high qualit	у
		Sei	ect only				Inmetive D	anasimtian of Vanatatian Overlity	
			-	High (5)	al. High (4)	IN IN		escription of Vegetation Quality	
			-		ely high(4)		low	Low spp diversity and/or predom	
				Moderat		10-	naccal	disturbance tolerant native spe	
		0			ely low (2)		mod	Native spp are dominant compo	
			-	Low (1)				although nonnative and/or dist	• • • • • • • • • • • • • • • • • • • •
		_		None (0)				can also be present, and speci	-
					vasive plants. Refer			moderately high, but generally	
					ong form for list. Add	))=		threatened or endangered spp	
		or d	-		r coverage		high	A predominance of native specie	
					e >75% cover (-5)			and/or disturbance tolerant nat	
		7			e 25-75% cover (-3)			absent, and high spp diversity	
	-	-3	-		5-25% cover (-1)	_		the presence of rare, threatene	ed, or endangered spp
			-	,	bsent <5% cover (0)			4.2011/2014/6102	in the second
				Absent (	,	, N		Open Water Class Quality	
				opograp		-	0	Absent <0.1ha (0.247 acres)	
		Sco	$\overline{}$		sing 0 to 3 scale.	_	1	Low 0.1 to <1ha (0.247 to 2.47 a	
			_	•	ed hummucks/tussucks	_	2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)
		1	-		woody debris >15cm (6		3	High 4ha (9.88 acres) or more	
			_		dead >25cm (10in) di			8	
				Amphibi	an breeding pools	N	licrotopog	raphy Cover Scale	
							0	Absent	
						98	1	Present very small amounts or if of marginal quality	more common
						-	2	Present in moderate amounts, but	
					- 1	_		quality or in small amounts of h	nighest quality
	1						3	Present in moderate or greater a	mounts

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

			Notland 12
		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	No	If yes, Category 3.
	Question 2. Threatened or Endangered Species	Nn	If yes, Category 3.
	Question 3. High Quality Natural Wetland	No	If yes, Category 3.
	Question 4. Significant bird habitat	No	If yes, Category 3.
	Question 5. Category 1 Wetlands	No	If yes, Category 1.
	Question 6. Bogs	No	If yes, Category 3.
	Question 7. Fens	No	If yes, Category 3.
	Question 8a. Old Growth Forest	No	If yes, Category 3.
	Question 8b. Mature Forested Wetland	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	No	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	$\mathcal{N}_0$	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	No	If yes, Category 3
	Question 11. Relict Wet Prairies	No	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
9	Metric 2. Buffers and surrounding land use	7	illegation of the
	Metric 3. Hydrology	12	
	Metric 4. Habitat	7	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	-1	an Special Printer of the
	TOTAL SCORE	21	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

## Wetland Categorization Worksheet

Wetland 12

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

End of Ohio Rapid Assessment Method for Wetlands.

	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization		
Version 5.0	Background Information Scoring Boundary Worksheet		
	Narrative Rating	Ohio EPA, Division of Surface Wat	
	Field Form Quantitative Rating	Final: February 1, 2001	
	ORAM Summary Worksheet Wetland Categorization Worksheet		

#### Instructions

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

Name: Nathan Noland
Date: 8/15/2016
Affiliation: Stantec
Address: 11687 Lebanon Rd ancinnation 45241
Phone Number: 513-842-8200
e-mail address:
Name of Wetland: 1 10 117
Vegetation Communit(ies): PEM
HGM Class(es): Riverine
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Project area (line)
Project on (1)
- Project area (cine) & Mil. Vernon
10.10
The state of the s
1è
Lat/Long or UTM Coordinate
Lat/Long or UTM Coordinate 40.451797 -82.737639
Mesterville
Township AA
Section and Subsection A 1/1
N/A
Site Visit
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey A T a A A A A A A A A A A A A A A A A A
Delineation report/map See Ecological Resource Report

and Size (acres, hectares):	30.13ac	
ch: Include north arrow, re	lationship with other surface wa	aters, vegetation zones, etc.
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1 1	Tean	
ments, Narrative Discussion	on, Justification of Category Ch	anges:
<u> </u>	Ecological R	ecano Ropart
Je e	ecological r	counct -day
W.		

### **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.		

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

### **Narrative Rating**

Wetherd 13

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 printingly by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of	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?	Wetland should be evaluated for possible	Go to Question 2
	Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has	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).		
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	/
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES	NO V
	Natural Hollago Balabaso do a lligil quality from the	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	YES	NO V
	waterfowl, neotropical songbird, or shorebird concentration areas?	Wetland is a Category 3 wetland	Go to Question 5
		Go to Question 5	
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of	YES	NO V
	vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea, Lythrum salicaria,</i> or <i>Phragmites australis,</i> or 2) an acidic pond created or excavated on mined lands that has little or	Wetland is a Category 1 wetland	Go to Question 6
	no vegetation?	Go to Question 6	-
6	<b>Bogs.</b> Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses,	YES	NO V
	particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
_		Go to Question 7	NOT
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free	YES	NO V
	flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland	Go to Question 8a
		Go to Question 8a	NO.
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence	YES Wetland is a Category 3 wetland.	NO Go to Question 8t
	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	Go to Question 8b	

Wetland 13

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 V
	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	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
9c	Aro Loko Erio water lovele the wellendle primer budgelesisel influence	Go to Question 10	100
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 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	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 sartwellin
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca ==	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: 📈	etle	and 13	Rater(s): W. Dolan	0	Date: 2/15/2016
	1	Metric 1. Wetland A	rea (size).		•
max 6 pts. s	subtotal	Select one size class and assign score  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20  10 to <25 acres (4 to <10.1 t  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)	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)		
2	3	Metric 2. Upland bu	ffers and surroundi	ng land use.	
max 14 pts. s		MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a  2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years), MODERATELY HIGH. Res	n (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around verage <10m (<32ft) around wetlan Select one or double check and a older forest, prairie, savannah, wild shrub land, young second growth fidential, fenced pasture, park, conse	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) orest. (5) ervation tillage, new fallo	w field₊ (3)
12,5	5.5	Metric 3. Hydrology	en pasture, row cropping, mining, co	onstruction. (1)	
	subtotal V	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 on >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)  None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	te water (3) e or stream) (5) ly one and assign score.  (2) c regime. Score one or double check	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inund 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) ated (2) tted in upper 30cm (12in) (1) stormwater)
6 2	21.5	Metric 4. Habitat Alt			
max 20 pts. s	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) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or development. Select only Recovered (6) Recovering (3) Recent or no recovery (1)	one and assign score.	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

last revised 1 February 2001 jjm

Site: [	Netlen	NO	3 1/4	R	ater(s):	NIK	Joland Date: 8/15/201	6
St	ZI,S	]		4				
0	21.5	Me	etric 5.	Special We	tlands.			
max 10 pts.	subtotal	Che	ck all that app Bog (10 Fen (10)		ated.			
			Mature f Lake Eri Lake Eri	orth forest (10) forested wetland (5) forested wetland (5) fore coastal/tributary we fore coastal/tributary we	etland-restrict	ed hydrolo		AT:
			Relict W Known o Significa	ain Sand Prairies (Oa let Prairies (10) occurrence state/fede ant migratory songbird y 1 Wetland, See Qu	ral threatened l/water fowl h	d or endar abitat or u	usage (10)	
-3	18.5	Me	etric 6.	Plant comn	nunities	s, inte	erspersion, microtopography.	
max 20 pts.	subtotal	6a.	Wetland Vege	tation Communities.	Veg	etation C	Community Cover Scale	
			e all present ι	ising 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	
			Emerge	nt			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	
		0	Mudflats				vegetation and is of moderate quality or comprises a small	
		U	Open wa	ater			part and is of high quality	
		2 3	Other		_	3	Present and comprises significant part, or more, of wetland's	_
		6b		n view) Interspersion			vegetation and is of high quality	
			ct only one.	in thosay intoroporoion		_	Togotation and to or mg. quanty	_
		OCIC	High (5)		Nar	rativo Do	escription of Vegetation Quality	
				ely high(4)	- Itali	low	Low spp diversity and/or predominance of nonnative or	-
						IOW		
			Moderat		-		disturbance tolerant native species	_
		0		ely low (2)		mod	Native spp are dominant component of the vegetation,	
			Low (1)				although nonnative and/or disturbance tolerant native spp	
		¥ 3	None (0				can also be present, and species diversity moderate to	
				vasive plants. Refer			moderately high, but generally w/o presence of rare	
				ong form for list. Add	i		threatened or endangered spp	
		or de	educt points for	r coverage		high	A predominance of native species, with nonnative spp	
			Extensiv	e >75% cover (-5)			and/or disturbance tolerant native spp absent or virtually	
			Moderat	e 25-75% cover (-3)			absent, and high spp diversity and often, but not always,	
		5	Sparse :	5-25% cover (-1)			the presence of rare, threatened, or endangered spp	
			Nearly a	bsent <5% cover (0)	17:			
			Absent (	1)	Mu	dflat and	Open Water Class Quality	
		6d.	Microtopograp	hy.	-	0	Absent <0.1ha (0.247 acres)	
		Scor	e all present u	ising 0 to 3 scale.	-	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
			Vegetate	ed hummucks/tussuc	ks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
		1		woody debris >15cm		3	High 4ha (9.88 acres) or more	
		9	Standing	dead >25cm (10in) an breeding pools	dbh		raphy Cover Scale	
		ė.				0	Absent	
					-	ĭ	Present very small amounts or if more common of marginal quality	
					-	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	
					-	3	Present in moderate or greater amounts	
	1						and of highest quality	

18,5

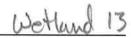
End of Quantitative Rating. Complete Categorization Worksheets.

### **ORAM Summary Worksheet**

Wetland 13 circle answer or insert Result score Narrative Rating Question 1 Critical Habitat If yes, Category 3. NO Question 2. Threatened or Endangered If yes, Category 3. NO Species Question 3. High Quality Natural Wetland If yes, Category 3. NO Question 4. Significant bird habitat If yes, Category 3. NO Question 5. Category 1 Wetlands If yes, Category 1. Na Question 6. Bogs If yes, Category 3. ND Question 7. Fens If yes, Category 3. NO Question 8a. Old Growth Forest If yes, Category 3. NO Question 8b. Mature Forested Wetland If yes, evaluate for Category 3; may also be NO 1 or 2. Question 9b. Lake Erie Wetlands -If yes, evaluate for Restricted Category 3; may also be NO 1 or 2. Question 9d. Lake Erie Wetlands -If yes, Category 3 NO Unrestricted with native plants Question 9e. Lake Erie Wetlands -If yes, evaluate for Unrestricted with invasive plants Category 3; may also be NO 1 or 2. Question 10. Oak Openings If yes, Category 3 NO Question 11. Relict Wet Prairies If yes, evaluate for Category 3; may also be NO 1 or 2. Quantitative Metric 1. Size 1 Rating Metric 2. Buffers and surrounding land use Metric 3. Hydrology 12,5 Metric 4. Habitat 6 Metric 5. Special Wetland Communities 0 Metric 6. Plant communities, interspersion, microtopography Category based on score **TOTAL SCORE** breakpoints 18.5

**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,	YES Wetland is categorized as a	NO V	Is quantitative rating score /ess 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
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:  Narrative Rating Nos. 1, 8b, 9b, 9e, 11	Vetland should be evaluated for possible Category 3 status	NO V	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 V	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?	Vetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO V	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, 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 o	ne Category	Final Cate	gory tegory 2 Category 3
I Leiving Street			- January V

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

	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

#### **Instructions**

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

Name: Nathan Nolar	nd	
Date: 2/16/2014		
Affiliation: Stantec		
Address: 11687 Leband	n Rd ancinnation 45241	
Phone Number: 513-842		
	olandastantee.com	
	tland 14	
	EM/PFO	
HGM Class(es): River	ine	3
	ldress, north arrow, landmarks, distances, roads, etc.	
	Signature (Line)	
	- Project	
	- Project area (Line) &	Mt. Vernon
	wetland 29	/
	The state of the s	*
	18	
Lat/Long or UTM Coordinate	434390, -82.752730	SHEET SHEET SHEET
USGS Quad Name Maren		
County Morrow		
	Narengo)	
Section and Subsection	, , , , , , , , , , , , , , , , , , ,	
Hudrologic Unit Code	00011302	
Site Visit None		
National Wetland Inventory Map	une	
Ohio Wetland Inventory Map	+	
Soil Survey Co: Condil	ological Resource Report	
Delineation report/map	, , , D D - L	

Name of Wetland:	Wetland 14	
Wetland Size (acres,	hectares): $\approx$ 3.3 ac	
	n arrow, relationship with other surface	Cont.  Co
Comments, Narrative	Fores	sted
Final score :	61.5 >	Category:

**Scoring Boundary Worksheet** 

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

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.		
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	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.		

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

### **Narrative Rating**

Wetland 14

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 primally by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

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

Wetland 14

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 1
	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	NO Control 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
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 10 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.	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

Wetland 14

Table 1. Characteristic plant species

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	- Carex sartwellii
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	- '	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
14	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		77.
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: Wetland	1 14	Rater(s):	N. Nolar	d	Date: 8/16/2016
Z Z Me	etric 1. Wetland	∖rea (size)			
max 6 pts. subtotal Selec	ct one size class and assign soc >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 <' 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) I.2ha) (2pts) <0.12ha) (1 pt)			
10 17 Me	etric 2. Upland bu	,	surroundi	ng land use.	
ч	Calculate average buffer width.  WIDE. Buffers average 5  MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth LOW. Old field (>10 years MODERATELY HIGH. Re HIGH. Urban, industrial, of	Om (164ft) or more e 25m to <50m (82 ge 10m to <25m (3 average <10m (< e Select one or dor older forest, prais), shrub land, you saidential, fenced p	around wetland pe to <164ft) around 32ft to <82ft) around 32ft) around wetlan- louble check and av- rie, savannah, wild ng second growth f lasture, park, conse	rimeter (7) wetland perimeter (4) d wetland perimeter (1) d perimeter (0) verage. life area, etc. (7) orest. (5) ervation tillage, new fallo	
21.5 35 Me	etric 3. Hydrolog			(,,	
6 3c.	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surf Perennial surface water (I. Maximum water depth. Select of the select of t	ace water (3) ake or stream) (5) only one and assign (2)	3d, n score.	Part of wetland/u Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inundat Seasonally saturation	ain (1) //ake and other human use (1) //ake and other human use (1) //pland (e.g. forest), complex (1) r upland corridor (1) //uration. Score one or dbl check ently inundated/saturated (4) //ted/saturated (3)
9.5	Recovered (7) Recovering (3) Recent or no recovery (1)	ditch tile		point source (nor filling/grading road bed/RR trac dredging other_	
15 48.5 ME	etric 4. Habitat A	Iteration a	nd Develo	pment.	
3.5	Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select or Excellent (7) Very good (6) X Good (5) Moderately good (4)	)	• 8		x
55	Fair (3) Poor to fair (2) Poor (1)				
4c.	Habitat alteration. Score one or None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all distumowing grazing clearcutt	irbances observed ing cutting ebris removal	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal

Site:	Wetland	. 14	Rate	er(s):	N.A	loland	Date: 8/16/2016
()	48.5 ubtotal first page	etric 5.	Special Wetla	nds.			
max 10 pts.		ck all that app	oly and score as indicated.				
		Bog (10) Fen (10) Old gro Mature	0)	d-unrestr	ricted hyd	rology (10)	
		Lake E Lake P	rie coastal/tributary wetlan lain Sand Prairies (Oak Op	d-restrict	ed hydrol		
		Known Signific	Vet Prairies (10) occurrence state/federal that migratory songbird/wa	ter fowl h	nabitat or	usage (10)	
13	61.5 M		Plant commu			erspersion, microto	opography.
max 20 pls.	subtotal 6a.	Wetland Veg	etation Communities.	Ve	getation	Community Cover Scale	
	Sco		using 0 to 3 scale.	-	0	Absent or comprises <0.1ha (0.2	
		Aquation			1	Present and either comprises sm	-
		Z Emerge	ent			vegetation and is of moderate	
	/	₹ Shrub		-	2	significant part but is of low qua Present and either comprises sig	
	6	Mudfla	te.		2	vegetation and is of moderate	
		Open v				part and is of high quality	quality of comprises a small
		Other	valei		3	Present and comprises significant	at next, or more, of wetland's
	6h		an view) Interspersion.		0	vegetation and is of high qualit	
		ect only one.	an view) interspersion.			vegetation and is or might quality	
	Seit	High (5	1)	Na	rrative D	escription of Vegetation Quality	
		_ ` `	ately high(4)	140	low	Low spp diversity and/or predom	inance of nonnative or
	7	X Modera			1011	disturbance tolerant native spe	
	3	1	ately low (2)	_	mod	Native spp are dominant compor	
		Low (1			9.11.59.50	although nonnative and/or dist	
		None (	<b>'</b>			can also be present, and speci	
	6c.		invasive plants. Refer			moderately high, but generally	-
			l long form for list. Add			threatened or endangered spp	
	or d	leduct points	for coverage		high	A predominance of native specie	es, with nonnative spp
		Extens	ive >75% cover (-5)			and/or disturbance tolerant nat	ive spp absent or virtually
	-3		ate 25-75% cover (-3)			absent, and high spp diversity	
			: 5-25% cover (-1)	_		the presence of rare, threatene	ed, or endangered spp
			absent <5% cover (0)			The second secon	
		Absent	1 /	Mu		Open Water Class Quality	
		Microtopogra	• 17		0	Absent <0.1ha (0.247 acres)	
	Sco		using 0 to 3 scale.	_	1	Low 0.1 to <1ha (0.247 to 2.47 a	
		_	ated hummucks/tussucks	, -	2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)
	7		woody debris >15cm (6in		3	High 4ha (9.88 acres) or more	
	1		ng dead >25cm (10in) dbh bian breeding pools		crotones	raphy Cover Scale	
		> Willbill	Dian preeding pools	1411	0 0	Absent	
				-	1	Present very small amounts or it	more common
						of marginal quality	
				-	2	Present in moderate amounts, b	ut not of highest
					_	quality or in small amounts of	
				-	3	Present in moderate or greater a	
	_						

61.5

End of Quantitative Rating. Complete Categorization Worksheets.

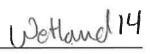
## **ORAM Summary Worksheet**

Wetland 14

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	No	If yes, Category 3.
	Question 2. Threatened or Endangered Species	No	If yes, Category 3.
	Question 3. High Quality Natural Wetland	No	If yes, Category 3.
	Question 4. Significant bird habitat	No	If yes, Category 3.
	Question 5. Category 1 Wetlands	No	If yes, Category 1.
	Question 6. Bogs	No	If yes, Category 3.
	Question 7. Fens	No	If yes, Category 3.
	Question 8a. Old Growth Forest	No	If yes, Category 3.
	Question 8b. Mature Forested Wetland	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	No	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	No	If yes, Category 3
	Question 11. Relict Wet Prairies	No	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	THE SECOND SECOND
9	Metric 2. Buffers and surrounding land use	16	
	Metric 3. Hydrology	21.5	
	Metric 4. Habitat	15	
	Metric 5. Special Wetland Communities	0	The state of the s
	Metric 6. Plant communities, interspersion, microtopography	16	
	TOTAL SCORE	61.5	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: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO NO	Is quantitative rating score less than the Category 2 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 V	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 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?	Ves Wetland is assigned to the appropriate category based on the scoring range	NO F	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 V	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.

	Fin		
Choose one	Category 1	Category 2	/ Category 3

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

	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization				
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating	Ohio EPA, Division of Surface Water			
	Field Form Quantitative Rating ORAM Summary Worksheet	Final: February 1, 2001			
	Wetland Categorization Worksheet				

#### **Instructions**

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

## **Background Information**

Name: Nathan Noland	
Date: 9/16/2016	ê
Affiliation: Stantec	
Address: 11687 Lebanon Rd ancinnation 45241	
Phone Number: 513-842-8200	
e-mail address: nathan, no landos tantec.com	
Name of Wetland: Wetland 16	
Vegetation Communit(ies):	
HGM Class(es):	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
Project area (Line) &	
- S/ Project	
pollow 229	60 V
wellow	Mt. Vernon
	- W
The state of the s	<b>/</b> /
18	
	and the Lorentz against
Lat/Long or UTM Coordinate 40,435456, -82.759971	
USGS Quad Name  Marengo	× ×
County Morrow	71
Township Marena O	
Section and Subsection	
Hydrologic Unit Code 05060001130 Z	
Site Visit None	
National Wetland Inventory Map	
Ohio Wetland Inventory Map  N/A	
Delineation report/map See Ecological Resource Report	
Delineation report/map	

ame of Wetland: Wetle	≈ 0.12 mc ationship with other surface waters, vegetation zones, etc.
etland Size (acres, hectares):	% 0.12 ac
ketch: Include north arrow, rela	ationship with other surface waters, vegetation zones, etc.
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mments, Narrative Discussion	, Justification of Category Changes:
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Dee	Ecological Resource Report

**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.		
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.		

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	- W
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?	Wetland is a Category 3 wetland.  Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES  Wetland is a Category 3 wetland  Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES  Wetland is a Category 1 wetland  Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland Go to Question 7	NO V Go to Question 7
<u>7</u>	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5,5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES  Wetland is a Category 3 wetland.  Go to Question 8b	NO V 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
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 9a 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	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricto
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherode
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	- Carex sartwell
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrews
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratu
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicat
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflor
	Parnassia glauca	Schechzeria palustris		Lythrum alatu
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianui
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceu
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinat
	Salix myricoides	Woodwardia virginica		Solidago riddell
	Salix serissima	Xyris difformis		
	Sòlidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: Wetlan	d 16	Rater(s): N. Noland	Da	ate: 8/16/2016
\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Metric 1. Wetland A	rea (size).	41-	-x 19:
max 6 pts. subtotal S	elect one size class and assign sco			
	>50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2			
γ	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 <	2ha) (2pts)		
	<0.1 acres (0.04ha) (0 pts)			
2 4	-	iffers and surroundi		
max 14 pts. subtotal 2		Select only one and assign score. D m (164ft) or more around wetland pe		
		25m to <50m (82 to <164ft) around e 10m to <25m (32ft to <82ft) around		
2	VERY NARROW. Buffers	average <10m (<32ft) around wetlan . Select one or double check and a	d perimeter (0)	
	VERY LOW. 2nd growth o	r older forest, prairie, savannah, wild ), shrub land, young second growth f	ife area, etc. (7)	
4	MODERATELY HIGH. Re	sidential, fenced pasture, park, conse pen pasture, row cropping, mining, co	rvation tillage, new fallow fie	eld. (3)
9 15 N	Metric 3. Hydrology	<i>/</i> .		
max 30 pts subtotal 3	a. Sources of Water. Score all that	apply. 3b.	Connectivity. Score all that	
	High pH groundwater (5) Other groundwater (3)	T		and other human use (1)
1	Precipitation (1) Seasonal/Intermittent surfa	ice water (3)	Part of wetland/upland	d (e.g. forest), complex (1) and corridor (1)
3	Perennial surface water (la c. Maximum water depth. Select o			on. Score one or dbl check. inundated/saturated (4)
	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in	) (2)	Regularly inundated/s Seasonally inundated	
3	<0.4m (<15.7in) (1)	ic regime. Score one or double chec	Seasonally saturated	in upper 30cm (12in) (1)
	None or none apparent (12	2) Check all disturbances observed		
5	resourcing (s)	ditch tile	point source (nonstore filling/grading	nwater)
	Recent or no recovery (1)	dike weir	road bed/RR track dredging	
		stormwater input	other	
10 25	Metric 4. Habitat Al	teration and Develo	pment.	
max 20 pts. subtotal 4	Substrate disturbance. Score or None or none apparent (4)			
	Recovered (3)			
3	Recent or no recovery (1) b. Habitat development. Select on	ly one and agaign score		
4	Excellent (7)	y one and assign score.		
	Very good (6) Good (5)			
2,5	Moderately good (4) Fair (3)			
	Poor (1)			
4	c. Habitat alteration. Score one or	Contraction of the Contraction o		
4.5	None or none apparent (9) Recovered (6)	mowing	shrub/sapling remova	
	Recovering (3) Recent or no recovery (1)	grazing clearcutting	herbaceous/aquatic b	ed removal
75		selective cutting woody debris removal	dredging farming	
subtotal this page		toxic pollutants	nutrient enrichment	

last revised 1 February 2001 jjm

Site:	Wet	-land	16	Rater(s):	N.N	loland	Date: 9/16/2016
Su	25 btotal first p	age					
0	25	Met	tric 5. Special V	Vetlands.			
max 10 pts.	subtotal	Check	all that apply and score as in	ndicated.			
			Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory son	y wetland-unrestr y wetland-restrict (Oak Openings) ( federal threatened gbird/water fowl h	ed hydrolo (10) d or endal abitat or t	ogy (5) ngered species (10) usage (10)	
2	27	Met				erspersion, microto	pography.
max 20 pts.	subtotal		etland Vegetation Communit		etation C	Community Cover Scale	
		Score a	all present using 0 to 3 scale		0	Absent or comprises <0.1ha (0.24	
			Aquatic bed  Emergent		1	Present and either comprises small vegetation and is of moderate q	•
		- 4	Shrub			significant part but is of low qua	and the control of th
		1 1	Forest	-	2	Present and either comprises sign	
			Mudflats			vegetation and is of moderate of	-
			Open water			part and is of high quality	•
			Other	_	3	Present and comprises significant	part, or more, of wetland's
			rizontal (plan view) Intersper	sion.		vegetation and is of high quality	<u></u>
		Select	only one.			. 144	
		-	High (5)	Nar	100000	scription of Vegetation Quality	
		-	Moderately high(4)		low	Low spp diversity and/or predomin	
			Moderate (3) Moderately low (2)		mod	Native spp are dominant component	71444
		1 1	Low (1)		IIIOG	although nonnative and/or distu	
		1	None (0)			can also be present, and specie	
		6c. Co	verage of invasive plants. R	efer		moderately high, but generally v	•
			e 1 ORAM long form for list.			threatened or endangered spp	·
		or dedu	ct points for coverage	*	high	A predominance of native species	s, with nonnative spp
			Extensive >75% cover (-5	5)		and/or disturbance tolerant nativ	ve spp absent or virtually
		× =	Moderate 25-75% cover (	-3)		absent, and high spp diversity a	nd often, but not always,
		-1 2	Sparse 5-25% cover (-1)			the presence of rare, threatened	d, or endangered spp
			Nearly absent <5% cover	` '	10-4		
		Cd Mi	Absent (1)	Muc		Open Water Class Quality	
			crotopography. all present using 0 to 3 scale	5	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)	root l
		3000	Vegetated hummucks/tus		2	Moderate 1 to <4ha (2.47 to 9.88	
		, -	Coarse woody debris >15		3	High 4ha (9.88 acres) or more	acicsj
		1	Standing dead >25cm (10			The state of the s	
			Amphibian breeding pool		rotopogr	aphy Cover Scale	
					0	Absent	
				79	1	Present very small amounts or if r of marginal quality	nore common
				-	2	Present in moderate amounts, but quality or in small amounts of hi	
				-	3	Present in moderate or greater an	
					-		

27

End of Quantitative Rating. Complete Categorization Worksheets.

## **ORAM Summary Worksheet**

Wetland 16

		circle answer or insert	Result
Narrative Rating	Question 1 Critical Habitat	score	If yes, Category 3.
rtanative rtating	adestion i childa nabitat	No	ii yes, oalegory o.
	Question 2. Threatened or Endangered Species	No	If yes, Category 3.
	Question 3. High Quality Natural Wetland	No	If yes, Category 3.
	Question 4. Significant bird habitat	No	If yes, Category 3.
	Question 5. Category 1 Wetlands	No	If yes, Category 1.
	Question 6. Bogs	No	If yes, Category 3.
	Question 7. Fens	No	If yes, Category 3.
	Question 8a. Old Growth Forest	Nb	If yes, Category 3.
	Question 8b. Mature Forested Wetland	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	No	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	No	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	No	If yes, Category 3
	Question 11. Relict Wet Prairies	/00	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	1	
	Metric 2. Buffers and surrounding land use	5	
	Metric 3. Hydrology	9	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	2	In the second second
	TOTAL SCORE	27	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

## **Wetland Categorization Worksheet**

Wetland 16

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 V	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 V	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 V	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 V	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?	VES  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.
	6	Final Cate	gory
Choose o	ne Category		tegory 2 Category 3

End of Ohio Rapid Assessment Method for Wetlands.

	Ohio Rapid Assessment Metho 10 Page Form for Wetland Cat	
Version 5.0	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

#### **Instructions**

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

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

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

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <a href="http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx">http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx</a>

# **Background Information**

Name: Nathan Nola	nd	
Date: 8/16/2016		0
Affiliation: Stanter		
Address		
11687 Lebane	on Rd ancinnation 45241	
Phone Number: 513-847	-8200	
e-mail address:	nolandostantec.com	
	etland 1)	
Vegetation Communit(ies):		
HGM Class(es):		
Depressi		
Location of Wetland: include map, a	ddress, north arrow, landmarks, distances, roads, etc.	
	31	
	A Project area (Line) &	
	Project area (Line) &	
	(Line)	M Vanas
	welland	Mt. Vernon
	Location 23	W.
	The state of the s	1
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	"service from the "period absolute the real service."	hi estratoria id guine
Lat/Long or UTM Coordinate	435747, -82,761703	
USGS Quad Name Musero		
County Morrow		
Township Marchao		
Section and Subsection		
	10011307	
Site Visit Non P		
National Wotland Inventory Man		
/(/	nut D	
Obje 18/-4/	one t	T
Ohio Wetland Inventory Map	7	
Ohio Wetland Inventory Map		

Name of Wetland:	etland 17	
Wetland Size (acres, hed	stares): $\approx 0.45$ as	
Sketch: Include north ar	row, relationship with other surface waters, vegetation zones, etc.	1 House
	1 Frond	Livonse
	2000	
	2	lential
~ ~		uwn
1	SKYVOL D	
1	Survey Roundary	7
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	Fore stev	?
		51
		5 15
		1 E
		3
		5 41
Comments, Narrative Dis	scussion, Justification of Category Changes:	- //
zonimonto, nariativo Di	substantial of subgery stranges.	
	See Ecological Resource Report	
	the resource report	
		<b>F</b>
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.	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.	1	
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**

Wetland 17

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	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	has had critical habitat proposed (65 FR 41812 July 6, 2000).  Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	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	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?	Go to Question 5 YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
	<b>Bogs.</b> 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%?	Wetland is a Category 3 wetland	NO 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?	Go to Question 8a YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8t

		M	ettand 1
Bb	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
Эа	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

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

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Summary: Letter of Notification Part 29 electronically filed by Mr. Hector Garcia on behalf of AEP Ohio Transmission Company