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

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

#	Question	L Cirolo ano	T
		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	YES	MO
	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	
	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	
	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	
	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, 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	0
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses.	YES	(NO)
	particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
	30101 01 111120110 Species (600 1 2510 1) 15 -2070;	Go to Question 7	~
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free	YES	(NO)
	flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland	Go to Question 8
	, i	Go to Question 8a	A STATE OF THE STA
ì	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics:	YES	(NO.)
	overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence	Wetland is a Category 3 wetland.	Go to Question 8
	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 8b	

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of	YES	(NO)
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible	Go to Question 9a
		Category 3 status.	
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	NO
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO
	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Ene due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible	Go to Question 9c
	landward dikes of differ hydrological controls:	Category 3 status	
		Go to Question 10	110
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland	YES	NO
	border alterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	"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 Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	(NO)
	characterized by the following description: the wetland has a sandy	Wetland is a Category	Go to Question 11
	substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	3 wetland.	
	gramineous vegetation listed in Table 1 (woody species may also be	Go to Question 11	
	present). The Ohio Department of Natural Resources Division of		
	Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.		
11	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. Ene, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 3 status	Rating
	and portions of western Onlo Counties (e.g. Darke, Mercer, Miairii, Montgomery, Van Wert etc.).	Complete Quantitative	
		Rating	

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	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 flaya	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Corex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamoedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranımculus ficaria	Eleoçharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liotris 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 oxyeoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		· ·
	Solidago ohioensis	· -		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin polustre			

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

Site: \	Wet	33.1		Rater(s):	Lauren	Zielk	e I	Date: 9/10	/14
	1	Metric	1. Wetland A	ea (size).				
max 6 pts.	subtotal	>5 25 10 31 0.: \(\sigma \) 0.	ize class and assign score (>20.2ha) (6 pts) to <50 acres (10.1 to <20 to <50 acres (10.1 to <20 to <25 acres (4 to <10.1h to <10 acres (1.2 to <4ha) to <3 acres (0.12 to <1.2 to <0.3 acres (0.04 to <0.1 acres (0.04 to <0.1 acres (0.04 to <0.1 acres (0.04ha) (0 pts)	.2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts) .12ha) (1 pt)					
	2	Metric	2. Upland but	fers and	surrou	nding	land use.		
max 14 pts.	subtotal	W MI N/ Z VE 2b. Intensity LC	e average buffer width. S IDE. Buffers average 50nr EDIUM. Buffers average 2 ARROW. Buffers average ERY NARROW. Buffers a of surrounding land use. ERY LOW. 2nd growth or DW. Old field (>10 years), DDERATELY HIGH. Resi GH. Urban, industrial, ope	i (164ft) or more 25m to <50m (8 10m to <25m verage <10m (< Select one or older forest, pra shrub land, you dential, fenced	e around wetland to <164ft) are (32ft to <82ft) are (32ft) around we double check a sine, savannahung second gropasture, park, de condere de co	nd perimete ound wetlan round wetl etland peri and average wildlife are with forest.	er (7) nd perimeter (4) land perimeter (1) meter (0) e. ea, etc. (7) (5) on tillage, new fallor	w field. (3)	
12	14	Metric	3. Hydrology.	•					
max 30 pts.	subtotal	Hi OI OI See Maximu.	of Water. Score all that a gh pH groundwater (5) her groundwater (3) ecipitation (1) easonal/Intermittent surfac erennial surface water (lak m water depth. Select onl 1.7 (27.6in) (3) 4 to 0.7m (15.7 to 27.6in) (1 1.4m (<15.7in) (1)	e water (3) e or stream) (5) y one and assig 2) regime. Score	n score. one <u>or double</u>	3d. Durat	Part of wetland/up Part of riparian or ion inundation/satu Semi- to permane Regularly inundate Seasonally inunda Seasonally satura	n (1) ake and other hum aland (e.g. forest), upland corridor (1) ration. Score one ntly inundated/satued/saturated (3)	complex (1)) or dbl check. urated (4)
		Re X Re	one or none apparent (12) ecovered (7) ecovering (3) ecent or no recovery (1)	ditch tile dike weir	urbances obse ater input	rved	point source (nons filling/grading road bed/RR track dredging other		
9	23	Metric	4. Habitat Alt	eration a	and Dev	elopm	ent.		
max 20 pts.	subtotaf	4b. Habitat Ve Minimum Minim	te disturbance. Score one one or none apparent (4) accovered (3) accovering (2) accent or no recovery (1) development. Select only scellent (7) ary good (6) accentely good (4) air (3) accentely good (4) accentely good (5) accentely good (4) accentely good (5) accentely good (5) accentely good (6) accentely good (7) accentely good (7) accented (7) accente						
		4c. Habitat	alteration. Score one or done or done or none apparent (9)		d average. urbances obse	rved			1
	23 Jobiotal this p	Re X Re Re	ecovered (6) ecovering (3) ecent or no recovery (1)	mowing grazing clearcut selective	ting e cutting debris removal		shrub/sapling rem herbaceous/aquat sedimentation dredging farming nutrient enrichmen	tic bed removal	

Site: N	let 3	3.\ Rate	r(s): Law	en Zielke Date: 9/10/14
sı	23 ubtoted first p			
0	23	Metric 5. Special Wetlar	nds.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Opel Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	restricted hydro nings) (10) eatened or enda r fowl habitat or i 1 Qualitative R	angered species (10) usage (10) ating (-10)
5	28	Metric 6. Plant commun	ities, int	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		Emergent		vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Z Forest	2	Present and either comprises significant part of wetland's
		Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one.		vegetation and is of high quality
		High (5)	Narrative De	escription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)	IUW	
		Moderately low (2)	mod	disturbance tolerant native species
		Low (1)	mou	Native spp are dominant component of the vegetation,
		None (0)		although nonnative and/or disturbance tolerant native spp
		6c. Coverage of invasive plants. Refer		can also be present, and species diversity moderate to
		to Table 1 ORAM long form for list. Add		moderately high, but generally w/o presence of rare threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)	riigri	and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		
		Sparse 5-25% cover (-1)		absent, and high spp diversity and often, but not always,
		Nearly absent <5% cover (0)		the presence of rare, threatened, or endangered spp
		Absent (1)	Mudflot and	Open Water Class Quality
		6d. Microtopography.	0	
		Score all present using 0 to 3 scale.	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	· · · · · · · · · · · · · · · · · · ·
		Standing dead >25cm (10in) dbh		High 4ha (9.88 acres) or more
		Amphibian breeding pools	Microtonoga	aphy Cover Scale
				Absent
			0	+·····································
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
18				and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	\	
.	Metric 2. Buffers and surrounding land use		
	Metric 3. Hydrology	12	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	Ò	
	Metric 6. Plant communities, interspersion, microtopography	5	
	TOTAL SCORE	28	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

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

Final Category						
Choose one	Category 1)	Category 2	Category 3			
		:				

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lavren Zielke	
Date: 9/10/14	
Affiliation: ERM	
Address: 1701 Golf Pd, Svite 1-700, Rolling Meadows, IL	60008
Phone Number: 847 -258 - 8941	
e-mail address: ween. zielke@erm.com	
Name of Wetland: Wetland 37.1	
Vegetation Communit(les): PFO	
HGM Class(es): Seasonally inundated/ seasonally saturated	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
See mapbook page 20.	
	·
LaVLong or UTM Coordinate See Aquatic Resources Table	
USGS Quad Name	Grafton
County	Lorain
Township	Eaton
Section and Subsection	None
Hydrologic Unit Code	4110001
Site Visit	9/3/14
National Wetland Inventory Map	Wage, I
Ohio Wetland Inventory Map	*******
Soil Survey	
Delineation report/map	Page 20

Name of Wetland: 11/14/1/ 201		
Withan 3/11		
Wetland Size (acres, hectares): 3,4 a CfeS Sketch: Include north arrow, relationship with others	surface waters, vegetation zones, etc.	
golf e	PPPO Wenard PPPO Verland Verland	agricult ^e field
		↑
Weltand 37. I is a palushi		l witland
with a golf course	to the West, and	an
agricultural field to :	the east, north, ar	d
Final score: 33	Category:	2_

Scoring Boundary Worksheet

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

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

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

Narrative Rating

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

#	Question	Circle one	1
1	Critical Habitat. Is the welland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has	YES	100
	been designated by the U.S. Fish and Wildlife Service as "critical	Wetland should be	Go to Question 2
	habitat" for any threatened or endangered plant or animal species?	evaluated for possible	,
	Note: as of January 1, 2001, of the federally listed endangered or	Category 3 status	
	threatened species which can be found in Ohio, the Indiana Bat has		
	had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	Go to Question 2	
!	Threatened or Endangered Species. Is the wetland known to contain	YES	(NO)
	an individual of, or documented occurrences of federal or state-listed		
	threatened or endangered plant or animal species?	Wetland is a Category	Go to Question 3
		3 wetland.	
		Go to Question 3	
	Documented High Quality Wetland. Is the wetland on record in	YES	(NO)
	Natural Heritage Database as a high quality wetland?	Mottand in a Catarras	0.4.0
		Wetland is a Category 3 wetland	Go to Question 4
		O WOULDING	
		Go to Question 4	
	Significant Breeding or Concentration Area. Does the wetland	YES	(40)
	contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	Motland is a Catagon	Co to Ousstless 5
	wateriows, neotropical sorigina, or shorebita concentration areas?	Wetland is a Category 3 wetland	Go to Question 5
		o irchano	
		Go to Question 5	
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of	YES	(NO)
	vegetation that is dominated (greater than eighty per cent areal cover)	Wetland is a Category	Go to Question 6
	by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or	1 wetland	Go to Question 6
	2) an acidic pond created or excavated on mined lands that has little or	·	
	no vegetation?	Go to Question 6	
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	(NO)
	significant inflows or outflows, 2) supports acidophilic mosses, particularly Sphagnum spp., 3) the acidophilic mosses have >30%	W-41	
	cover, 4) at least one species from Table 1 is present, and 5) the	Wetland is a Category 3 wetland	Go to Question 7
	cover of invasive species (see Table 1) is <25%?	o regiona	
	· · · · · · · · · · · · · · · · · · ·	Go to Question 7	
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES	(NO)
	is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0)	Molland in a O-to-	0-4-0-15
	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%?	S NGUATIU	
		Go to Question 8a	15
ı	"Old Growth Forest." Is the wetland a forested wetland and is the	YES	(NO)
	forest characterized by, but not limited to, the following characteristics:	W	
	overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence	Wetland is a Category	Go to Question 8t
	of human-caused understory disturbance during the past 80 to 100	3 wetland.	
	years; an all-aged structure and multilayered canopies; aggregations of	Go to Question 8b	
	canopy trees interspersed with canopy gaps; and significant numbers	Co to decouon on	
	of standing dead snags and downed logs?		

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	NO
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	NO
	elevation, or along a tributary to Lake Erie that is accessible to fish?	Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to	YES	NO
	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	YES	NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
	'	Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Wetland is a Category 3 wetland.	Go to Question 11
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Go to Question 11	STYLE
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
	dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union	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, Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	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 echinota	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	Labelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp,		Pycnanthemum virginianum
	Rhanmus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos .		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		
	Solidago ohioensis	,		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

toxic pollutants

nutrient enrichment

last revised 1 February 2001 jjm

	on contains			
Site: We 🕇	37.1 Ra	ter(s): Lawe	n Zielke	Date: 9/10/14
27 subtotal first	Metric 5. Special Wetl	ands.		. , , ,
max 10 pts, subtotal	— Check all that apply and score as indicate	d.		•
	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetla Lake Erie coastal/tributary wetla Lake Plain Sand Prairies (Oak 0 Relict Wet Prairies (10) Known occurrence state/federal Significant migratory songbird/w Category 1 Wetland. See Ques	ind-restricted hydro Openings) (10) threatened or enda rater fowl habitat or tion 1 Qualitative R	ingered species (10) usage (10) ating (-10)	
6 33	Metric 6. Plant commi	unities, int	erspersion, mic	rotopography.
max 20 pts. subtotal	6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
	Score all present using 0 to 3 scale.	0		a (0.2471 acres) contiguous area
	Aquatic bed Emergent	1	Present and either compris	
	Shrub	•	significant part but is of lo	erate quality, or comprises a
	2 Forest	2		es significant part of wetland's
	Mudflats		•	erate quality or comprises a small
	Open water		part and is of high quality	
	Other	3	_	nificant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high	quality
	High (5)	Narrative De	scription of Vegetation Qu	ality
	Moderately high(4)	low		edominance of nonnative or
	Moderate (3)		disturbance tolerant nativ	
	Moderately low (2)	mod	Native spp are dominant co	•
	Low (1) None (0)		_	or disturbance tolerant native spp
	6c. Coverage of invasive plants. Refer		1	species diversity moderate to erally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered	
	or deduct points for coverage	high	A predominance of native s	pecies, with nonnative spp
	Extensive >75% cover (-5)			nt native spp absent or virtually
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)			ersity and often, but not always, atened, or endangered spp
	Nearly absent <5% cover (0)		the presence of rare, the	atened, or endangered spp
	X Absent (1)	Mudflat and	Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acre	
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2	
	Vegetated hummucks/tussucks Coarse woody debris >15cm (6ir) 2	Moderate 1 to <4ha (2.47 t High 4ha (9.88 acres) or mo	
	Standing dead >25cm (10in) dbh		Tright 4tha (9.00 acres) or the	ore
	Amphibian breeding pools		aphy Cover Scale	
		0	Absent	
		1	Present very small amounts	s or if more common
		2	of marginal quality Present in moderate amount	ats, but not of highest
		<u>.</u>	quality or in small amount	
		3	Present in moderate or grea	
			and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (VO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2,
	Question 10. Oak Openings	YES (10)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
· www.g	Metric 2. Buffers and surrounding land use	3	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	6	
	TOTAL SCORE	33	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	200	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(10)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(6)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold <i>(including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(ÑO)	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category					
Choose one	Category 1	Category 2	Category 3		

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lauren Zielke	
Date: 9/10/14	
Affiliation: EP.M	11 - 1 - 14 - 14 - 14 - 14 - 14 - 14 -
Address: 1701 Golf Pd., Svite 1-700, Rolling Meadows, IZ 60	008
Phone Number: 847 - 258 - 8941	
e-mail address: lawen. Zielke@erm. com	
Name of Wetland: Wetland 41.	
Vegetation Communit(les): PFO/PS5	
HGM Class(es): Seusonally invadated, seasonally salvated	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
See mapbook page 21,22	
	;
•	
Lat/Long or UTM Coordinate See Aquatic Deswices Table	aleta Sh <u>iyanezen</u> iki ya dide kiyekishiki
USGS Quad Name	Grafton
County	Lorain
Township	Carliste
Section and Subsection	None
Hydrologic Unit Code	4110001
Site Visit	9/3/14
National Wetland Inventory Map	galieti,
Ohio Wetland Inventory Map	p.into/mark
Soil Survey	
Delineation report/map	Page 21,22

Name of Wetland: Wetland Size (acres, hectares): 1.1 acres Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. 1 wetland Comments, Narrative Discussion, Justification of Category Changes: Wetland 411 is a palustrine forested, scrub shrub depressional wehand with an agricultural field to to east, and forested area to the west, north, and such.

Category:

Z

Final score:

42

Scoring Boundary Worksheet

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

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

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

Narrative Rating

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

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

			Con .
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	(2)
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this	YES	Go to Question 10
9b	elevation, or along a tributary to Lake Erie that is accessible to fish? Does the wetland's hydrology result from measures designed to	Go to Question 9b YES	NO
90	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland	YES	NO II 10
	border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES	NO
		Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	(NO)
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Welland is a Category 3 wetland.	Go to Question 11
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Go to Question 11	
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies	YES	(NO)
	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), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 3 status	Rating
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	. Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		3
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum		•	
	Triglochin palustre			

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

last revised 1 February 2001 jjm

Site:	Wet 4	. \ Rate	er(s): Lavié	n Zielle	Date: 9/10/14
\$i	33 ubtotal first pa	age			•
0	33	Metric 5. Special Wetla	nds.		
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland Lake Ene coastal/tributary wetland Lake Plain Sand Prairies (Oak Ope Relict Wet Prairies (10) Known occurrence state/federal th Significant migratory songbird/wate Category 1 Wetland. See Question	l-restricted hydrol enings) (10) reatened or endal er fowl habitat or u n 1 Qualitative Ra	ngered species (10) usage (10) ating (-10)	
9	42	Metric 6. Plant commur	nities, inte	erspersion, mic	rotopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation C	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1h	a (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprise	
		Emergent		1 -	erate quality, or comprises a
		Z Shrub		significant part but is of lo	
		3 Forest	2		es significant part of wetland's
		Mudflats		1	erate quality or comprises a small
		Open water		part and is of high quality	
		Other	3	1	ificant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high of	quality
		Select only one.			
		High (5)		scription of Vegetation Qua	
		Moderately high(4)	low	Low spp diversity and/or pre	
		Moderate (3)	•	disturbance tolerant native	
		Moderately low (2)	mod	Native spp are dominant co	
		Low (1)			disturbance tolerant native spp
		None (0)			species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but gene	
		to Table 1 ORAM long form for list. Add	·	threatened or endangered	
		or deduct points for coverage	high	A predominance of native s	
		Extensive >75% cover (-5)			t native spp absent or virtually
		Moderate 25-75% cover (-3)			rsity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threa	atened, or endangered spp
		Nearly absent <5% cover (0)			
		Absent (1)		Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.	
		Vegetated hummucks/lussucks	2	Moderate 1 to <4ha (2.47 to	
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or mo	<u>re</u>
		Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopogra	phy Cover Scale	
			0	Absent	
			1	Present very small amounts of marginal quality	or if more common
			2	Present in moderate amount quality or in small amounts	ts, but not of highest of highest quality
			3	Present in moderate or grea	
110				and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (10)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	6	
	Metric 3. Hydrology	14	
	Metric 4. Habitat	11	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	q	
	TOTAL SCORE	42	Category based on score breakpoints modified 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(O)	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(40)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold <i>(including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	(N)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category				
Choose one	Category 1	(Category 2	Category 3	

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Lat/Long or UTM Coordinate	See Aquatic Resources table	
USGS Quad Name		Grafton
County		Lorain
Township		Carliste
Section and Subsection		None
Hydrologic Unit Code		4110001
Site Visit		9/3/14
National Wetland Inventory Map		
Ohio Wetland Inventory Map		-
Soil Survey		Alternative
Delineation report/map		Page 22

Name of Wetland: Wetland 42. Wetland Size (acres, hectares): O. 8 acres Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc. K East Branch of Black PAW forested weak wetland PFO N Comments, Narrative Discussion, Justification of Category Changes: Wetland 42.1 is a palustrine forested wetland with the East Branch of the Black Piver running through it, surrounded by a forested area. Final score: 49,5 2 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.	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.		
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		-
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	/	

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

Narrative Rating

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

#	Question	Circle one	7
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has	YES	(NO)
	been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species?	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	
}	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	0
Ļ	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	
i	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
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses,	YES	(NO)
	particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
		Go to Question 7	0
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free	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	
a	"Old Growth Forest." Is the wetland a forested wetland and is the	YES	/NO
	forest characterized by, but not limited to, the following characteristics:		
	overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence	Wetland is a Category 3 wetland.	Go to Question 8b
	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 8b	

			\sim
8b	Mature forested wetlands. Is the wetland a forested wetland with	YES	NO
•	50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		outogoly to alleast	
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(NO)
	an elevation less than 575 feet on the USGS map, adjacent to this	Go to Question 9b	Go to Question 10
9b	elevation, or along a tributary to Lake Erie that is accessible to fish? Does the wetland's hydrology result from measures designed to	YES	NO
30	prevent erosion and the loss of aquatic plants, i.e. the welland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
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 "estuanne" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuanne wetlands, river mouth	YES Go to Question 9d	NO Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.	YES	NO
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	NO
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in	YES	(NO)
	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	Welland is a Category 3 welland. Go to Question 11	Go to Question 11
	type of wetland and its quality.		1 200
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Table 1. Characteristic plant species.

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

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

Site: Wet	42.1	Rater(s): Lawen	Tillel	Date: 9/10/14
22	Metric 1. Wetland A	Area (size).		
max 6 pts. subtotal	Select one size class and assign sco >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 X 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)		
9 11	Metric 2. Upland bu	uffers and surrou	nding land us	se.
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth LOW. Old field (>10 years MODERATELY HIGH. Re	0m (164ft) or more around wetla e 25m to <50m (82 to <164ft) ar ge 10m to <25m (32ft to <82ft) a average <10m (<32ft) around v	and perimeter (7) ound wetland perimeter (a around wetland perimeter (0) and average.	(4) v (1)
16 27	Metric 3. Hydrolog	y .		
max 30 pls. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfice water (1) 3c. Maximum water depth. Select of 0.4 to 0.7m (15.7 to 27.6ir) -0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog	ace water (3) ake or stream) (5) nly one and assign score.) (2)	Part of wetla Part of ripari 3d. Duration inundation Semi- to per Regularly int Seasonally int Seasonally is	
	None or none apparent (1) Recovered (7) Recovering (3) Recent or no recovery (1)	2) Check all disturbances obsered ditch title dike weir stormwater input	point source filling/grading road bed/RR dredging other	
14.5 41.5	Metric 4. Habitat A	Iteration and Dev	elopment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score o None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	ne or double check and average		
	Poor (1) 4c. Habitat alteration. Score one or			
91,5 subtotal this pa last revised 1 Februal	₹	Check all disturbances obse	shrub/sapling herbaceous/ sedimentatio dredging	aquatic bed removal on

Site: Wet 42 / Rater(s	1. (/(\VI	un Ziellee Date: 9/10/14
subtotal first page	_	· ·
ຸດ ໗ເຽ Metric 5. Special Wetland	is.	
max 10 pts. subtotal Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unr Lake Erie coastal/tributary wetland-res	tricted hydrolo	
Lake Plain Sand Prairies (Oak Opening Relict Wet Prairies (10) Known occurrence state/federal threate Significant migratory songbird/water for Category 1 Wetland. See Question 1 (ened or endar wil habitat or u Qualitative Ra	usage (10) using (-10)
\mathcal{S} \mathcal{Y} Metric 6. Plant community	ies, inte	erspersion, microtopography.
Score all present using 0 to 3 scale. Aquatic bed Emergent Shrub Forest Mudflats Open water Other Other 6b. horizontal (plan view), Interspersion. Select only one. High (5) Moderately high(4) Moderate (3) Moderately low (2) Low (1)	2	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality Present and comprises significant part, or more, of wetland's vegetation and is of high quality scription of Vegetation Quality Low spp diversity and/or predominance of nonnative or disturbance tolerant native species Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp
None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)	high high Mudfiat and 0	can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp Open Water Class Quality
6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools	0 1 2 3 Microtopogra	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more aphy Cover Scale Absent
-	2	Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (10)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
·	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
rading	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	16	
	Metric 4. Habitat	14.5	
	Metric 5. Special Wetland Communities	Ò	
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	49.5	Category based on score breakpoints

 $Complete\ Wetland\ Categorization\ Worksheet.$

Wetland Categorization Worksheet

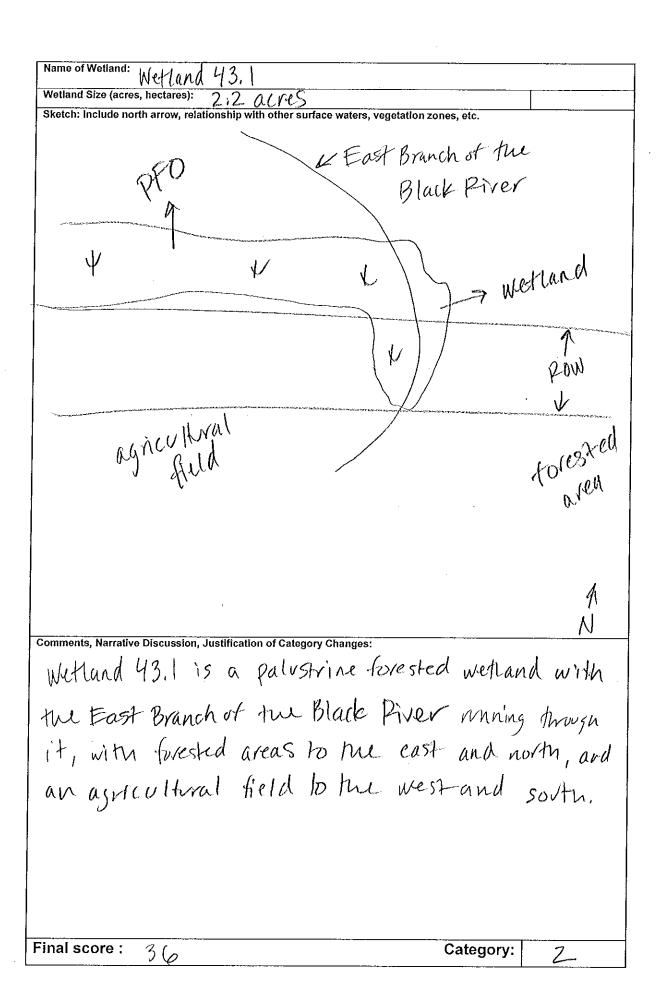
Choices	Circle one	м.	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (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 over-
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)	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.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold <i>(including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the welland is located within the scoring range for a particular category, the welland 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 lithe wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by his method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Fir	nal Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lavren Zielke	
Date: 9/10/14	
Affiliation: FRM	
Address: 1701 GolfRd., Sulfel-700, Ralling Meadows, IZ 600	8
Phone Number: 847 - 258 - 8941	
e-mail address: wien. Zielkellerm. com	
Name of Wetland: Wetland 43.1	
Vegetation Communit(ies): PT-O	
HGM Class(es): Scasonally inundated, Scasonally Salvated	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
See mapbook page 22.	
Lat/Long or UTM Coordinate See Aquatic Resources table	
USGS Quad Name	Graffon
County	Lorain
Township	Carliste
Section and Subsection	None
Hydrologic Unit Code	4110001
Site Visit National Wetland Inventory Map	9/10/14
Ohio Wetland Inventory Map	
Soil Survey	
Delineation report/map	Page 22
	_ + ugt ~~



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 elarification of the appropriate scoring boundaries of a particular wetland.

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

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

Narrative Rating

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

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical"	YES Wetland should be	Go to Question 2
	habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has	evaluated for possible Category 3 status	
	had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	Go to Question 2	
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category	(NO) Go to Question 3
		3 wetland. Go to Question 3	
	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES	(NO)
	, and the second	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 vegetation that is dominated (greater than eighty per cent areal cover)	YES	(NO)
	by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, 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	
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses,	YES	(NO)
	particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
		Go to Question 7	
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free	YES	(NO)
	flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland	Go to Question 8
	"Old Crowth Coroof II In the wellest a face to describe the state of	Go to Question 8a	
а	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a	YES Wetland is a Category	Go to Question 8
	projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100	3 wetland.	, So to Question of
	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	

			pro-
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
		Category o status.	
		Go to Question 9a	(Fee.)
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
O.D	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	
		Category o status	
		Go to Question 10	
9с	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	"estuarine" wetland with lake and river influenced hydrology. These		
	include sandbar deposition wetlands, estuanne wetlands, nver mouth		
	wetlands, or those dominated by submersed aquatic vegetation. Does the wetland have a predominance of native species within its	YES	NO
9d	vegetation communities, although non-native or disturbance tolerant	100	l NO
	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?		0.10
	•	Wetland should be evaluated for possible	Go to Question 10
		Category 3 status	
		Go to Question 10	(NO)
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	
	characterized by the following description: the wetland has a sandy	Wetland is a Category	Go to Question 11
	substrate with interspersed organic matter, a water table often within	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	Go to Question 11	
	Natural Areas and Preserves can provide assistance in confirming this		
	type of wetland and its quality.	VC0	///
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies	YES	(NO)
	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, Montgomery, Van Wert etc.).	Complete Quantitative	
	montgomers, van even eie.	Rating	

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwelli
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsi
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum		Helianthus grosseserratu
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicate
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflori
	Parnassia glauca	Schechzeria palustris		Lythrum alatun
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutan
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddelli
	Salix serissima	Xyris difformis		8
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: \	Jex	43.1	I	Rater(s): Luwen	Zielk	e	Date: ๆ//ข	[14
2	2	Metric 1. W	etland Ar	ea (size).				
max 6 pts.	subtotal	25 to <50 at 10 to <25 at 3 to <10 acr 0.3 to <3 ac 0.1 to <0.3 acres (>20.2ha) (6 pts) cres (10.1 to <20. cres (4 to <10.1ha es (1.2 to <4ha) res (0.12 to <1.2ha cres (0.04 to <0. 0.04ha) (0 pts)	.2ha) (5 pts) a) (4 pts) (3 pts) na) (2pts) .12ha) (1 pt)				
2	4			fers and surro				
max 14 pts.	subtotal	WIDE. Buff MEDIUM. E NARROW. VERY NAR 2b. Intensity of surrow VERY LOW LOW. Old I MODERATI	ers average 50m Buffers average 2 Buffers average ROW. Buffers average Inding land use. 2. 2nd growth or decided (>10 years), ELY HIGH. Residen	elect only one and assign so (164ft) or more around wet 5m to <50m (82 to <164ft) a 10m to <25m (32ft to <82ft) verage <10m (<32ft) around Select one or double check older forest, prairie, savanna shrub land, young second g dential, fenced pasture, park in pasture, row cropping, mi	land perimel around wetla) around wel wetland per c and averag ah, wildlife a prowth forest c, conservati	ter (7) und perimeter (4) tland perimeter (1) imeter (0) je. rea, etc. (7) (5) ton tillage, new fallo	ow field. (3)	·
12	16	Metric 3. Hy						
max 30 pts.	subtotal	Other groun Precipitation Seasonal/In Perennial st 3c. Maximum water of 90.7 (27.6in 0.4 to 0.7m 9 <0.4m (<15 3e. Modifications to no Recovered Recovering Recent or no	nundwater (5) Idwater (3) In (1) Itermittent surface Inface water (lake epth. Select only) (3) (15.7 to 27.6in) (.7in) (1) atural hydrologic ne apparent (12) (7) (3) In recovery (1)	e water (3) e or stream) (5) y one and assign score. 2) regime. Score one or doub Check all disturbances obs ditch tile dike weir stormwater input	3d. Dura	Part of wetland/u Part of riparian or tion inundation/sat Semi- to perman Regularly inunda Seasonally inunda Seasonally sature d average. point source (nor filling/grading road bed/RR trac dredging other	uin (1) fake and other hum pland (e.g. forest), r upland corridor (1) uration. Score one ently inundated/satu ted/saturated (3) lated (2) ated in upper 30cm	complex (1)) or dbl check urated (4)
9	25	Metric 4. H	abitat Alt	eration and De	velopn	nent.		
max 20 pts.	subtotal	None or nor Recovered Recovering Recent or not habitat developm Excellent (7 Very good (Good (5) Moderately Fair (3) Poor to fair Poor (1)	ne apparent (4) (3) (2) o recovery (1) ent. Select only) 6) good (4)	or double check and average or double check and average one and assign score.	ge.			
		4c. Habitat alteration. None or not	ne apparent (9)	Check all disturbances ob	served	7		
su last revised	25 btotal this pa	Recovered Recovering Recent or n	(6)	mowing grazing clearcutting selective cutting woody debris removitoxic pollutants	al	shrub/sapling ren herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal	

Site: \	Net L	13.1 F	Rater(s): Lav	ren zielke	Date: 9/10/14
si	25 ubtotal first p	age			
0	25	Metric 5. Special We	tlands.		
max 10 pts.	subtotal	Check all that apply and score as indice Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary w Lake Erie coastal/tributary w Lake Plain Sand Prairies (Oa Relict Wet Prairies (10) Known occurrence state/fede Significant migratory songbire Category 1 Wetland. See Qu	etland-unrestricted hy etland-restricted hydro k Openings) (10) eral threatened or end d/water fowl habitat or	ology (5) angered species (10) rusage (10)	•
	36	Metric 6. Plant comm	nunities, int	erspersion, micro	topography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Venetation	Community Cover Scale	
•		Score all present using 0 to 3 scale.	vegetation 0	Absent or comprises <0.1ha (0	2471 acres) continuous arca
,		Aquatic bed	1	Present and either comprises	
		1 Emergent		vegetation and is of moderat	•
		Shrub		significant part but is of low of	
		3 Forest	2	Present and either comprises	
		Mudflats			e quality or comprises a small
		Open water		part and is of high quality	- q-and or comprised a critari
		Other	3	Present and comprises signific	ant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion		vegetation and is of high qua	
		Select only one.	<u></u>	1 Togotation and is of high qua	my .
		High (5)	Narrative D	escription of Vegetation Quality	,
	,	Moderately high(4)	low	Low spp diversity and/or predo	
		✓ Moderate (3)	IOTF	disturbance tolerant native sp	
		Moderately low (2)	mod		
		Low (1)	mou	Native spp are dominant comp	-
		None (0)		although nonnative and/or dis	
		6c. Coverage of invasive plants. Refer		can also be present, and spe	
		to Table 1 ORAM long form for list. Add		moderately high, but generall threatened or endangered sp	
		or deduct points for coverage	high		<u> </u>
		Extensive >75% cover (-5)	myn	A predominance of native spec	• • • • • • • • • • • • • • • • • • • •
		Moderate 25-75% cover (-3)		and/or disturbance tolerant no	
		—		absent, and high spp diversity	
		Sparse 5-25% cover (-1)		the presence of rare, threater	ned, or endangered spp
		Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality	
		6d. Microtopography.	0	Absent < 0.1ha (0.247 acres)	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	acres)
		Vegetated hummucks/tussuck	s 2	Moderate 1 to <4ha (2.47 to 9.	88 acres)
		Coarse woody debris >15cm (6in) 3	High 4ha (9.88 acres) or more	· · · · · · · · · · · · · · · · · · ·
		Standing dead >25cm (10in) o	lbh		 -
		Amphibian breeding pools	Microtopog	raphy Cover Scale	
			0	Absent	
			1	Present very small amounts or of marginal quality	if more common
			2	Present in moderate amounts, I	out not of bighest
			-	quality or in small amounts of	
			3	Present in moderate or greater	
α			ŭ	and of highest quality	
26.					

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or	
		insert	Result
		score	
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
•	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	Z	
	Metric 2. Buffers and surrounding land use	2	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	Ō	
	Metric 6. Plant communities, interspersion, microtopography	11	
	TOTAL SCORE	36	Category based on score breakpoints Modified 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

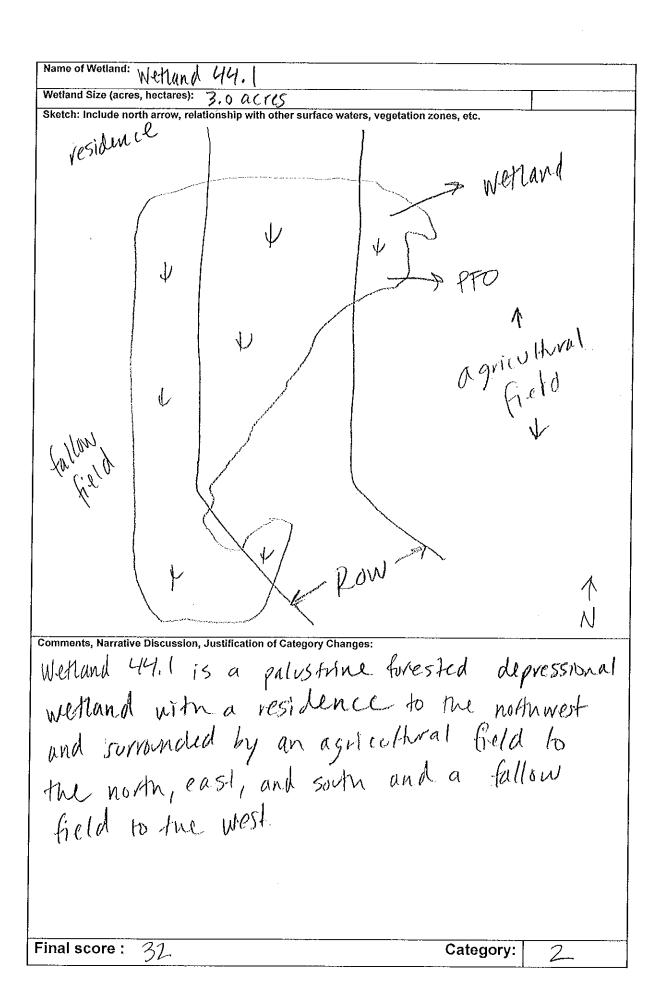
Choices	Circle one	<u> </u>	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score <i>less</i> than the Category 2 scoring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

Final Category				
Choose one	Category 1	Category 2	Category 3	
	• •			

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lavren Zielke	
Date: 9/10/14	
Affiliation:	
Address: 1701 Golf Rd., Svite 1-700, Rolling Madows, IL box	8
Phone Number: 841-258-8941	
e-mail address: Lauren. Zielke Cerm. com	
Name of Wetland: Wetland 44.	
Vegetation Communit(les): PFD	
HGM Class(es): scasonally inundated / reasonally saturated	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
See Mupbook page 22	
Lat/Long or UTM Coordinate	
JEE AGUARIC RESOLUCES TABLE	- 0
USGS Quad Name	Grafton
County	Lorain
Township	Carliste
Section and Subsection	None
Hydrologic Unit Code	4110001
Site Visit	9/10/14
National Wetland Inventory Map	Married Street, Street
Ohio Wetland Inventory Map	<u></u>
Soil Survey	
Delineation report/map	0.4. 22



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.		V
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		

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

Narrative Rating

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

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical"	YES Wetland should be	Go to Question 2
	habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has	evaluated for possible Category 3 status	
	had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	Go to Question 2	
	Threatened or Endangered Species. Is the welland 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	(NO) Go to Question 3
	ineatened of endangered plant of animial species?	3 wetland.	Go to Question 3
		Go to Question 3	6
	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?	Welland is a Category 3 wetland	Go to Question 5
		Go to Question 5	
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of	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 mirred lands that has little or	Wetland is a Category 1 wetland	Go to Question 6
	no vegetation?	Go to Question 6	
	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses,	YES	(NO)
	particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
	Fana to the westland a cachen assure that the state of th	Go to Question 7	(A)
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0)	YES	(NO)
	and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland	Go to Question 8
		Go to Question 8a	6
ı	"Old Growth Forest." Is the welland a forested welland and is the forest characterized by, but not limited to, the following characteristics:	YES	(NO)
	overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence	Wetland is a Category 3 wetland.	Go to Question 8
	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 8b	

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of	YES	(NO)
	deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible	Go to Question 9a
	and the second s	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 evaluated for possible	Go to Question 9c
	landward dikes or other hydrological controls?	Category 3 status	
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
•	i.e. the wetland is hydrologically unrestricted (no lakeward or upland		
	border alterations), or the wetland can be characterized as an	Go to Question 9d	Go to Question 10
	"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	Wetland is a Category	Go to Question 9e
	native species can also be present?	3 wetland	GO to Question se
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES	NO
	tolerant mative plant species within its vegetation communities:	Wetland should be	Go to Question 10
		evaluated for possible	
		Category 3 status	
		Go to Question 10	6
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy	Wetland is a Category	Go to Question 11
	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 present). The Ohio Department of Natural Resources Division of	Go to Question 11	
	Natural Areas and Preserves can provide assistance in confirming this		
	type of wetland and its quality.		<i>P</i>
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	NO)
	dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union	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,		
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	
		rvaung	

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 mutans
	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: W	P+ L	14.1	Rater(s): Lavien 2	ielke	Date: 9/10/19
2	3	Metric 1. Wetland A			
2	<u> </u>				
max 6 pts.	subtotal	Select one size class and assign sco >50 acres (>20.2ha) (6 pts			
		25 to <50 acres (10.1 to <2	20.2ha) (5 pts)		
,		10 to <25 acres (4 to <10.1 X 3 to <10 acres (1.2 to <4ha			
		0.3 to <3 acres (0.12 to <1	.2ha) (2pts)		
		0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts)			
	11.	Metric 2. Upland bu	· · · · · · · · · · · · · · · · · · ·	ding land use.	•
	4	Product and and and and		3	
max 14 pts.	subtotal	2a. Calculate average buffer width.	Select only one and assign score.	Do not double check.	
		WIDE. Buffers average 50	im (164ft) or more around wetland 2 25m to <50m (82 to <164ft) aroun	perimeter (7) id wetland perimeter (4)	
-		NARROW, Buffers average	je 10m to <25m (32ft to <82ft) arot	und wetland perimeter (1)	
		✓ VERY NARROW. Buffers2b. Intensity of surrounding land use	average <10m (<32ft) around wette Select one or double check and	and perimeter (0) average.	
		VERY LOW. 2nd growth of	r older forest, prairie, savannah, w	ifdlife area, etc. (7)	
		LOW. Old field (>10 years), shrub land, young second growli sidential, fenced pasture, park, cor	n torest. (5) nservation tillage, new fallo	w field. (3)
		HIGH. Urban, industrial, o	pen pasture, row cropping, mining,	construction. (1)	
12	110	Metric 3. Hydrology	/.		
	Ψ	O O O O O O O O O O O O O O O O O O O	onelis Of	o. Connectivity. Score all	that anniv
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5)	appiy. 30	100 year floodpla	in (1)
		Other groundwater (3)			ake and other human use (1) pland (e.g. forest), complex (1)
		Precipitation (1) Seasonal/Intermittent surfa	ice water (3)	Part of riparian or	upland corridor (1)
		Perennial surface water (la	ike or stream) (5) 3c		uration. Score one or dbl check. ently inundated/saturated (4)
		3c. Maximum water depth. Select o	nly one and assign score.	Regularly inundar	
		0.4 to 0.7m (15.7 to 27.6in) (2)	Seasonally inund	ated (2) ated in upper 30cm (12in) (1)
		<0.4m (<15.7in) (1)3e. Modifications to natural hydrolog	ic regime. Score one or double ch		ated in upper oodin (12iii) (1)
			(2) Check all disturbances observe	d	
		Recovered (7) Recovering (3)	ditch	point source (non filling/grading	stomwater)
		Recent or no recovery (1)	dike	road bed/RR trac	k
			weir stormwater input	dredging other	
7					
%	24	Metric 4. Habitat A	iteration and Devel	opinent.	
max 20 pts.	subtotal] 4a. Substrate disturbance. Score o	ne or double check and average.		
		None or none apparent (4)			
		Recovered (3) Recovering (2)			
		Recent or no recovery (1)	ly and accidn scare		
		4b. Habitat development. Select on Excellent (7)	ly one and assign score.		
		Very good (6) Good (5)			
		Moderately good (4)			
		Fair (3) Poor to fair (2)			
		Poor (1)	•		
		4c. Habitat alteration. Score one or			
		None or none apparent (9) Recovered (6)	Check all disturbances observe	ed shrub/sapling ren	noval
			grazing	herbaceous/agua	
Γ		Recent or no recovery (1)	clearcutting selective cutting	sedimentation dredging	
	14		woody debris removal	farming	
ŠII.	ibtotal this pa	J nge	toxic pollutants	nutrient enrichme	ent
last revised	•	<u>-</u>			

Site: Wet	44. Rate	r(s): Law	en zielke	Date: 9/10/14
2 L subtotal fir		a dia		,
0 24	Metric 5. Special Wetlar	ius.		
max 10 pts. subto	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Ope. Relict Wet Prairies (10) Known occurrence state/federal thm Significant migratory songbird/water Category 1 Wetland. See Question	restricted hydroi nings) (10) eatened or enda r fowl habitat or 11 Qualitative Ra	ingered species (10) usage (10) ating (-10)	
8 32	Metric 6. Plant commun	ities, inte	erspersion, mic	rotopography.
max 20 pts. subtoti		2	Present and either comprivegetation and is of mod significant part but is of I Present and either comprise vegetation and is of mod part and is of high quality Present and comprises significant and is of high quality Present and comprises significant and is of high scription of Vegetation Quality Low spp diversity and/or publicaturbance tolerant national Native spp are dominant contained although nonnative and/or can also be present, and moderately high, but gen threatened or endangere A predominance of native sand/or disturbance tolera	derate quality, or comprises a low quality sees significant part of wetland's derate quality or comprises a small by a see significant part, or more, of wetland's quality redominance of nonnative or we species component of the vegetation, or disturbance tolerant native species diversity moderate to derally w/o presence of rare d spp species, with nonnative spp int native spp absent or virtually
27	Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools	0 1 2 3		2.47 acres) to 9.88 acres) ore s or if more common onts, but not of highest ts of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (10)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (10)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
	Metric 2. Buffers and surrounding land use	(
	Metric 3. Hydrology	12	
	Metric 4. Habitat	8	
	Metric 5. Special Wetland Communities	Ö	
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	32	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,	YES Wetland is categorized as a	(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
4, 6, 7, 8a, 9d, 10	Category 3 wetland	(2)	assessments to determine if the wetland has been over- categorized by the ORAM
Did you answer "Yes" to any of the following questions:	YES Wetland should be	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If
Narrative Rating Nos. 1, 8b, 9b, 9e, 11	evaluated for possible Category 3 status		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	YES	(NO)	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (including any gray zone)? If yes,
Narrative Rating No. 5	Wetland is categorized as a Category 1 wetland		reevaluate the category of the welland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(NO)	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the welland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the welland was not categorized as a Category 2 welland (in the case of moderate functions) or a Category 3 welland (in the case of superior functions) by his method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category				
Choose one	Category 1	(Category 2	Category 3	

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lauren Zielke	
Date: 9/10/14	
Affiliation: ERM	
Address: 1701 Golf Rd., Stite 1-700, Rolling Meadows, IL	60008
Phone Number: 847-258-8941	
e-mail address: NUVEN. zielke Cem. com	
Name of Wetland: Wetland 45.	
Vegetation Communit(les): PE M	
HGM Class(es): Seasonally inundated / seusonally Satwated	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
See mapbook page 22,23	
·	
LaVLong or UTM Coordinate See Aquatic Resources table	
USGS Quad Name	Grafion
County	Lorain
Township	Carlisle
Section and Subsection	None
Hydrologic Unit Code	4110001
Site Visit	9/2/14
National Wetland Inventory Map	****
Ohio Wetland Inventory Map	
Soil Survey	
Delineation report/map	Page 22,23

Name of Wetland: 11/0 kl	
Westana 97.1	
UI QUICK	ers, vegetation zones, etc.
Sketch: Include north arrow, relationship with other surface water than the state of the state o	wested west and
Comments, Narrative Discussion, Justification of Category Change $Wetland 45.1$ is a palush	
Ancilana for 12 a Largan	and to the
depressional wetland with a	MAILYOUNTO THE
west south west, and fixest	ed areas to the
noth and east.	
ı	
	•
Final score: 2.1	Category:

Scoring Boundary Worksheet

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

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

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

Narrative Rating

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

#	Question	Circle one	
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	Go to Question 2
	has had critical habitat proposed (65 FR 41812 July 6, 2000).		
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	P
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	YES	(ÑO)
	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	000
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	YES	(NO)
	significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	Go to Question 7 YES	NO
4	is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	Wetland is a Category 3 wetland Go to Question 8a	Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	Go to Question 8b

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

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygađenus 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 buxbaumi
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellite
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwell
Ranımculus 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 virginica		Solidago riddelli
	Salix serissima	Xyris difformis		3
	Solidago ohioensis	, ~		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: Well	15.1	Rater(s): Lauren	Zielk.	Date: 9/10/14
2 2	Metric 1. Wetland A	rea (size).		
max 6 pts. subtotal	Select one size class and assign scc) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
7 9	Metric 2. Upland bเ	affers and surrou	ınding	land use.
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years	om (164ft) or more around wette 25m to <50m (82 to <164ft) at the 10m to <25m (32ft to <82ft) average <10m (<32ft) around v 5. Select one or double check or older forest, prairie, savannal), shrub land, young second gr sidential, fenced pasture, park,	and perimete round wetlan around wetla wetland perir and average h, wildlife are owth forest. , conservatio	rr (7) d perimeter (4) and perimeter (1) meter (0) b. ba, etc. (7) (5) n tillage, new fallow field. (3)
12 21	Metric 3. Hydrology	/-		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrolog	ace water (3) ike or stream) (5) nly one and assign score.	3d. Durati	ectivity. Score all that apply. 100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1) on inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) average.
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	×	point source (nonstormwater) filling/grading road bed/RR track dredging other
7 28	Metric 4. Habitat Al	teration and Dev	elopm	ent.
	4a. Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)		e.	
	4c. Habitat alteration. Score one or None or none apparent (9)		erved	
28 subtotal this pa- last revised 1 Februar	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective cutting woody debris removal toxic pollutants		shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

Site: y	Vet L	5. Rater	(s): Lavre	n Zielke Date: 9/10/14
ŞI	28 ubtotal first pa	age		
0	28	Metric 5. Special Wetlar	ıds.	
max 10 pts.	subtotal	Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Mature forested welland (5) Lake Erie coastal/tributary wetland-t Lake Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydrol nings) (10) eatened or enda fowl habitat or	ngy (5) ngered species (10) usage (10)
-\	27	Metric 6. Plant commun	ities, inte	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation (Community Cover Scale
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's
		2 Emergent		vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Mudflats	•	vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one.		
		High (5)	Narrative De	scription of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally w/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)	•	
		Absent (1)	Mudflat and	Open Water Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/lussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh		
		Amphibian breeding pools	Microtopogra	aphy Cover Scale
			0	Absent
			1	Present very small amounts or if more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
2				and of highest quality
1 1				

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	12	
	Metric 4. Habitat	nate	A
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	waiter .	
	TOTAL SCORE	27	Category based on score breakpoints

· Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

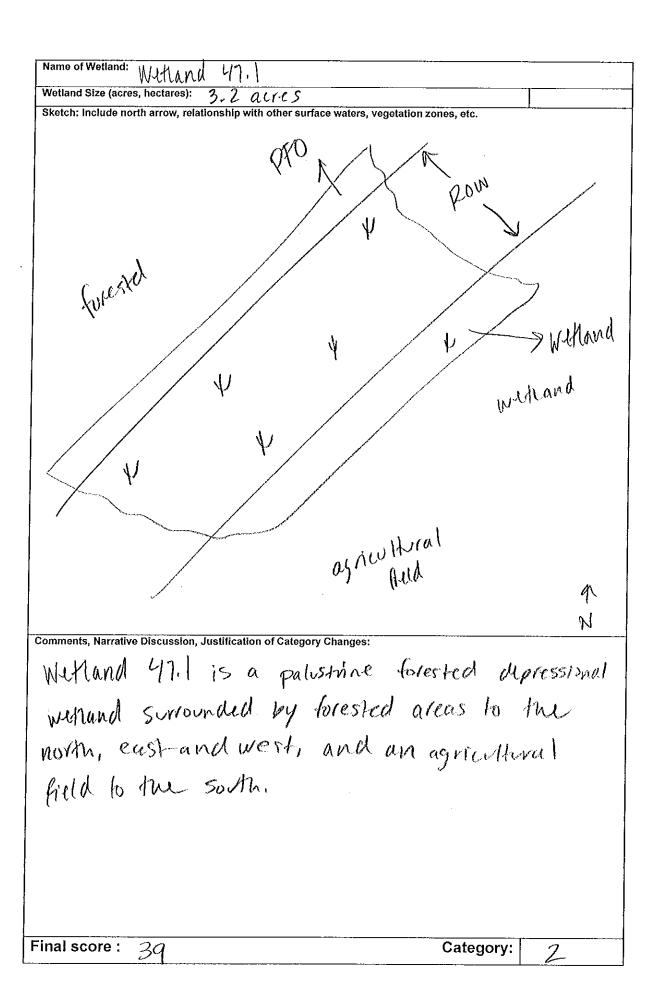
Choices	Circle one	<u> </u>	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score <i>less</i> than the Category 2 scoring 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	(ÑO)	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 ecreational functions AND the wetland was not extegorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by his method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category				
Choose one	(Category 1)	Category 2	Category 3	

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lavren Zielke	
Date: 9/10/14	
Affiliation: EPM	,
Address: 1701 Golf Rd., Svite 1-700, Rolling Meadows, IZ	-60008
Phone Number: 847 - 258 - 8941	
e-mail address: www.zielke@em.com	
Name of Wetland: With and 47.	***
Vegetation Communit(ies): PFO	
YIU	
HGM Class(es): SCUSONALLY IN UNDULUL, SCUSINALLY SANTALED Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
see mupbook-page 24.	
Sec may bear frey and	
Lat/Long or UTM Coordinate Sec Aqualic Resources Table	· · · · · · · · · · · · · · · · · · ·
USGS Quad Name	Graffon
County	Lorain
Township	Carlisle
Section and Subsection	None
Hydrologic Unit Code	4110001
Site Visit	9/2/14
National Wetland Inventory Map	News T
Ohio Wetland Inventory Map	
Soil Survey	-
Delineation report/map	Dane 24



Scoring Boundary Worksheet

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

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

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

Narrative Rating

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

#	Question	Circle one	
1	Critical Habitat. Is the welland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has	YES	100
	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	
3	Documented High Quality Wetland. Is the wetland on record in Natural Hentage Database as a high quality wetland?	YES	(NO)
	g	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)
	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, 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	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses,	YES	(6)
	particularly Sphagnum spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	Wetland is a Category 3 wetland	Go to Question 7
	· · · · · · · · · · · · · · · · · · ·	Go to Question 7	
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%?		
8a	"Old Growth Forest." Is the wetland a forested wetland and is the	Go to Question 8a YES	(SN
	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	Wetland is a Category 3 wetland.	Go to Question 8b
	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 8b	

d8	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible	Go to Question 9a
		Category 3 status. Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
	i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Does the wetland have a predominance of native species within its	YES	NO
	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES	NO
		Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be	YES	(NO)
	characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the	Wetland is a Category 3 wetland.	Go to Question 11
	gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Go to Question 11	
11	Relict Wet Prairies. Is the wetland a relict wet prairie community	YES	(NO)
	dominated by some or all of the species in Table 1. Extensive prairies	Motional should be	Complete
	were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion	Wetland should be evaluated for possible	Complete Quantitative
	Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Category 3 status	Rating
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	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 arımdinacea	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
	Pamassia 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	Woodvardia 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: Wlf	47.1	Rater(s): Lwren 2	ieke	Date: 9/10/14
3 3	Metric 1. Wetland A	rea (size).		•
max 6 pts. subtotal	Select one size class and assign sco) 0.2ha) (5 pts) ha) (4 pts)) (3 pts) 2ha) (2pts)		
7 10	Metric 2. Upland bu	ffers and surroun	ding land use.	
max 14 pts. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth o LOW. Old field (>10 years MODERATELY HIGH. Re	m (164ft) or more around wetland 25m to <50m (82 to <164ft) arou e 10m to <25m (32ft to <82ft) aro average <10m (<32ft) around wet	i perimeter (7) nd wetland perimeter (4) bund wetland perimeter (1) lland perimeter (0) d average. wildlife area, etc. (7) th forest. (5) busservation tillage, new fallo	ow field. (3)
12 22	Metric 3. Hydrology	'.		
max 30 pts. subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) Sources of Water, Score all that	ce water (3) ke or stream) (5) 3 nly one and assign score.	Part of wetland/up Part of riparian or d. 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) led/saturated (3)
	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observ ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR trac dredging other	_
9 31	Metric 4. Habitat Al	teration and Deve	lopment.	
max 20 pts. subtotal	4a. Substrate disturbance. Score on None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	-		
	4c. Habitat alteration. Score one or None or none apparent (9)	louble check and average. Check all disturbances observ	ed	
Subtotal this pa	Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutting selective culting woody debris removal toxic pollutants	shrub/sapling rem herbaceous/aqua sedimentation dredging faming nutrient enrichme	tic bed removal

Site: \	Vet-	47.1	Rater(s): Law	ren ziellee	Date: 4/10/14
sı	3 (ubtotal first p	Metric 5. Special W	etlands.		
max 10 pts.	subtotal	Charle all that analy and a con-			
mex to pis.	Subrotal	Check all that apply and score as indi Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary (1) Lake Plain Sand Prairies (10) Known occurrence state/fect Significant migratory songb Category 1 Wetland. See (1)	wetland-unrestricted hydro wetland-restricted hydro wak Openings) (10) deral threatened or enda ird/water fowl habitat or Question 1 Qualitative R	logy (5) ingered species (10) usage (10) ating (-10)	
8	39	Metric 6. Plant com	munities, int	erspersion, microto	pography.
max 20 pts.	subtotal	」 ─6a. Wetland Vegetation Communities	Vegetation	Community Cover Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	71 acres) contiguous area
		Aquatic bed	1	Present and either comprises sma	
		Emergent		vegetation and is of moderate q	•
		Shrub		significant part but is of low qual	
		2 Forest	2	Present and either comprises sign	
		Mudflats		vegetation and is of moderate qu	uality or comprises a small
		Open water		part and is of high quality	
		Other	. 3	Present and comprises significant	part, or more, of wetland's
_		6b. horizontal (plan view) Interspersio	n	vegetation and is of high quality	
		Select only one.	Namatha Da	and of the sector of the secto	
		High (5)		scription of Vegetation Quality	
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predomin	
		Moderately low (2)		disturbance tolerant native speci	
		Low (1)	mod	Native spp are dominant compone	
		None (0)		although nonnative and/or distur	
		6c. Coverage of invasive plants. Refe	ır	can also be present, and species moderately high, but generally w	
		to Table 1 ORAM long form for list. Ac		threatened or endangered spp	vo presence or rare
		or deduct points for coverage	high	A predominance of native species	with poppotive con
		Extensive >75% cover (-5)	riigii	and/or disturbance tolerant nativ	* *
		Moderate 25-75% cover (-3)		absent, and high spp diversity ar	
		Sparse 5-25% cover (-1)		the presence of rare, threatened	
		Nearly absent <5% cover (0)		the presence of fare, threatened	, or endangered spp
		X Absent (1)		Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acr	es)
		Vegetated hummucks/tussue		Moderate 1 to <4ha (2.47 to 9.88	<u> </u>
		Coarse woody debris >15cm		High 4ha (9.88 acres) or more	40103)
		Standing dead >25cm (10in)	` '	Tright the (elect dates) of more	
		Amphibian breeding pools		aphy Cover Scale	
		<u> </u>	0	Absent	
			1	Present very small amounts or if m	ore common
				of marginal quality	
			2	Present in moderate amounts, but	not of highest
				quality or in small amounts of hig	
			3	Present in moderate or greater am	
20				and of highest quality	
4 U					

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	12.	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	8	
	TOTAL SCORE	39	Category based on score breakpoints modified 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

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

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

End of Ohio Rapid Assessment Method for Wetlands.

Appendix D

Photolog

ERM PHOTOGRAPHIC LOG

Photographer: Lauren Zielke

Project Name:

Avon Lake Gas Addition Project

Site Location:

Lorain County, Ohio

Project No.

0237278

Photo No.

Date: 9/3/14

Direction Photo Taken:

Southeast

Description:

Wetland 25.1 forested wetland.



Photo No. 2

Date: 9/3/14

Direction Photo Taken:

North

Description:

Wetland 32.1 forested wetland.



PHOTOGRAPHIC LOG Photographer: Lauren Zielke

Project Name:Site Location:Project No.Avon Lake Gas Addition ProjectLorain County, Ohio0237278

Photo No.	Date:
3	9/3/14

Direction Photo Taken:

North

Description:

Wetland 33.1 forested wetland.



Photo No.	Date: 9/3/14
Direction Ph	oto

Direction Photo Taken:

North

Description:

Wetland 37.1 forested wetland.



PHOTOGRAPHIC LOG Photographer: Lauren Zielke Project Name: Avon Lake Gas Addition Project Lorain County, Ohio PHOTOGRAPHIC LOG Photographer: Lauren Zielke O237278

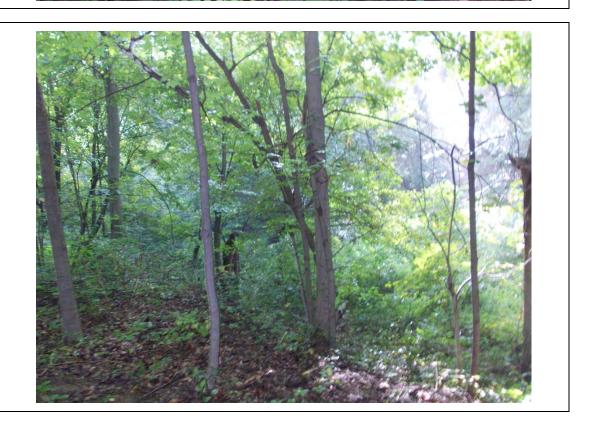
Photo No.	Date:	
5	9/3/14	
Direction Ph	oto	
Taken:		
Vest		
Description:	:	
Vetland 41.1	forested	100 年
ortion of for		
scrub shrub	wetland	
orab ornab (Wottaria.	

Photo No. 6 9/3/14
Direction Photo
Taken:

North

Description:

Wetland 42.1 forested wetland.



PHOTOGRAPHIC LOG Photographer: Lauren Zielke Project Name: Avon Lake Gas Addition Project Lorain County, Ohio PHOTOGRAPHIC LOG Photographer: Lauren Zielke O237278

Photo No.	Date:	
7	9/10/14	
Direction Ph	noto	
Taken:		
South		
Description		
•		
Wetland 43.1	1 forested	
wetland, tribu		
East Branch	of Black	
River.		

Photo No. Date: 9/10/14

Direction Photo Taken:

South

Description:

Wetland 44.1 forested wetland.



PHOTOGRAPHIC LOG Photographer: Lauren Zielke

Project Name: Site Location:

Avon Lake Gas Addition Project Lorain County, Ohio 0237278

South

Taken:

Description:

Wetland 45.1 emergent wetland.



Project No.

Photo No. Date: 9/2/14

Direction Photo Taken:

Northeast

Description:

Wetland 47.1 forested wetland.



Attachment J

Aerial Overview Maps (11x17)

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New Water Name	Cowardin_Code	HGM_Code	Measurement_Type			Waters_Types	Latitude ¹	Longitude ²	Local Waterway
Wetland 3	PSS	Depressional	Area		ACRE	RPWWN	41.4911439		Powdermaker Ditch
Wetland 5	1 33	Бергеззіона	Aicu	0.0	ACILL	111 00 0010	41.4910958	-82.0590751	rowdermaker bitch
	PFO	Depressional	Area	0.0	ACRE	RPWWN	41.4909306	-82.0590998	
Wetland 4	PSS	Depressional	Area		ACRE	RPWWN	41.4901611		Powdermaker Ditch
Wetland 4	PSS	<u> </u>	Area		ACRE	RPWWN	41.4901611	-82.0589124	Powdermaker Ditti
	P33	Depressional	Alea	0.1	ACKE	KPVVVVIV	41.4900309	-82.0588482	
	DEO	Dannasianal	A == 0	0.3	ACDE	D DVA/VA/AL	41.4896029	-82.0587581	
Wastan J C	PFO	Depressional	Area	0.2	ACRE	RPWWN			Daniel and a large Ditale
Wetland 5							41.4873720		Powdermaker Ditch
	PEM	Depressional	Area	0.6	ACRE	RPWWN	41.4860955	-82.0575499	
Wetland 6							41.4824222		Tributary to French Creek
	PEM	Depressional	Area		ACRE	RPWWD	41.4794703	-82.0598615	
Wetland 7	PSS	Depressional	Area		ACRE	RPWWD	41.4784934		Tributary to French Creek
	PFO	Depressional	Area			RPWWD	41.4784153	-82.0603959	
	PSS	Depressional	Area	0.6	ACRE	RPWWD	41.4776108	-82.0608027	
	PFO	Depressional	Area			RPWWD	41.4771309	-82.0607954	
	PEM	Depressional	Area	0.2	ACRE	RPWWD	41.4760950	-82.0615158	
	PFO	Depressional	Area	2.4	ACRE	RPWWD	41.4758427	-82.0615725	
	PSS	Depressional	Area	0.6	ACRE	RPWWD	41.4728600	-82.0631700	
							41.4719279	-82.0634926	•
	PEM	Depressional	Area	0.1	ACRE	RPWWD	41.4718469	-82.0635113	
Wetland 8							41.4574122	-82.0646311	Kline Ditch
	PSS	Depressional	Area	2.8	ACRE	RPWWD	41.4548330	-82.0667830	
Wetland 9							41.4523401	-82.0667778	Tributary to Kline Ditch
	PFO	Depressional	Area	0.1	ACRE	RPWWD	41.4517214	-82.0668489	,
	PSS	Depressional	Area		ACRE	RPWWD	41.4499611	-82.0669032	
	PFO	Depressional	Area		ACRE	RPWWD	41.4498979	-82.0668966	
	1.0						41.4496259	-82.0669235	
	PFO	Depressional	Area	0.0	ACRE	RPWWD	41.4495537	-82.0669228	
Wetland 10	PEM	Depressional	Area			RPWWD	41.4491663		Tributary to Kline Ditch
Wedana 10	PFO	Depressional	Area		ACRE	RPWWD	41.4470004	-82.0669395	Thousany to Rime Biten
	PSS	Depressional	Area		ACRE	RPWWD	41.4469817	-82.0672895	
	F 33	Depressional	Aica	0.2	ACILL	KF W W D	41.4460001	-82.0672670	
	PEM	Doprossional	Aroa	0.1	ACDE	RPWWD	41.4443022	-82.0673159	
NA/	PEIVI	Depressional	Area	0.1	ACRE	KPWWD			Taile at a mart of Mine Ditale
Wetland 12	DEM	Dannasians	A == 0		ACDE	DDW/M/D	41.4442979		Tributary to Kline Ditch
	PEM	Depressional	Area		ACRE	RPWWD	41.4418968	-82.0673787	
	PFO	Depressional	Area		ACRE	RPWWD	41.4400714	-82.0670998	
	PEM	Depressional	Area	0.3	ACRE	RPWWD	41.4388280	-82.0669114	
							41.4385435	-82.0667235	
	PFO	Depressional	Area	0.5	ACRE	RPWWD	41.4380002	-82.0671147	
Wetland 13							41.4360171		Tributary to Kline Ditch
	PEM	Depressional	Area	0.0	ACRE	RPWWD	41.4359813	-82.0673869	

New Water Name	Cowardin_Code	HGM_Code	Measurement_Type	Amount	Units	Waters_Types	Latitude ¹	Longitude ²	Local_Waterway
Wetland 14	PFO	Depressional	Area	0.0	ACRE	RPWWD	41.4264969	-82.0671105	Jungbluth Ditch
	PSS	Depressional	Area	0.1	ACRE	RPWWD	41.4264867	-82.0669783	
	PFO	Depressional	Area	0.2	ACRE	RPWWD	41.4263783	-82.0668984	
							41.4259824	-82.0670762	
	PSS	Depressional	Area	0.1	ACRE	RPWWD	41.4257585	-82.0672357	
Wetland 15							41.4243856		Jungbluth Ditch
	PFO	Depressional	Area	0.1	ACRE	RPWWD	41.4241045	-82.0675036	
Wetland 16	PFO	Riverine	Area	0.0	ACRE	RPWWD	41.4220729		Jungbluth Ditch
							41.4219413	-82.0675265	
	PSS	Riverine	Area		ACRE	RPWWD	41.4218995	-82.0675254	
Wetland 17	PFO	Depressional	Area	0.4	ACRE	PRPWWD	41.4150664		Ridgeway Ditch
							41.4162556	-82.0683175	
	PSS	Depressional	Area		ACRE	PRWWD	41.4144844	-82.0681223	
Wetland 18	PFO	Depressional	Area	0.0	ACRE	RPWWD	41.4143033		Ridgeway Ditch
							41.4142964	-82.0683366	
	PSS	Depressional	Area	0.0	ACRE	RPWWD	41.4135027	-82.0683555	
							41.4139148	-82.0680535	
	PFO	Depressional	Area	0.1	ACRE	RPWWD	41.4134428	-82.0680684	
Wetland 19							41.1334623		Ridgeway Ditch
	PFO	Depressional	Area	0.4	ACRE	RPWWD	41.4121120	-82.0687439	
Wetland 20							41.4114962		Ridgeway Ditch
	PSS	Depressional	Area	0.0	ACRE	RPWWN	41.4111332	-82.0683610	
Wetland 21	PFO	Depressional	Area	0.4	ACRE	RPWWD	41.4095774	-82.0683821	Ridgeway Ditch
							41.4057436	-82.0686870	3
	PSS	Depressional	Area	0.1	ACRE	RPWWD	41.4056189	-82.0687376	
Wetland 22	PFO	Depressional	Area	7.9	ACRE	RPWWD	41.4033856	-82.0670596	Ridgeway Ditch
	PSS	Depressional	Area	2.7	ACRE	RPWWD	41.3947586	-82.0679473	
	PFO	Depressional	Area	1.5	ACRE	RPWWD	41.3916295	-82.0677564	
	PSS	Depressional	Area	0.8	ACRE	RPWWD	41.3895392	-82.0680650	
	PFO	Depressional	Area	8.5	ACRE	RPWWD	41.3884896	-82.0678447	
							41.3819617	-82.0664991	
	PEM	Depressional	Area	0.3	ACRE	RPWWD	41.3814508	-82.0663909	
Wetland 24	PSS	Depressional	Area	0.3	ACRE	RPWWD	41.3750647	-82.0669039	Tributary to Ridgeway Ditch
	PFO	Depressional	Area	0.8	ACRE	RPWWD	41.3749096	-82.0667180	
							41.3740317	-82.0665169	4
	PFO	Depressional	Area	2.5	ACRE	RPWWD	41.3717216	-82.0665910	
Wetland 25	PSS	Depressional	Area	0.1	ACRE	RPWWN	41.3715478	-82.0664695	Tributary to Ridgeway Ditch
	PFO	Depressional	Area	0.5	ACRE	RPWWN	41.3714197	-82.0664687	
							41.3702233	-82.0670364	
	PSS	Depressional	Area	0.1	ACRE	RPWWN	41.3700090	-82.0671983	
Wetland 25.1							41.3692093		Tributary to Ridgeway Ditch
	PFO	Depressional	Area	0.4	ACRE	RPWWN	41.3685867	-82.0683564	
Wetland 26							41.3537215	-82.0637765	Tributary to Ridgeway Ditch
	PFO	Depressional	Area	1.7	ACRE	RPWWD	41.3518180	-82.0620780	
Wetland 27							41.3491264	-82.0621456	Tributary to Ridgeway Ditch
	PEM	Depressional	Area	0.2	ACRE	RPWWN	41.3485306	-82.0621416	

New Water Name	Cowardin_Code	HGM_Code	Measurement_Type	Amount	Units	Waters_Types	Latitude ¹	Longitude ²	Local_Waterway
Wetland 29	PSS	Depressional	Area	0.6	ACRE	RPWWN	41.3402797	-82.0613636	Willow Creek
	PEM	Depressional	Area	1.2	ACRE	RPWWN	41.3402012	-82.0614662	1
	PEM	Depressional	Area	1.7	ACRE	RPWWN	41.3399892	-82.0642357	
	PSS	Depressional	Area	0.5	ACRE	RPWWN	41.3383643	-82.0646217	
	PFO	Depressional	Area	2.1	ACRE	RPWWN	41.3378165	-82.0644032	1
							41.3353759	-82.0641412	
	PSS	Depressional	Area	0.1	ACRE	RPWWN	41.3349930	-82.0639547	
Wetland 32.1							41.3269897	-82.0611086	Jackson Ditch
	PFO	Depressional	Area	0.9	ACRE	RPWWN	41.3257677	-82.0610995	
Wetland 33.1							41.3250906	-82.0614093	Jackson Ditch
	PEM	Depressional	Area	0.4	ACRE	RPWWN	41.3243408	-82.0618199	
Wetland 34	PEM	Depressional	Area	0.0	ACRE	RPWWD	41.3227933	-82.0591082	Jackson Ditch
							41.3228347	-82.0590433	
	PFO	Depressional	Area	0.1	ACRE	RPWWD	41.3225430	-82.0590455	
Wetland 35	PFO	Depressional	Area	0.0	ACRE	RPWWN	41.3223728	-82.0593326	Jackson Ditch
							41.3220707	-82.0593312	1
	PSS	Depressional	Area	0.3	ACRE	RPWWN	41.3214440	-82.0593146	
						RPWWN	41.3204905	-82.0593235	1
	PFO	Depressional	Area	0.9	ACRE		41.3180454	-82.0593071	
							41.3177676	-82.0588923	
	PEM	Depressional	Area	0.0	ACRE	RPWWN	41.3177474	-82.0588709	
Wetland 37.1							41.3111654	-82.0585971	Alexander Ditch
	PFO	Depressional	Area	2.5	ACRE	RPWWN	41.3066208	-82.0588117	
Wetland 38							41.3056299	-82.0602225	Alexander Ditch
	PFO	Depressional	Area	0.7	ACRE	RPWWD	41.3056325	-82.0623965	1
Wetland 41.1							41.2991643	-82.0744929	East Branch of the Black River
	PSS	Depressional	Area	0.0	ACRE	RPWWD	41.2995107	-82.0749461	1
							41.2995627	-82.0765710	1
	PFO	Depressional	Area	0.2	ACRE	RPWWD	41.2990746	-82.0769677	1
Wetland 43.1							41.2995618	-82.0825120	
	PFO	Depressional	Area	0.1	ACRE	RPWWD	41.2995562	-82.0832353	1
Wetland 44	PEM	Slope/Riverine	Area	0.1	ACRE	RPWWD	41.2994967	-82.0840327	East Branch of the Black River
							41.2995074	-82.0848173	1
	PFO	Slope/Riverine	Area	0.1	ACRE	RPWWD	41.2993553	-82.0849489	1
Wetland 44.1							41.2990928	-82.0886786	East Branch of the Black River
	PFO	Depressional	Area	0.7	ACRE	RPWWD	41.2974207	-82.0886852	1
							41.2969187	-82.0886811	
	PFO	Depressional	Area	0.1	ACRE	RPWWD	41.2963776	-82.0881261	≟

New Water Name	Cowardin_Code	HGM_Code	Measurement_Type	Amount	Units	Waters_Types	Latitude ¹	Longitude ²	Local_Waterway
Wetland 45							41.2951515	-82.0878581	East Branch of the Black River
	PFO	Depressional	Area	0.4	ACRE	RPWWN	41.2945888	-82.0880454	
Wetland 45.1							41.2946916	-82.0885281	East Branch of the Black River
	PEM	Depressional	Area	0.1	ACRE	RPWWN	41.2944914	-82.0888509	
Wetland 47							41.2799283	-82.0922952	Dent Ditch
	PFO	Depressional	Area	0.1	ACRE	RPWWD	41.2797098	-82.0929789	
Wetland 47.1							41.2798431	-82.0929173	Dent Ditch
	PFO	Depressional	Area	1.4	ACRE	RPWWD	41.2786739	-82.0954374	
Stream 1			Linear	25	FOOT	RPW	41.4824195	-82.0574859	
Unnamed Stream 1			Linear	147	FOOT	RPW	41.4575318	-82.0644276	
Stream 3			Linear	175	FOOT	RPW	41.4505042	-82.0667011	
Stream 4			Linear	59	FOOT	RPW	41.4442777	-82.0671991	
Stream 5			Linear	83	FOOT	RPW	41.4342089	-82.0672959	
Jungbluth Ditch			Linear	54	FOOT	RPW	41.4258246	-82.0671073	
Stream 6			Linear	14	FOOT	RPW	41.4076326	-82.0683932	
Ridgeway Ditch			Linear	25	FOOT	RPW	41.4033996	-82.0670845	
Unnamed Stream 2			Linear	121	FOOT	RPW	41.3988701	-82.0663771	
Unnamed Stream 3			Linear	101	FOOT	RPW	41.3614361	-82.0667298	
Stream 7			Linear	100	FOOT	RPW	41.3540765	-82.0646961	
Jackson Ditch			Linear	86	FOOT	RPW	41.3225274	-82.0592083	
Alexander Ditch			Linear	84	FOOT	RPW	41.3056505	-82.0604524	`
Unnamed Stream 4			Linear	113	FOOT	RPW	41.3013605	-82.0683054	
Dent Ditch			Linear	61	FOOT	RPW	41.2760736	-82.0955804	

¹Coordinates corresponding to the location where the northern-most point of the wetland intersects the ROW.

²Coordinates corresponding to the location where the southern-most point of the wetland intersects the ROW.

CASE NO. 14-1717-GA-BLN LON AVON LAKE GAS ADDITION PROJECT PROPOSED NATURAL GAS PIPELINE

ATTACHMENT J

SECTION 401 WATER QUALITY CERTIFICATION APPLICATION

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in

Case No(s). 14-1717-GA-BLN

Summary: Application of NRG Ohio Pipeline Company LLC continued - Attachments I (Part 11)- J electronically filed by Teresa Orahood on behalf of Sally Bloomfield