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

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

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

Site: Brunstefter W-1	Rater(s): L.Sayne	Date: 11/15/12
Barting A Westlemel	•	
3 3 Wetric 1. Wetland A	,	
max 6 pts. subtotal Select one size class and assign sec >50 acres (>20.2ha) (6 pts	ore.	
25 to <50 acres (10.1 to <	20.2ha) (5 pts)	
10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h		
0.3 to <3 acres (0.12 to <	I.2ha) (2pts)	
0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts		
Metric 2 Unland by	uffers and surrounding land use) .
/		
max 14 pts. subtotal 2a. Calculate average buffer width.	Select only one and assign score. Do not double check.	
レ MFDIUM, Buffers average	0m (164ft) or more around wetland perimeter (7) e 25m to <50m (82 to <164ft) around wetland perimeter (4)	I
NARROW, Buffers avera	ge 10m to <25m (32ft to <82ft) around wetland perimeter (s average <10m (<32ft) around wetland perimeter (0)	1)
2h Intensity of surrounding land us	e. Select one or double check and average.	
VERY LOW, 2nd growth	or older forest, prairie, savannah, wildlife area, etc. (7) s), shrub land, young second growth forest. (5)	•
MODERATELY HIGH, R	esidential, fenced pasture, park, conservation tillage, new t	allow field. (3)
	open pasture, row cropping, mining, construction. (1)	
15 25 Metric 3. Hydrolog	y.	
max 30 pts. subtotal 3a. Sources of Water. Score all that	at apply. 3b. Connectivity. Score	all that apply.
High pH groundwater (5)	100 year flood	plain (1)
Other groundwater (3) Precipitation (1)		m/lake and other human use (1) d/upland (e.g. forest), complex (1)
3 Seasonal/Intermittent sur	ace water (3) Part of ripariar	n or upland corridor (1) saturation. Score one or dbl check.
Perennial surface water (i 3c, Maximum water depth. Select		anently inundated/saturated (4)
>0.7 (27.6in) (3)	Regularly inun	idated/saturated (3)
0.4 to 0.7m (15.7 to 27.6i 		turated in upper 30cm (12in) (1)
3e. Modifications to natural hydrolo	gic regime. Score one or double check and average.	
None or none apparent (2) Check all disturbances observed point source (i	nonstormwater)
Recovered (7) Recovering (3)	tile 🔀 filling/grading	
Recent or no recovery (1)		. 1
	stormwater input other 293	ement_
Metric 4. Habitat A	Iteration and Development.	,
10 31		
max 20 pts. subtotal 4a, Substrate disturbance. Score of None or none apparent (4		
Recovered (3)	''	
Recovering (2) Recent or no recovery (1)	_	
4b. Habitat development. Select o	nly one and assign score.	
Excellent (7) Very good (6)		
Good (5)		
Moderately good (4) Sair (3)		
Poor to fair (2)		
Poor (1). 4c. Habitat alteration. Score one o	r double check and average.	7
None or none apparent (Check all disturbances observed	romovol
Recovered (6) Recovering (3)		removal quatic bed removal
Recent or no recovery (1)	clearcutting sedimentation	J.
77	woody debris removal X farming	
	toxic pollutants nutrient enrich	ment
subtotal this page last revised 1 February 2001 jjm		

End of Quantitative Rating. Complete Categorization Worksheets.

2

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

and of highest quality

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
_	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (O)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (10)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
•	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (10)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (10)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative	Metric 1. Size	3	
Rating	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	15	
	Metric 4. Habitat	12	
	Metric 5. Special Wetland Communities	D	10 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T
	Metric 6. Plant communities, interspersion, microtopography	Ŭ	
	TOTAL SCORE	41	Category based on score breakpoints MDD 2

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

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions:	YES Wetland is	(N)	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
Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	categorized as a Category 3 wetland		Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM Evaluate the wetland using the 1) narrative criteria in OAC
Did you answer "Yes" to any of the following questions:	YES Wetland should be	(NO)	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
Narrative Rating Nos. 1, 8b, 9b, 9e, 11	evaluated for possible Category 3 status		wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category. Is quantitative rating score <i>greater</i> than the Category 2
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is	(40)	scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative
Handing realing rest	categorized as a Category 1 wetland		criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(10)	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO .	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
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.

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

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lawra (Sayre
Date: 11 15 1	2
Affiliation: ENVIVOS	Cience, Inc.
Address: 3781 I	parrow Rd, Stow OH 44224
to to) 688-0111
e-mail address: Wayr	e(DENVIVOSCIENCE INC. com
Name of Wetland:	W-2
Vegetation Communit(les):	EM 1 P88
HGM Class(es):	
Location of Wetland: include n	nap, address, north arrow, landmarks, distances, roads, etc.
See attach	ed maps
	<i>,</i>
	186. TASAN AA ARABIS (1861) A EE STAN AR
Lat/Long or UTM Coordinate	41.181189°N -80.837241°W
USGS Quad Name	Warren
County	Trumbull
Township	LordStown
Section and Subsection	
Hydrologic Unit Code	05030103
Site Visit	11/15/12
National Wetland Inventory Map	en clused
Ohio Wetland Inventory Map	**Continuosistif*
Soil Survey	enclosed enclosed
Delineation report/map	enclosed.

tland Size (acres, hectares): \(\int\), \(\int\)	
والمنافضة المنافضة المنافضة المنافضة والمنافضة	
Standard Standard Land and Alexander (1988) and the standard of the standard standard (1988) and the s	
amouthiral	
Agricultural Field	
	56
	Sign Forest
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Comments, Narrative Discussion, Justification	of Category Changes:

Scoring Boundary Worksheet

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

	the standarios	done?	not applicable
# Step 1	Steps in properly establishing scoring boundaries Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	/	
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), 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	
	a vi a Litabilitate to the wetland in a township, section, or subsection of	YES	(NO)
1	a United States Geological Survey 7.5 militate Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species?	Wetland should be evaluated for possible Category 3 status	Go to Question 2
	threatened species which can be found in Onio, the Indiana Barriad had critical habitat designated (50 CFR 17.95(a)) and the piping plover had critical habitat designated (65 CFR 14.812 July 6. 2000).	Go to Question 2	
2	1 = 4 - 1 - 4 - Endangered Species Is the Welland Mowil to Contain	YES	(40)
_	an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	
	Documented High Quality Wetland. Is the wetland on record in	YES	(NO)
3	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	
	Significant Breeding or Concentration Area. Does the wetland	YES	(NO)
4	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	45
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre)	YES	(NO)
9	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 by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, or by Phalaris arundinacea, Lythrum salicaria, or Phragmites australis, o	Wetland is a Category 1 wetland	Go to Question 6
	2) an acidic pond created or excavated on mined lands that has little of	Go to Question 6	
6	no vegetation? Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	(NO)
U	significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% 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%?	Go to Question 7	
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES	(NO)
7	Fens. Is the wetland a carbon accumulating (bear, mast) had is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of	Wetland is a Category 3 wetland	Go to Question 8a
	invasive species listed in Table 1 is <25%?	Go to Question 8a	
	the wetland a forested wetland and is the	YES	(NO)
8a	forest characterized by, but not limited to, the following characteristics. overstory canopy trees of great age (exceeding at least 50% of 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 canoples; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	Go to Question 8b	

	Mature forested wetlands. Is the wetland a forested wetland with	YES	(NO)
· 8b	Mature forested wetlands. Is the wetland to solve the solve of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(40)
Ju	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	Dear the wetland's hydrology result from measures designed to	YES	NO
90	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	ИО
90	i.e. the wetland is hydrologically unrestricted (no lakeward of appears) border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These	Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.	YES	NO
9d	vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
		Go to Question 10	
9e	Does the wetland have a predominance of non-native or disturbance	YES ·	NO
56	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	(man,
	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
10	Lucas, Fulton, Henry, or Wood Counties and can the wetand be characterized by the following description: the wetland has a sandy characterized by the following matter, a water table often within	Wetland is a Category 3 wetland.	Go to Question 11
	several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	Go to Question 11	
	type of wetland and its quality.	YES	(NO')
11	dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyardot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Wetland should be evaluated for possible Category 3 status	Rating
	Montgomery, Van Wert etc.).	Complete Quantitative Rating	

Table 1. Characteristi	c plant species.	bog species	Oak Opening species	wet prairie species
invasivelexotic spp Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus. Ranunculus ficaria Rhamnus firangula Typha angustifolia Typha xglauca	fen species Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamogrostis stricta Carex atherodes Carex buxbaumit Carex pellita Carex sartwelli Gentiana andrewsi Helianthus grosseserratu. Liatris spicate Lysimachia quadriflore Lythrum alatun Pycnanthemum virginianum Silphium terebinthinaceun Sorghastrum nutan Spartina pectinat Solidago riddell

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

Site: BY	UNA	Lalder	W-7-	Rater(s):	L. Sayne		Date: 11/15	12
Site. 10	urig	101101	V	, , , , , , , , , , , , , , , , , , , ,	- 0			
0	\vee	Metric 1.).			
max 6 pts. s		25 to <5 10 to <5 3 to <10 0.3 to < 0.1 to <	es (>20.2ha) (6 pts 50 acres (10.1 to < 25 acres (4 to <10.) acres (1.2 to <4h 3 acres (0.12 to < 0.3 acres (0.04 to	s) 20,2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1,2ha) (2pts) <0,12ha) (1 pt)		ling land use		
7	1 1					ling land use	7 a	
max 14 pfs. 8	subtotal	2b. Intensity of s Wery Low. MODE VERY Low. MODE HIGH.	Buffers average to M. Buffers average to M. Buffers average to M. Buffers average to M. Buffer average to M. Buffer urrounding land us LOW. 2nd growth Old field (>10 years RATELY HIGH. From Urban, industrial,	om (164t) of tho ge 25m to <50m (ige 10m to <25m s average <10m ise. Select one o or older forest, p rs), shrub land, y lesidential, fence open pasture, ro	18 abound welland 82 to <164ft) aroun (32ft to <82ft) aroun (<32ft) around wella rairie, savannah, wi	a weitalia perimeter (+) and wetland perimeter (*) and perimeter (0) average. ildlife area, etc. (7) n forest. (5) nservation tillage, new fa		,
20	\sim	Metric 3.	Hydrolog	у.				
<u> </u>	subtotal	High p Other y Precip Seaso Perent 3c. Maximum w >0.7 (2 0.4 to <0.4m 3e. Modification Recov Recov Recor	or none apparent (ered (7) ering (3) It or no recovery (1	face water (3) (lake or stream) (only one and assin) (2) ogic regime. Scc 12) Check all di ditch tile dike weir storm	5) 30 sign score. Fre one or double cl sturbances observe water input	Part of wetland Part of riparial Part of	plain (1) m/lake and other hum d/upland (e.g. forest), n or upland corridor (1 saturation. Score one lanently inundated/sat dated/saturated (3) undated (2) sturated in upper 30cm	complex (1)) e or dbl check urated (4)
16	,	Metric 4.	Habitat A	Alteration	and Deve	lopment.		•
max 20 pts.	subtotal	When the second	rately good (4) 3) to fair (2) (1) ration. Score one	(4) I) only one and ass or d <u>ouble check</u>	ign score. and average.	,		7
			or none apparent /ered (6)	(9) Check all d mowi	listurbances observ ng	shrub/sapling		
	U3	Recei	vering (3) nt or no recovery (1) grazi		herbaceous/a sedimentatio dredging farming nutrient enrice		
last revised	1 Febru	ary 2001 jjm						

Site: BYUNSYCHOW W-2 Rater(s)	: L.Sa	Ure Date: "/ 15/12
Site: Brunstetten W-2 Rater(s)		0
43 subtotal first page		
ク 43 Metric 5. Special Wetland	S.	
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-resi Lake Plain Sand Prairies (Oak Opening Relict Wet Prairies (10) Known occurrence state/federal threate Significant migratory songbird/water fo	stricted hydrolog gs) (10) ened or endan owl habitat or us Qualitative Rat	gy (5) gered species (10) sage (10) ting (-10)
Martine C Blank communit	ies, inte	rspersion, microtopography.
1 4 9 9 9		
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		community Cover Scale Absent or comprises <0.1ha (0.2471 acres) contiguous area
Score all present using 0 to 3 scale.	0	Present and either comprises small part of wetland's
Aquatic bed	•	vegetation and is of moderate quality, or comprises a
Emergent	•	significant part but is of low quality
<u>O</u> Shrub	2	Present and either comprises significant part of wetland's
Forest	_	vegetation and is of moderate quality or comprises a small
Mudflats		part and is of high quality
Open water	3	Present and comprises significant part, or more, of wetland's
Other	3	vegetation and is of high quality
6b. horizontal (plan view) Interspersion.		, ogeta
Select only one.	Marrative De	escription of Vegetation Quality
High (5)	low	Low spp diversity and/or predominance of nonnative or
Moderately high(4)	1044	disturbance tolerant native species
Moderate (3)	mod	Native spn are dominant component of the vegetation,
Moderately low (2)	mod	although nonnative and/or disturbance tolerant native spp
1 Low (1)		can also be present, and species diversity moderate to
None (0)		moderately high, but generally w/o presence of rare
6c. Coverage of invasive plants. Refer		threatened or endangered spp
to Table 1 ORAM long form for list. Add	high	A predominance of native species, with nonnative spp
or deduct points for coverage	nign	and/or disturbance tolerant native spp absent or virtually
Extensive >75% cover (-5)		absent, and high spp diversity and often, but not always,
Moderate 25-75% cover (-3)		the presence of rare, threatened, or endangered spp
Sparse 5-25% cover (-1)	 	
Nearly absent <5% cover (0)	Mudflat and	l Open Water Class Quality
Absent (1)	0	Absent <0.1ha (0.247 acres)
6d. Microtopography.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
Score all present using 0 to 3 scale. Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
O Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
Coarse woody debits > 15cm (din)		
Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopoa	raphy Cover Scale
Amphibian preeding pools	0	Absent
	1	Present very small amounts or if more common of marginal quality
	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
	ა	and of highest quality
ges.		and or manage and

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	YES NO	If yes, Category 3.
	Species 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 (10)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (O)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative	Metric 1. Size	0	
Rating	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	20	
	Metric 4. Habitat	16	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion,	8	
	microtopography TOTAL SCORE	45	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score 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. Is quantitative rating score greater than the Category 2
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(10)	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 If the score of the wetland is located within the scoring
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	(0)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C). A wetland may be undercategorized using this method, but
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this inclined, set 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 of information for this determination should be provided.

	Fin	al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lawra Sayre
Date: 11/15/12
Affiliation: ENVIVO SCIENCE, INC.
Address: 3781 Darrow Rd, Stow OH 44224
Phone Number: (330) 688-0111
e-mail address: Wayre (a Enviroscience Inc. com
Name of Wetland: W-3
Vegetation Communit(les): PEM IPS S
HGM Class(es): RIVEVINE
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
See attached maps

Annales Les anna con resulter segenti el seres estatos de la Califa de	early transation (FIRS)
41.181245°N -80.834119°W	
Warren	
Trumbull	
LordStown	
GEO/GEALS	-
05030103	
11/15/12	
encwsed	
Continuents	
enclosed	
enclosed	
	05030103

me of Wetland: W-3	P	
etland Size (acres, hectares): 0.011 oc on other surface waters, vegetation zones, etc.		
etch: Include north arrow, relationship with other surface waters, vegetation zones, etc.		held
Comments, Narrative Discussion, Justification of Category Changes:		

Scoring Boundary Worksheet

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

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

		Circle one	- William
#	Question	YES	(NO)
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	Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
		YES	(NO)
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	
	Documented High Quality Wetland. Is the wetland on record in	YES	(NO)
3	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	
	Significant Breeding or Concentration Area. Does the wetland	YES	(NO)
4	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	ACC.
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre)	YES	(N)
5	in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) vegetation that is dominated (greater than eighty per cent areal cover)	Wetland is a Category 1 wetland	Go to Question 6
	2) an acidic pond created or excavated on miled lands that has a contestion?	Go to Question 6	100
6	The transfer of the wetland a neat-accumulating wetland that I) has no	YES	(10)
U	significant inflows or outflows, 2) supports actuophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% particularly <i>Sphagnum</i> spp., 30% particularly sphagnum s	Wetland is a Category 3 wetland	Go to Question 7
	cover of invasive species (see Table 1) is <25%?	Go to Question 7	
	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES	(N9)
7	is saturated during most of the year, primarily by a discharge of most 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	
	"Old Growth Forest." Is the wetland a forested wetland and is the	YES	(NO)
8a	forest characterized by, but not limited to, the following characteristics overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence	Wetland is a Category 3 wetland.	Go to Question 81
	of human-caused understory disturbance during the packed 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	

Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of	110	(NO)
50% or more of the cover of appendicate states of t	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
	Go to Question 9a	10
Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(40)
	Go to Question 9b	Go to Question 10
the method de budrology regill illog illeaduled debigned to	YES	
prevent erosion and the loss of aquatic plants, i.e. the weitain is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
	Go to Question 10	
Are Lake Frie water levels the wetland's primary hydrological influence,	YES	NO
i.e. the wetland is hydrologically unlessriced (no talk-draft alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These "estuarine" wetlands in the state of the properties wetlands are restricted as an extraction wetlands.	Go to Question 9d	Go to Question 10
	YES	NO
Does the wetland have a predominance of harve operative or disturbance tolerant vegetation communities, although non-native or disturbance tolerant native species can also be present?	Wetland is a Category 3 wetland	Go to Question 9e
	Go to Question 10	
Does the wetland have a predominance of non-native or disturbance	YES ·	NO
tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
	Go to Question 10	and the same of th
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 characterized by the following 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	Go to Question 11	
i	VES	(NO)
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,	Wetland should be evaluated for possible Category 3 status	Complete Quantitative Rating
	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation. Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present? Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? Lake Plain Sand Prairies (Oak Openings) Is the wetland 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	Lake Erie coastal and tributary wetfands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish? Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls? Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation. Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present? Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities? Lake Plain Sand Prairies (Oak Openings) is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can 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 guality. Relict Wet Prairies, is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and northwest Ohio (e.g. Erie, Huron, Lucas,

Table 1. Characteristi	c plant species.		0ak Opening species	wet prairie species
Invasive/exotic spp Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus. Ramunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	fen species Zygadenus elegans var. glaucus Cacalia plantaginea Carex sterilis Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre	bog species Calla palustris Carex atlantica var. capillacea Carex echinata Carex oligosperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamogrostis stricta Carex atherodes Carex buxbaumit Carex pellita Gentiana andrewsit Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatun Pycnanthemum virginianum Silphium terebinthinaceum Spartina pectinat Spartina pectinat Solidago riddell

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

Check all disturbances observed

mowing

grazing

clearcutting

selective cutting woody debris removal

toxic pollutants

shrub/sapling removal

nutrient enrichment

sedimentation

dredging

farming

herbaceous/aquatic bed removal

last revised 1 February 2001 jjm

]None or none apparent (9)

Recent or no recovery (1)

Recovered (6)

Recovering (3)

ORAM v. 5.0 Field Form Quantitative Rating		Date: 11/15/12
Site: Brunstetter w-3 1	Rater(s): L.Sayre	Date. "[15/16
43 subtotal first page		
∩ 43 Metric 5. Special W	etlands.	
max 10 pts. subtotal Check all that apply and score as indi	cated.	
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5 Lake Erie coastal/tributary Lake Plain Sand Prairies (10) Reliet Wet Prairies (10)) wetland-unrestricted hydrology (10) wetland-restricted hydrology (5) Dak Openings) (10)	
Known occurrence state/fe	deral threatened or endangered species (10) bird/water fowl habitat or usage (10)	
	Quarties 1 Qualitative Rauliu (* 19)	
1 44 Metric 6. Plant con	nmunities, interspersion, m	,
max 20 pts. subtotal 6a. Wetland Vegetation Communities	vegetation Community Cover Scale	o.1ha (0.2471 acres) contiguous area
Score all present using 0 to 3 scale.	Present and either con	nprises small part of wetland's
Aquatic bed Emergent	vegetation and is of	moderate quality, or comprises a
Shrub	significant part but is	nprises significant part of wetland's
Forest	2 Present and either con	moderate quality or comprises a small
Mudflats	nort and is of high of	uality
Open water	3 Present and comprise	s significant part, or more, of wetland's
CherOtherOther		high quality
Select only one.		O willing
High (5)	Narrative Description of Vegetatio	n Quality /or predominance of nonnative or
Moderately high(4)	low Low spp diversity and disturbance tolerant	native species
Moderate (3)	mod Native spn are domina	ant component of the vegetation,
Moderately low (2)	although nonnative	and/or disturbance tolerant native spp
Low (1) None (0)	can also be present	, and species diversity moderate to
6c. Coverage of invasive plants. R	efer moderately high, bu	at generally w/o presence of rare
to Table 1 ORAM long form for list.		ngered spp ative species, with nonnative spp
or deduct points for coverage	high A predominance of the	tolerant native spp absent or virtually
Extensive >75% cover (-	absent and high sr	op diversity and often, but not always,
Moderate 25-75% cover	the presence of rare	e, threatened, or endangered spp
Sparse 5-25% cover (-1) Nearly absent <5% cove	-(0)	
Absent (1)	Mudflat and Open water class Qu	uality
6d. Microtopography.	0 Absent <0.1ha (0.24	7 acres)
Score all present using 0 to 3 scale	1 Low 0.1 to <1ha (0.2 2 Moderate 1 to <4ha	(2.47 to 0.88 acres)
O Vegetated hummucks/tu	ssucks 2 Woderate 1 to 441a	\ or more
O Coarse woody debris >1	Solli (Gill)	y of finale
Standing dead >25cm (1	0in) dbh Is Microtopography Cover Scale	
Amphibian breeding poo	O Abcent	
	1 Present very small a	mounts or if more common
	2 Present in moderate	amounts, but not of highest amounts of highest quality
		or greater amounts
	3 Present in moderate and of highest qua	
	and or mignoot qua	

44

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	YES NO	If yes, Category 3.
	Species Question 3. High Quality Natural Wetland	YES (10)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (10)	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 (10)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (O)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative	Metric 1. Size	D	
Rating	Metric 2. Buffers and surrounding land use	7	
	Metric 3. Hydrology	9 D	
	Metric 4. Habitat	16	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	1	
	TOTAL SCORE	44	Category based on scor breakpoints Mod 2

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

	Circle one		Evaluation of Categorization Result of ORAM
Choices Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10 Did you answer "Yes" to any	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been overcategorized by the ORAM
of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	Wetland should be evaluated for possible Category 3 status	(NO)	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. Is quantitative rating score <i>greater</i> than the Category 2
Did you answer "Yes" to Narrative Rating No. 5	Wetland is categorized as a Category 1 wetland		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 If the score of the wetland is located within the scoring
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(10)	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). A wetland may be undercategorized using this method, but
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background	Wetland is assigned to category as determined by the ORAM.	still exhibit one or more superior functions, e.g. a wettarius biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic

	Fir	al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name: Lawra Si	ayre
Date:	
Affiliation: EWAVOSC	ience, Inc.
Address: 3781 D	arrow Rd, Stow OH 44224
	688-0111
	(DENVIPOSCIENCE INC. COM
	1-L
Vegetation Communit(ies):	FO
HGM Class(es): RIVEV	INC
Location of Wetland: include ma	p, address, north arrow, landmarks, distances, roads, etc.
Location of Victional	attached maps
Jte .	od i de la
·	
	•
THE STATE OF THE S	
Lat/Long or UTM Coordinate	41.1810D6°N -80.831629°W
USGS Quad Name	Warren
County	Trumbull
Township	LordStown

05030103

enclused

enclosed

Section and Subsection

Hydrologic Unit Code

Soil Survey

National Wetland Inventory Map

Ohio Wetland Inventory Map

Delineation report/map

ne of Wetland: W = tland Size (acres, hectares	: 0.002 ac. on site; are relationship with other surface waters,	ovey 0.75 ac. 114	<u> </u>
tch: Include north arrow,	elationship with other surface waters,	getation zones, etc. PLSI OENTIC	J
		•	
	a partie		
	53		
<i>x</i>			
165			
(orest	1:000	Forest	
•	1.	Love o	
1			
1			
Ì	continues off-site	,	
Oomments, Narrative Disc	ussion, Justification of Category Chang	es:	

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.

	dur haundaries	done?	not applicable
t Step 1	Steps in properly establishing scoring boundaries Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	/	
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), 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.

	Overtion	Circle one	
‡ 	Question Question or subsection of	YES	(NO)
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	Wetland should be evaluated for possible Category 3 status Go to Question 2	Go to Question 2
2	to the Welland Known to Collidar	YES	(40)
.	an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	Wetland is a Category 3 wetland.	Go to Question 3
		Go to Question 3	
3	Documented High Quality Wetland. Is the wetland on record in	YES	(NO)
3	Natural Heritage Database as a high quality wetland?	Wetland is a Category 3 wetland	Go to Question 4
		Go to Question 4	
	Significant Breeding or Concentration Area. Does the wetland	YES	(NO)
4	Significant Breeding of Collectification and State State 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	A CONT
	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre)	YES	(N)
5	in size and hydrologically isolated and either 1) complised of vegetation that is dominated (greater than eighty per cent areal cover)	Wetland is a Category 1 wetland	Go to Question 6
	2) an acidic pond created or excavated on mined lands that has little or	Go to Question 6	
6	no vegetation? Bogs. Is the wetland a peat-accumulating wetland that 1) has no	YES	(NO)
O	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	Wetland is a Category 3 wetland	Go to Question 7
	cover of invasive species (see Table 1) is <25%?	Go to Question 7	
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that	YES	(NO)
7	is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of	Wetland is a Category 3 wetland	Go to Question 8a
	invasive species listed in Table 1 is <25%?	Go to Question 8a	
8a	"Old Growth Forest." Is the wetland a forested wetland and is the	YES	NO)
υd	forest characterized by, but not limited to, the following characteristics overstory canopy trees of great age (exceeding at least 50% of a	Wetland is a Category 3 wetland.	Go to Question 8t
	of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canoples; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	Go to Question 8b	

	the standard with	YES	(NO)
· 8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17,7in) dbh?	Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
ļ		Go to Question 9a	10
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at	YES	(40)
34	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
	the method de budrology regulf from measures designed to	YES	NO
นเ	prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	Wetland should be evaluated for possible Category 3 status	Go to Question 9c
		Go to Question 10	NO
9c	Are Lake Erie water levels the wetland's primary hydrological influence,	YES	NO
30	i.e. the wetland is hydrologically unlessificed (no lattorial statement) border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These "estuarine" wetlands in wetlands estuarine wetlands, river mouth	Go to Question 9d	Go to Question 10
	wetlands, or those dominated by submersed aquatic vegetation.	YES	NO
9d	Does the wetland have a predofilitation of matter operation 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
9e	Does the wettand have a pleadification of the vector of th	Wetland should be evaluated for possible Category 3 status	Go to Question 10
		Go to Question 10	6103
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	YES	(NO)
10	Lucas, Fulton, Henry, or Wood Counties and can the Wetland be characterized by the following description: the wetland has a sandy characterized by the following matter a water table often within	Wetland is a Category 3 wetland.	Go to Question 11
	substrate with interspersed organic matter, at the several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this	Go to Question 11	and the second s
		YES	(NO)
11	Relict Wet Prairies. Is the wetland a relict wet plaine confinency dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami,	Wetland should be evaluated for possible Category 3 status Complete Quantitative	Rating
	Montgomery, Van Wert etc.).	Rating	

Table 1. Characteristi	c plant species.	bog species	Oak Opening species	wet prairie species
invasive/exotic spp Lythrum salicaria Myriophyllum spicatum Najas minor Phalaris arundinacea Phragmites australis Potamogeton crispus. Ranunculus ficaria Rhamnus frangula Typha angustifolia Typha xglauca	fen species Zygadenus elegans var. glaucus Cacalia plantaginea Carex flava Carex stricta Deschampsia caespitosa Eleocharis rostellata Eriophorum viridicarinatum Gentianopsis spp. Lobelia kalmii Parnassia glauca Potentilla fruticosa Rhamnus alnifolia Rhynchospora capillacea Salix candida Salix myricoides Salix serissima Solidago ohioensis Tofieldia glutinosa Triglochin maritimum Triglochin palustre	Calla palustris Carex atlantica var. capillacea Carex echinata Carex chinata Carex trisperma Chamaedaphne calyculata Decodon verticillatus Eriophorum virginicum Larix laricina Nemopanthus mucronatus Schechzeria palustris Sphagnum spp. Vaccinium macrocarpon Vaccinium corymbosum Vaccinium oxycoccos Woodwardia virginica Xyris difformis	Carex cryptolepis Carex lasiocarpa Carex stricta Cladium mariscoides Calamagrostis stricta Calamagrostis canadensis Quercus palustris	Calamagrostis canadensis Calamogrostis stricta Carex atherodes Carex buxbaumit Carex sartwellit Gentiana andrewsit Helianthus grosseserratus Liatris spicata Lysimachia quadriflora Lythrum alatun Pycnanthemum virginianun Silphium terebinthinaceum Sorghastrum nutan Spartina pectinat Solidago riddell

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

Site: Brunstafter W-4	Rater(s): L.Sayn	Date: 11/15/12	
Olor Ministry	0		
レレ Metric 1. Wetland A	ea (size).		
max 6 pts. subtotal Select one size class and assign score	. .		
>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20),2ha) (5 pts)		
10 to <25 acres (4 to <10.1h	ıa) (4 pts) .		
3 to <10 acres (1.2 to <4ha) 2 0.3 to <3 acres (0.12 to <1.2	⊵ha) (2pts)		
0.1 to <0.3 acres (0.04 to <0 <0.1 acres (0.04ha) (0 pts)).12ha) (1 pt)		
Metric 2. Upland bu	ffers and surrou	nding land use.	
"			
max 14 pts. subtotal 2a, <u>Calcu</u> late average buffer width, S	Select only one and assign scor	re. Do not double check.	
WIDE. Buffers average 50r	n (164ff) of filole alould wellar 25m to <50m (82 to <164ff) are	ound wetland perimeter (4)	
1 LIADDOM Buffore average	3 10m to <25m (320 10 S021U c	alouid Mctara bermiers (1)	
VERY NARROW. Buffers a	verage <10m (<32it) around w Select one or double check	and average.	
I IVEDVIOW 2nd growth of	· orner forest, plaine, savannan	i, whalle died, etc. (.)	
5 LOW, Old field (>10 years)	, shrub land, young second yit sidential fenced pasture, park,	conservation tillage, new fallow field. (3)	
HIGH. Urban, industrial, or	pen pasture, row cropping, min	ing, construction. (1)	
Matric 2 Hydrology			
		3b. Connectivity. Score all that apply.	
max 30 pts. subtotal 3a. Sources of Water. Score all that High pH groundwater (5)	apply.	100 year floodplain (1)	/ 4 \
Other groundwater (3)		Between stream/lake and other human use (Part of wetland/upland (e.g. forest), complex	را. (1)
Precipitation (1) Seasonal/Intermittent surfa	ce water (3)	Part of riparian or upland corridor (1)	
Perennial surface water (la	ke or stream) (5)	3d. Duration inundation/saturation. Score one or dbl cf	песк 4)
3c. Maximum water depth. Select of \$\ >0.7 (27.6in) (3)	nly one and assign score.	Regularly inundated/saturated (3)	•
0.4 to 0.7m (15.7 to 27.6in) (2)	Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
4 <0.4m (<15.7in) (1) 3e, Modifications to natural hydrolog	ic regime. Score one or double		,
None or none apparent (12		erved	
Recovered (7)	ditch	point source (nonstormwater) filling/grading	
Recovering (3) Recent or no recovery (1)	tile dike	road bed/RR track	
	weir	dredging other	
	stormwater input		
Metric 4. Habitat A	Iteration and Dev	/elopment.	•
max 20 pts. subtotal 4a. Substrate disturbance. Score of	se or double check and averag	e.	
max 20 pts. subtotal 4a. Substrate disturbance. Score of None or none apparent (4)		
Recovered (3) Recovering (2)			
Recent or no recovery (1)			
4b, Habitat development. Select or Excellent (7)	ly one and assign score.		
Very good (6)			
Good (5) Moderately good (4)			
3 Fair (3)			
Poor to fair (2)			
Poor (1). 4c. Habitat alteration. Score one or	double check and average.		
None or none apparent (9) Check all disturbances obs	servedshrub/sapling removal	
Recovered (6) Recovering (3)	mowing grazing	herbaceous/aquatic bed removal	
Recovering (3) Recent or no recovery (1)	clearcutting	sedimentation dredging	
	selective cutting woody debris remova	al farming	
171	toxic pollutants	nutrient enrichment	
subtotal this page			
last revised 1 February 2001 jjm			

DRAM v. 5.0 Field F	Form Quantitative Rating	Ca	Mre Date: 11/15/12
Site: BYUN	Stater(s): L·Sa	Date. Tistia
Subtotal first	page		
0 47	Metric 5. Special Wetland	101	
max 10 pls. subtotal	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-un Lake Erie coastal/tributary wetland-res Lake Plain Sand Prairies (Oak Openin Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water fo	stricted hydrolog ngs) (10) tened or endang owl habitat or us Qualitative Rat	gered species (10) sage (10) ing (-10)
3 5D	Metric 6. Plant community		rspersion, microtopography.
max 20 pts. subtota		Vegetation C	ommunity Cover Scale
max 20 pis. Subtou	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's
	Aquatic bed	1	vegetation and is of moderate quality, or comprises a
	Emergent		cignificant part but is of low quality
	Shrub		Present and either comprises significant part of wetland's
	Forest	2	vegetation and is of moderate quality or comprises a small
	Mudflats		part and is of high quality
	Open water	3	Present and comprises significant part, or more, of wetland's
	Other6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
	Select only one.		Lucia de la companya
	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, although nonnative and/or disturbance tolerant native spp
	Low (1)		can also be present, and species diversity moderate to
	O None (0)		moderately high, but generally w/o presence of rare
	6c. Coverage of invasive plants. Refer		threatened or endangered spp
•	to Table 1 ORAM long form for list. Add	high	A predominance of native species, with nonnative spp
	or deduct points for coverage	rngri	and/or disturbance tolerant native spp absent or virtually
	Extensive >75% cover (-5) 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) Low 0.1 to <1ha (0.247 to 2.47 acres)
•	Score all present using 0 to 3 scale.	1	Moderate 1 to <4ha (2.47 to 9.88 acres)
	O Vegetated hummucks/tussucks	2	High 4ha (9.88 acres) or more
	Coarse woody debris >15cm (6in)	3	High 41a (9.00 acres) of more
	O Standing dead >25cm (10in) dbh	Microfopog	raphy Cover Scale
	Amphibian breeding pools	Microtopog	Absent
•	•	1	Present very small amounts or if more common of marginal quality
		2	Present in moderate amounts, but not of highest
		2	quality or in small amounts of highest quality
		3	Present in moderate or greater amounts
		3	and of highest quality
			- A Company of the Co

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	YES (NO)	If yes, Category 3.
	Species Question 3. High Quality Natural Wetland	YES (10)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (10)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (10)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (10)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	2	
	Metric 2. Buffers and surrounding land use	9	
	Metric 3. Hydrology	90	
	Metric 4. Habitat	10	
	Metric 5. Special Wetland Communities	D	
	Metric 6. Plant communities, interspersion, microtopography	3	
	TOTAL SCORE	50	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Chalcon	Circle one		Evaluation of Categorization Result of ORAM
Choices Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO NO	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<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	(EO)	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. Is quantitative rating score <i>greater</i> than the Category 2
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(10)	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 If the score of the wetland is located within the scoring
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	range for a 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	(6)	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		A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

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

End of Ohio Rapid Assessment Method for Wetlands.

Appendix E:

Qualitative Habitat Evaluation Index (QHEI) Forms

On	

Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score:

		2000	n n	200	
		100	28	,:	
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	~	- ACRES			_

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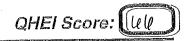
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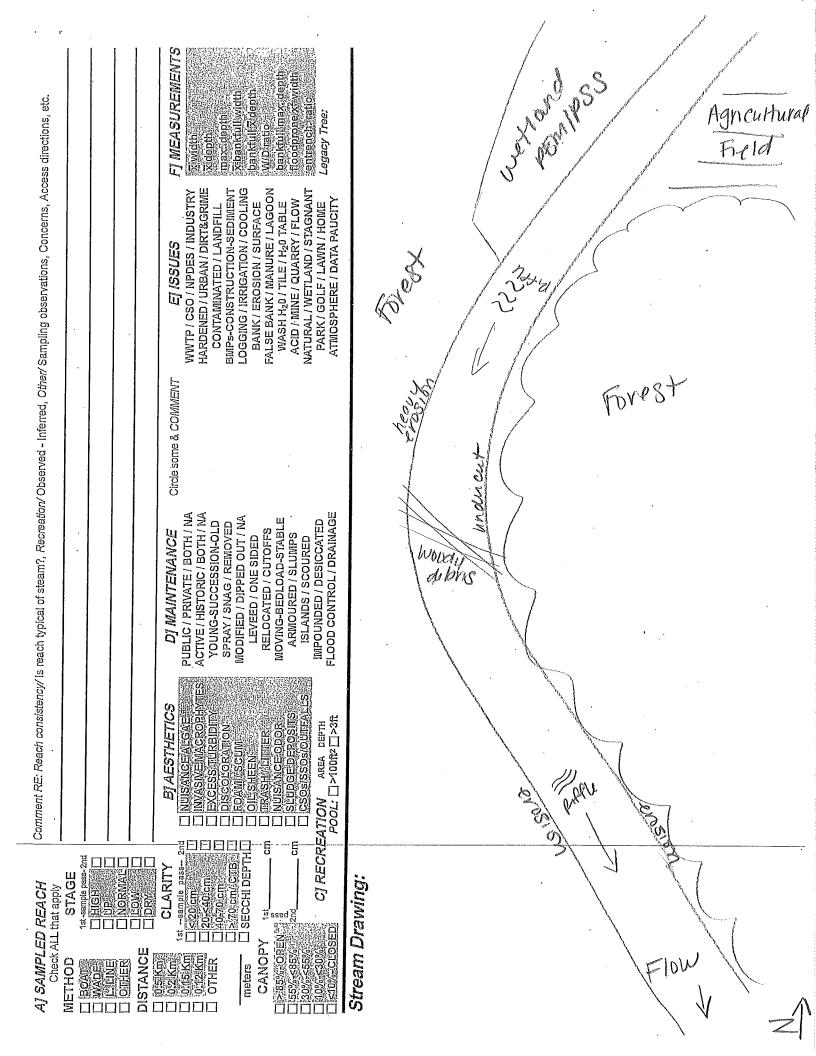
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Qualitative Habitat Evaluation Index and Use Assessment Field Sheet



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Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

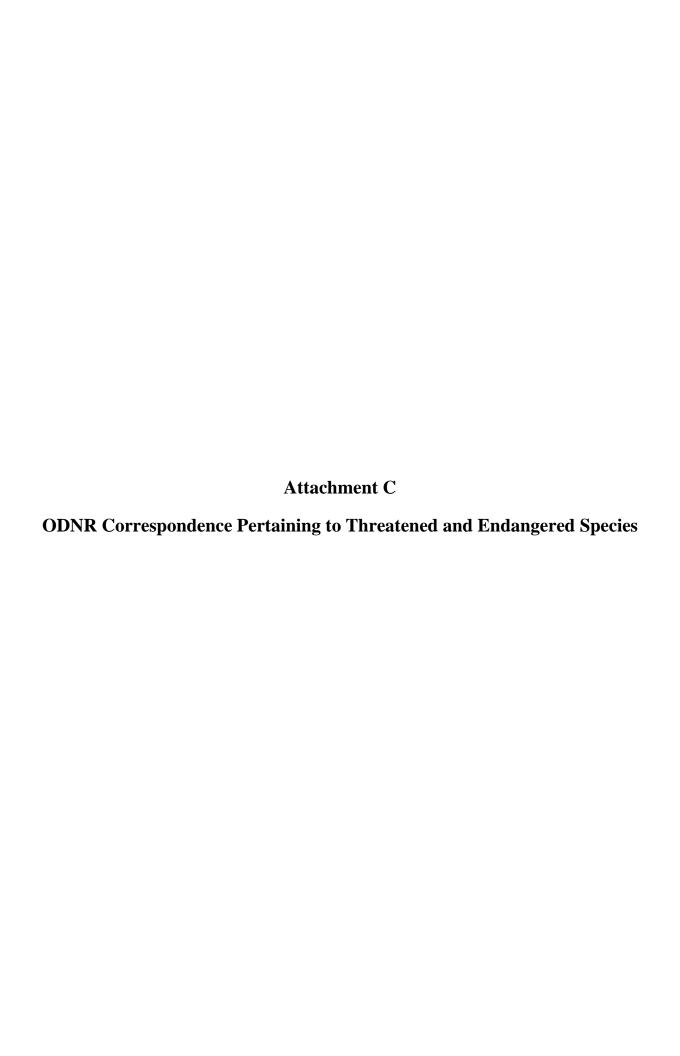
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Dominion Resources Services, Inc. 320 Springside Dr., Ste. 320, Akton, OH 44333 Web Address: www.dom.com



December 14, 2012

BY EMAIL

John Kessler, P.E. Ohio Division of Natural Resources Office of Real Estate 2045 Morse Road, Building E-2 Columbus, Ohio 43229-6693

RE: The East Ohio Gas Company

Ohio Endangered Species Consultation

Brunstetter Connector

Dear Mr. Kessler:

Please review the following information regarding the East Ohio Gas Company (EOG) Brunstetter Connector project. To assist with your review of the project area, project maps and photographs are enclosed.

Project Purpose, Description, and Location

EOG proposes to install approximately 2,500 feet of new 12-inch natural gas pipeline to connect the existing EOG Brunstetter Station to Line 264. The Brunstetter Connector project is located directly west of the intersection of Brunstetter Road and Highland Avenue in the City of Lordstown, Trumbull County, Ohio. Construction will be limited to a right-of-way (ROW) of 60 feet wide along the proposed pipeline. The Brunstetter Connector project will require minor tree and shrub clearing to complete the project and will cross two (2) streams and four (4) wetlands. All proposed activities involved will follow those authorized in the U.S. Army Corps of Engineers 2012 Nationwide Permits for a NWP #12 (Utility Line Activities). After all work is completed, grades will be returned to pre-construction contours.

The center latitude and longitude coordinates for the project area are 41.181032°N and -80.833727°W.

Site Description

An ecological survey of the project area was conducted in November 2012. The site map (Attachment A; Figure 1) from the survey and a topographic map (Attachment A; Figure 2) of the project area are included. Additionally, photographs of the site are enclosed in Attachment B.

Ohio Endangered Species Consultation Brunstetter Connector Page 2 of 3

The upland portion of the project area exists as agricultural field, maintained lawn, new field, and forest. Typical vegetation in the agricultural field includes remnant corn (Zea mays), Kentucky bluegrass (Poa pratensis), dandelion (Taraxacum officinale), and ground ivy (Glechoma hederacea) in the herbaceous layer. The maintained lawn includes Kentucky bluegrass, common dandelion, white clover (Trifolium repens), narrow plantain (Plantago lanceolata), and ground ivy in the herbaceous stratum. Typical vegetation in the new field includes multiflora rose (Rosa multiflora), blackberry (Rubus allegheniensis), and glossy buckthorn (Rhamnus frangula) in the shrub layer and orchard grass (Dactylis glomorata) and late goldenrod (Solidago gigantea) in the herbaceous layer. Typical vegetation in the forest includes sugar maple (Acer saccharum), pin oak (Quercus palustris), green ash (Fraxinus pennsylvanica), and Eastern white pine (Pinus strobus) in the tree layer.

Four (4) wetlands (W-1, W-2, W-3, and W-4) exist within the project area. W-1, W-2 and W-3 consist of a mix of palustrine emergent and palustrine scrub/shrub (PEM/PSS) vegetation. Typical vegetation found in the PEM/PSS wetlands includes reed canary grass (*Phalaris arundinacea*), stinging nettle (*Urtica dioica*), and fowl manna grass (*Glyceria striata*) in the herbaceous stratum and glossy buckthorn, Northern arrowwood (*Viburnum recognitum*), and silky dogwood (*Cornus amomum*) in the scrub/shrub layer. W-4 is dominated by palustrine forested (PFO) vegetation. Typical vegetation found in the PFO wetland includes American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), glossy buckthorn, Northern arrowwood, and wood reed grass (*Cinna arundinacea*). Temporary wetland impacts will be limited to a 50-foot construction width. All impacts to wetlands will be temporary and impacted areas will be restored to pre-construction contours.

Two (2) streams (S-1 and S-2) exist within the project area and are shown on Figure 1 (Attachment A). S-1 is classified as a perennial stream and is flowing north offsite and eventually into S-2. S-2 crosses the project area twice and is also classified as a perennial stream. S-2 is flowing north and east offsite into Mud Creek, a tributary of the Mahoning River. Temporary stream impacts will be limited to a 50-foot construction width. All impacts to streams will be temporary and impacted areas will be restored to preconstruction contours.

The project area was reviewed for trees that could provide habitat for the federally endangered Indiana bat. Ten (10) potential roosting trees (PRTs) were identified within or near the project area. The Indiana bat may use these trees as summer roosting habitat between April 1 and September 30. Presently, seven (7) of the PRTs may need to be cut to safely conduct the work. If clearing is necessary, EOG proposes to cut PRTs between October 1 and March 31. The locations of these trees are indicated on Attachment A; Figure 1. Photographs of representative trees are included in Attachment B.

Request for Finding

Considering the information above, EOG is requesting a finding from ODNR regarding any adverse effect to any state-listed species and natural areas with ecological and/or

Ohio Endangered Species Consultation Brunstetter Connector Page 3 of 3

geological significance. This project is anticipated to begin in February 2013. Therefore, a timely response is respectfully requested to ensure compliance relative to state-listed endangered species prior to initiating activities.

An email response would be greatly appreciated. Please send the email to Tara Miletti at Tara.E.Miletti@dom.com. If you have any questions or need additional information, please contact Tara Miletti at (330) 664-2579.

Sincerely,

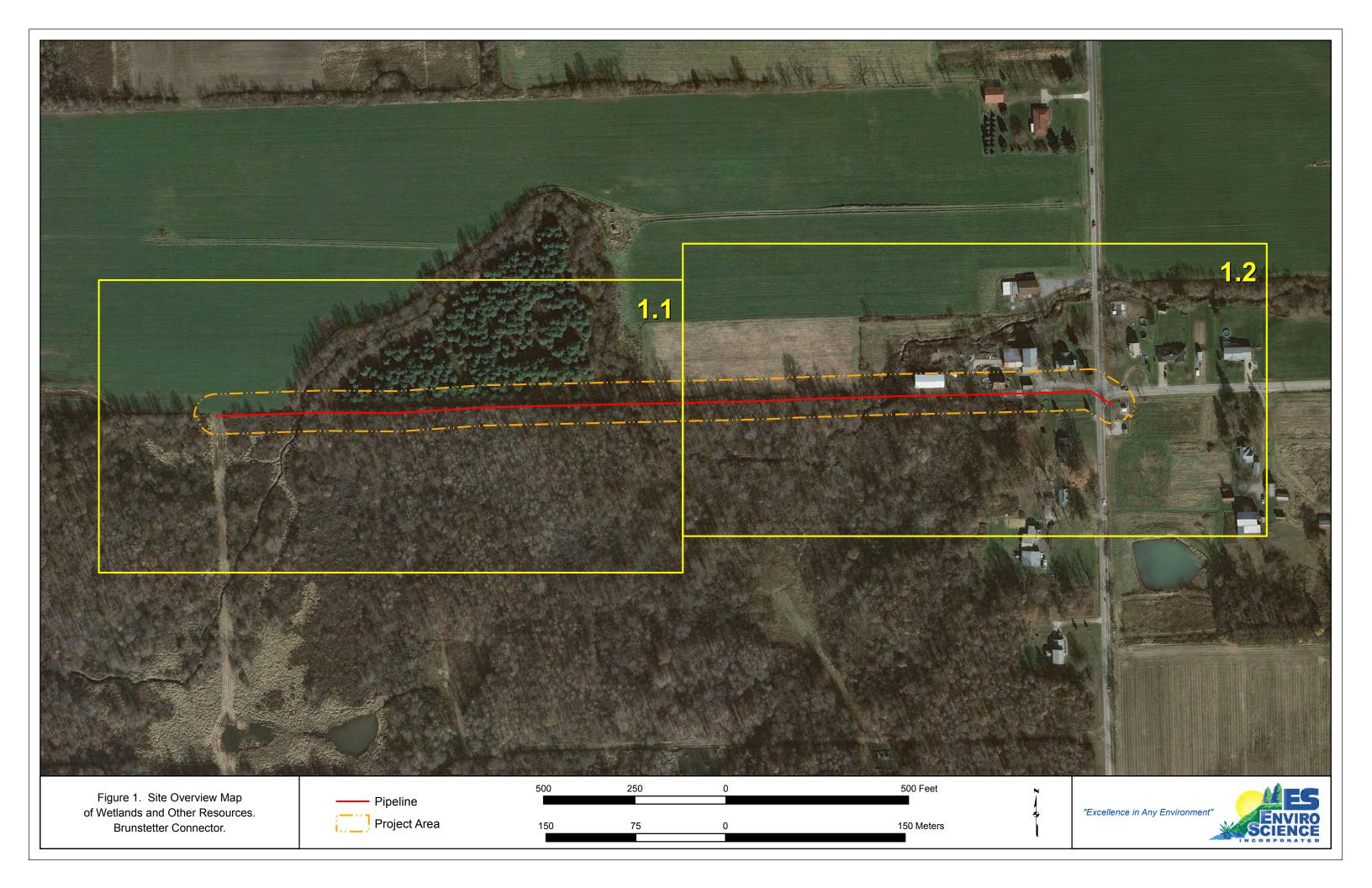
Lisa C. Moerner

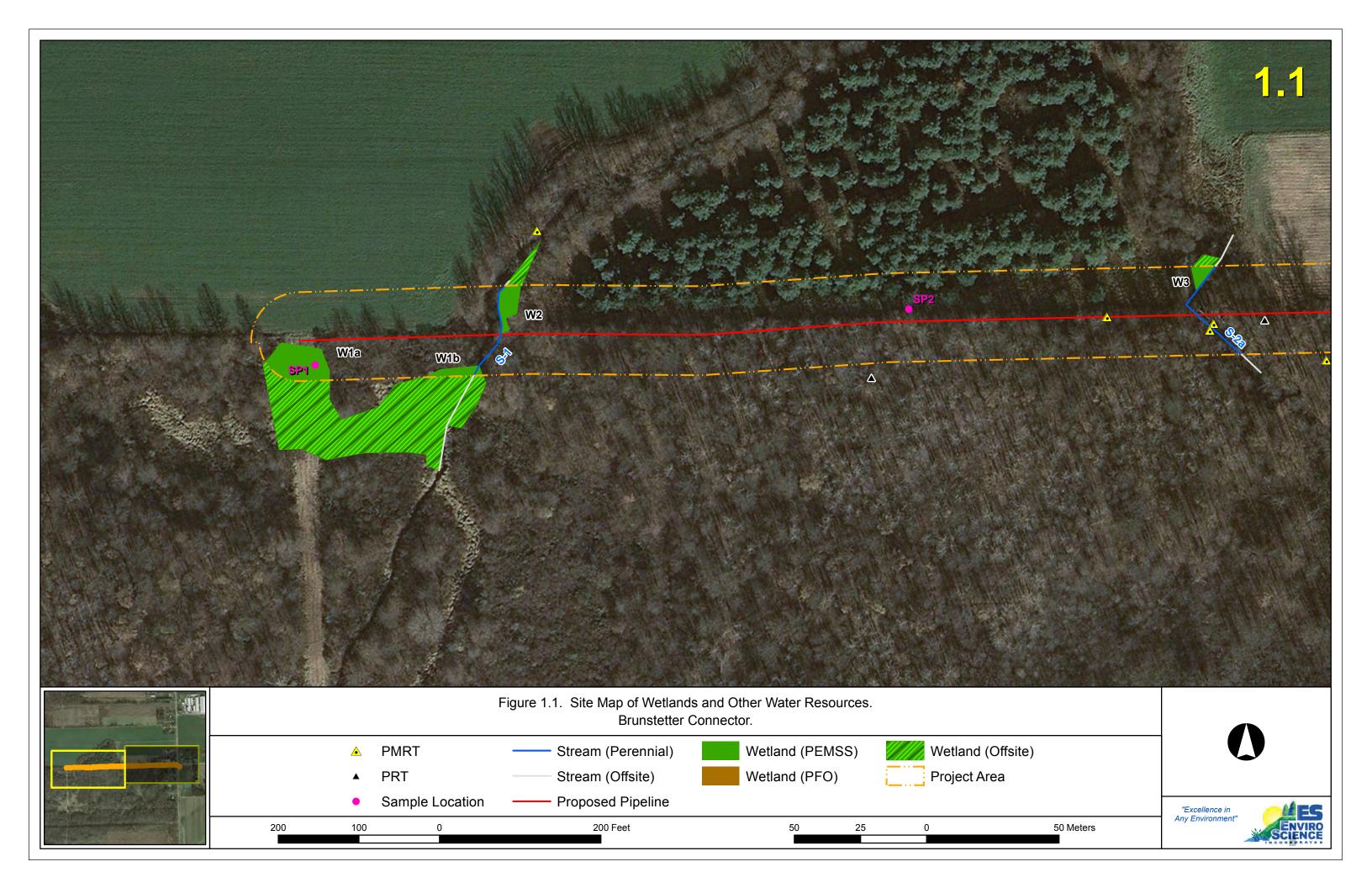
Director, Environmental Sustainability and Gas Environmental Services

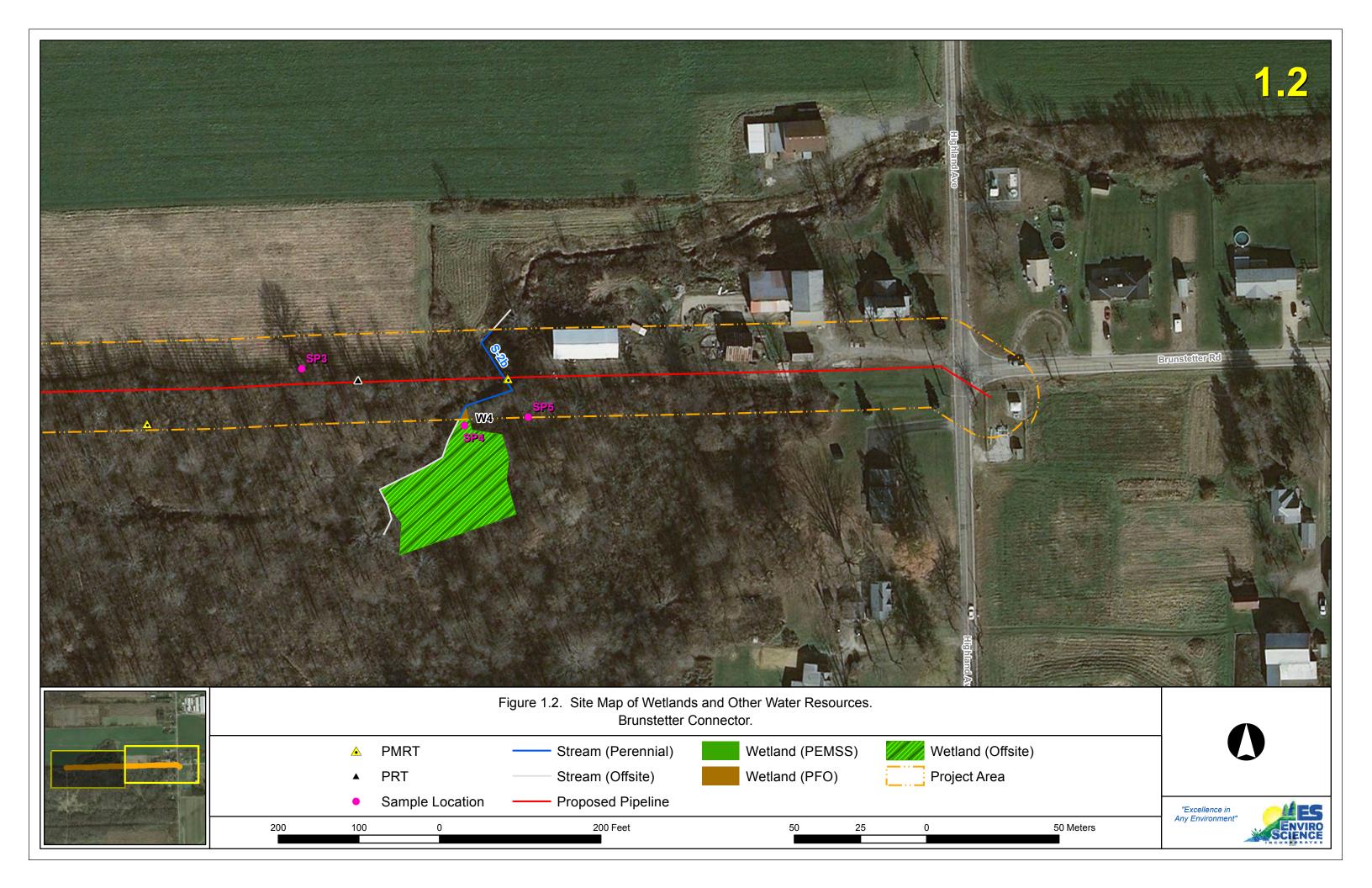
Enclosures

cc: Tara Miletti

Attachment A (Maps)







Attachment B (Photographs)



Photo 1. Typical agricultural field within the project area.



Photo 2. Typical new field within the project area.



Photo 3. Typical forest within the project area.



Photo 4. Typical palustrine emergent and palustrine scrub/shrub wetland within the project area.



Photo 5. Typical palustrine forested wetland within the project area.



Photo 6. Typical perennial stream within the project area.



Photo 7. Typical potential roost tree within the project area.



Photo 8. Typical potential roost tree within the project area.

Attachment D

Preliminary Jurisdictional Determination (JD) Form and Aquatic Resource Table

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

- A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD):
- B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Mike Reed, Director, Gas Operations The East Ohio Gas Company 320 Springside Drive, Suite 320 Akron, Ohio 44333

- C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
- D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: (USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: Ohio County/parish/borough: Trumbull

City: Lordstown

Center coordinates of site (lat/long in degree decimal format):

Lat. 41.181032° N, Long. -80.833727° W

Universal Transverse Mercator: 17 Easting (x) N Northing (y)

Name of nearest waterbody: Mahoning River

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 450 linear feet: 15, 20 width (ft) and/or 0.192 acres.

Cowardin Class: Riverine Stream Flow: Perennial Wetlands: 0.119 acres.

Cowardin Class: Forested and Emergent/Scrub/Shrub

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: N/A Non-Tidal: N/A

E.	REVIEW	PERFORMED	FOR SITE	EVALUATION	(CHECK ALL THAT A	APPLY)
		a man and the second man and the			A CONTRACTOR OF THE PARTY OF TH	

Office (Desk) Determination.	Date:
Field Determination.	Date(s):

- 1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
- 2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

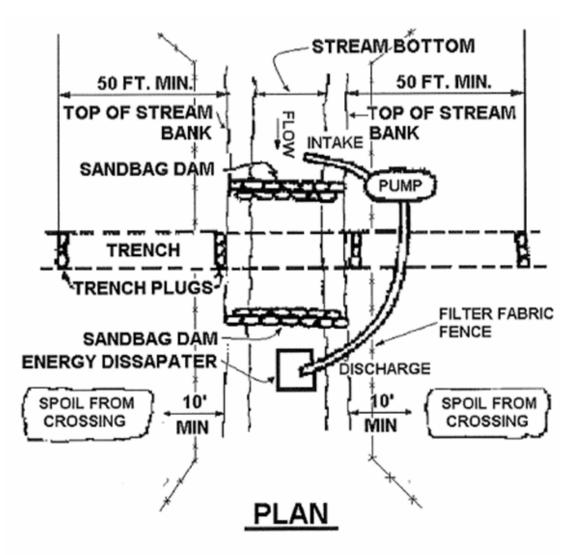
	d be included in ca	for preliminary JD (check all that apply - se file and, where checked and requested,
appropriately referen		
☐ Maps, plans, plots	or plat submitted	by or on behalf of the applicant/consultant:
Office concurs	with data sheets/c	or on behalf of the applicant/consultant. delineation report. sheets/delineation report.
Data sheets prepare	ared by the Corps:	
Corps navigable	vaters' study:	
U.S. Geological S	urvey Hydrologic A	Atlas:
USGS NHD da		
	2 digit HUC maps.	
U.S. Geological S	urvey map(s). Cite	scale & quad name:
USDA Natural Re	sources Conserva	tion Service Soil Survey. Citation:
National wetlands	inventory map(s).	Cite name:
State/Local wetlan	nd inventory map(s	s): .
☐ FEMA/FIRM map	s: .	
☐ 100-year Floodpla	ain Elevation is:	(National Geodetic Vertical Datum of 1929)
☐ Photographs:	☐ Aerial (Name	e & Date):
	Other (Name	e & Date):
Previous determin	nation(s). File no. a	and date of response letter:
Other information	(please specify):	
	A A	
		orded on this form has not necessarily
determinations.	rps and should n	ot be relied upon for later jurisdictional
determinations.		
		Michael Color 12/10/12
Signature and date of		Signature and date of
Regulatory Project Mana (REQUIRED)	iger	person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

Project Location Information Table Brunstetter Connector

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area (acres or linear feet)	Class of aquatic resource
В	41.181003	-80.838188	ממשאיות	0.066 ac.	
p	41.180963	-80.837474	PEM/PSS	0.015 ac.	non-section 10 – wetland
W-2	41.181189	-80.837241	PEM/PSS	0.025 ac.	non-section 10 - wetland
W-3	41.181245	-80.834119	PEM/PSS	0.011 ac.	non-section 10 - wetland
W-4	41.181006	-80.831629	PFO	0.002 ac.	non-section 10 - wetland
S-1	41.181084	-80.837279	R2	125 lf, 0.043 ac.	non-section 10 - non-wetland
g	41.181112	-80.834144	ç	153 If, 0.070 ac.	
þ	41.181090	-80.831416	2	172 If, 0.079 ac.	non-section 10 - non-wetland

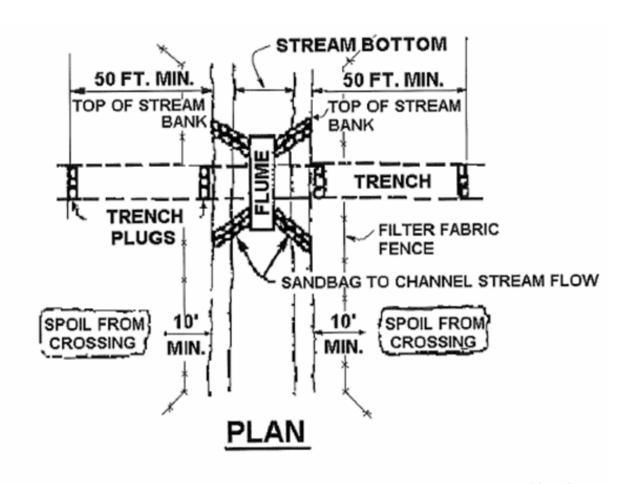
Attachment E Typical Construction Drawings

TYPICAL STREAM CROSSING WITH PUMPED BYPASS



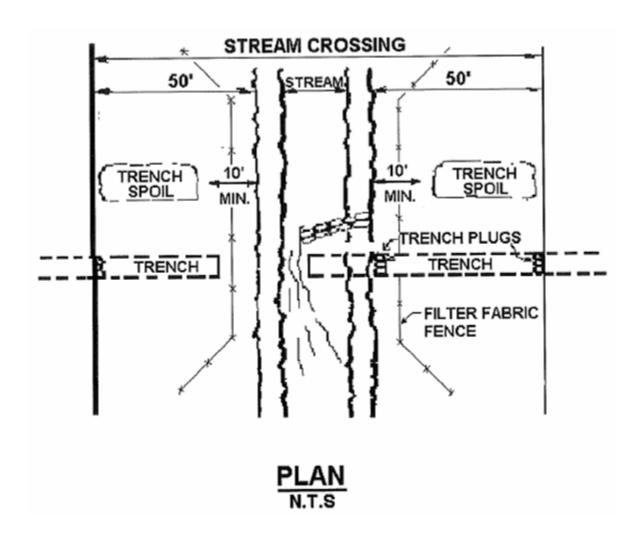
Note: A secondary dam may be needed to completely dry the streambed. A sump pump pumping behind the primary dam can usually handle this task.

TYPICAL FLUMED STREAM CROSSING

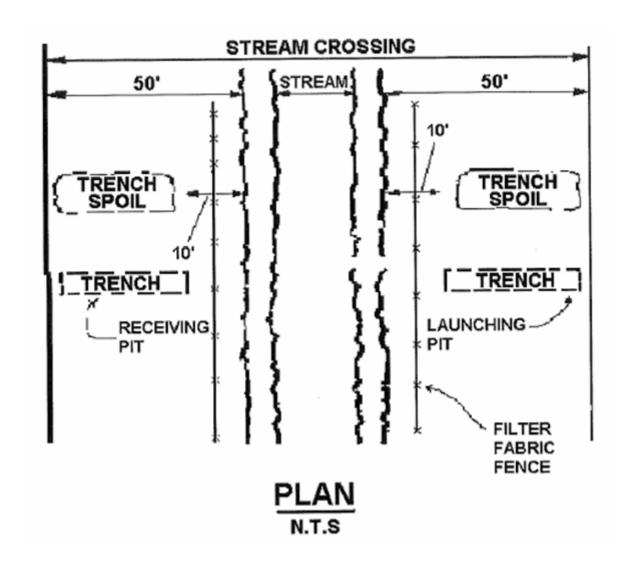


Note: Scour prevention at the downstream end of the flume pipe should be considered.

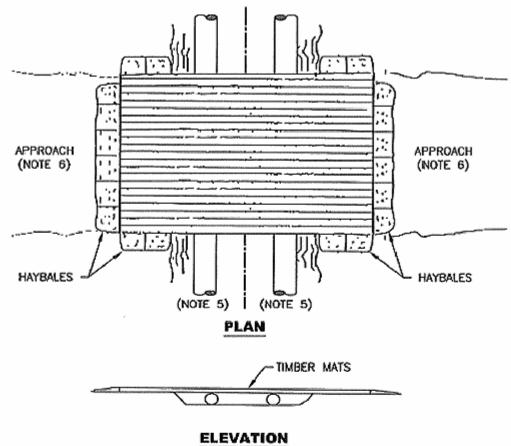
TYPICAL DIVERSION BARRIER STREAM CROSSING



TYPICAL BORED STREAM CROSSING



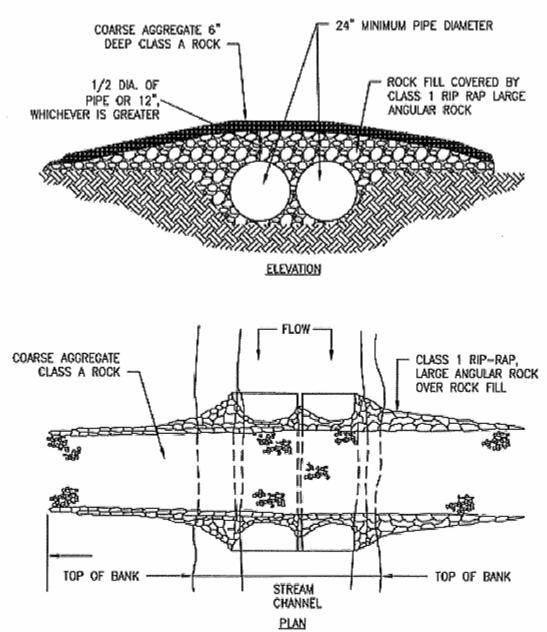
TYPICAL TIMBER MAT BRIDGE FOR STREAM CROSSINGS



NOTES:

- 1. THIS TYPE OF BRIDGE IS GENERALLY USED FOR SMALL STREAM CROSSINGS LESS THAN 20 FEET IN WIDTH IN COMBINATION WITH A PROPER STREAM BANK CONFIGURATION.
- 2. BRIDGE WILL BE TEMPORARILY REMOVED IF HIGH WATER RENDERS IT UNSAFE FOR CROSSING.
- 3. BRIDGE TO REMAIN IN PLACE UNTIL THE COMPLETION OF FINAL RESTORATION.
- 4. FILTER SOCKS ARE RECOMMENDED IN LIEU OF STRAW BALES, SAND BAGS, AND SILT FENCE. REMOVE DURING USE: REPLACE AT NIGHT AND WHEN CROSSING IS NOT BEING USED.
- 5. CULVERT PIPES MAY BE UTILIZED IF ADDITIONAL SUPPORT IS REQUIRED.
- 6. RAMP APPROACHES CAN BE EITHER GRADED OR DUG INTO GROUND IF NECESSARY, STONE MAY BE USED ON APPROACHES.
- 7. MAINTAIN PADS TO PREVENT SOIL FROM ENTERING STREAM.

TYPICAL FLUMED EQUIPMENT CROSSING

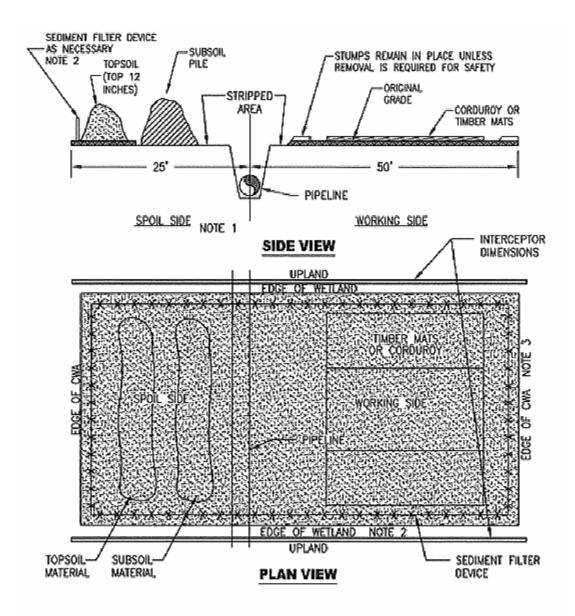


GENERAL NOTES:

- 1. NOT TO SCALE
- THIS TYPE OF CROSSING CAN BE INSTALLED IN BOTH WET OR DRY WEATHER STREAM CONDITIONS WHERE THE DRAINAGE AREA EXCEEDS 10 ACRES.
- A CULVERTED CROSSING MAY NOT BE APPROVED IN HIGH FISHERY VALUE STREAMS.

FLUMED EQUIPMENT CROSSING

TYPICAL CONVENTIONAL WETLAND CROSSING



NOTES:

- 1: IN WETLAND AREAS WHICH CONTAIN NO STANDING WATER OR SATURATED SOILS, TOPSOIL (TOP 12 INCHES) AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY WITHIN THE WETLAND CWA. TOPSOIL SHOULD BE DISTINGUISHED FROM SUBSOIL BY A COMMUNICATING DEVICE (FLAGGING, RIBBON, OR OTHER EFFECTIVE DEVICE).
- 2: A SEDIMENT FILTER DEVICE WILL BE PLACED ACROSS THE CWA AT THE WETLAND'S EDGE.
- 3: A SEDIMENT FILTER DEVICE WILL BE PLACED AT THE EDGE OF THE CWA AND AROUND TOPSOIL AND SUBSOIL PILES AS NECESSARY.

Attachment F Phase I Cultural Resource Study

PHASE I CULTURAL RESOURCES SURVEY FOR THE BRUNSTETTER CONNECTOR IN WARREN TOWNSHIP, TRUMBULL COUNTY, OHIO

Lead Agency:

U.S. Army Corps of Engineers

Submitted to:

The East Ohio Gas Company 320 Springside Drive, Suite 320 Akron, Ohio 44333

Prepared by:

Norman A. Haywood, M.A., R.P.A. Archaeological Principal Investigator

December 2012



This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

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in

Case No(s). 13-0203-GA-BNR

Summary: Correspondence Transmitting for Filing Staff Requested Documents - Part 5 electronically filed by Teresa Orahood on behalf of Dominion East Ohio Gas