



Photo Location 9. View of Wetland 4. Photograph taken facing north.



Photo Location 9. View of Wetland 4. Photograph taken facing west.





Photo Location 10. View of Stream 2. Photograph taken facing upstream/southwest.



Photo Location 10. View of Stream 2. Photograph taken facing downstream/northeast.





Photo Location 11. View of Stream 1 (Hamley Run). Photograph taken facing upstream/west.



Photo Location 11. View of Stream 1 (Hamley Run). Photograph taken facing downstream/east.





Photo Location 12. Representative view of upland drainage feature. Photograph taken facing west.

Habitat Photographs







Photo Location 1. Representative view of old field habitat. Photograph taken facing south.



Photo Location 2. Representative view of industrial habitat. Photograph taken facing southeast.





Photo Location 3. Representative view of mixed early successional/second growth deciduous forest habitat. Photograph taken facing west.



Photo Location 4. Representative view of potential bat roost tree. Photograph taken facing north.

LEMASTER-LICK 138 KV TRANSMISSION LINE RELOCATION PROJECT, ATHENS COUNTY, OHIO

Appendix D Data Forms

D.1 WETLAND DETERMINATION DATA FORMS





Are Vegetation	American E Aaron Kwol FitchvillE si 4% drologic cond , Soil , Soil , Soil , Soil FINDINGS getation Pres	It loam, 0 to 3 perce Latitude: Iitions on the site ty or Hydrology □ sig or Hydrology □ nat sent?	ent slopes 39.38321744510 pical for this this this this this this this this	Investi Loc Loc time of year	gator #2: cal Relief: ongitude: ear? (If no	: Jody Nic N: Concav : -82.180 ; explain in re	IWI/WWI Classification: e 24529	Datum: ☑ Yes □ nces present? □ No Hydric Soils	NAD83 No Present?	Date: County: State: Wetland ID: Sample Point: Community ID: Section: Township: Range:	PEM 1 12N 15W Dir: ✓ Yes □ No
Primary:	A1 - Surface A2 - High Wa A3 - Saturatio B1 - Water M B2 - Sedimer B3 - Drift Dep B4 - Algal Ma B5 - Iron Dep B7 - Inundatio	iter Table on arks ot Deposits oosits it or Crust		ere not pr	B9 - Wate B13 - Aqu B14 - Tru C1 - Hydi C3 - Oxid C4 - Pres C6 - Recc C7 - Thin	sence of Re	a Plants de Odor espheres on Living Roots educed Iron eduction in Tilled Soils face		Secondary:	B6 - Surface Sc B8 - Sparsely Ve B10 - Drainage B16 - Moss Trir C2 - Dry Seaso C8 - Crayfish B C9 - Saturation	egetated Concave Surface Patterns In Lines In Water Table In Water Table In Waser In
Field Observate Surface Water Water Table Pr Saturation Pres Describe Record Remarks:	Present? esent? ent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No eam gauge, monitori	Depth: Depth: Depth: ng well, aerial		(in.) (in.) (in.) orevious i	nspection	s), if available:	Wetland Hyd	drology Pr	resent? ☑	Yes □ No
SOILS Map Unit Name Taxonomy (Sub	group):	FitchvillE silt loam,	•	•				•		t poorly draine	d
		the depth needed to document the inc			rs.) (Type: C=Co	oncentration, D=[Depletion, RM=Reduced Matrix, CS=Covered/		ation: PL=Pore Lining	g, M=Matrix)	Taratrana
Тор	Bottom			<u>Matrix</u>	T 0/			Mottles	-	T	Texture
Depth	Depth	Horizon	Color (N		%		Color (Moist)	%	Type	Location	(e.g. clay, sand, loam)
0	10	1	10YR	4/2	90	10YR	6/8	10	С	M	silt loam
-											
□ A1- Histosol □ A2 - Histic Epip □ A3 - Black Histi □ A4 - Hydrogen S □ A5 - Stratified L □ A10 - 2 cm Muc □ A11 - Depleted □ A12 - Thick Dar	edon c Sulfide ayers k (LRR N) Below Dark Suk k Surface k Mineral (LRR I		ere if indicato S5 - Sandy Re S6 - Stripped I S7 - Dark Surf S8 - Polyvalue S9 - Thin Dark F2 - Loamy GI F3 - Depleted F6 - Redox Da F8 - Redox De	edox Matrix face Below Da Surface (leyed Matr Matirx ark Surface Dark Surface	ark Surface MLRA 147, 148 Tix e ace	→ □	F12 - Iron-Manganes F13 - Umbric Surface F19 - Piedmont Flood F21 - Red Parent Ma	e (MLRA 122, 136) dplain Soils (MLRA aterial (MLRA 127, 147	7) [A10 - 2cm M A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	r Problematic Soils 1 fluck (MLRA 147) Prairie Redox (MLRA 147, 148) It Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
□ S4 - Sandy Gley		D I		.	4.0"			11 11 0 11	D		\/ \\
•	yed Matrix Type:	Rock		Depth:	10"			Hydric Soil	Present?	✓	Yes No



Project/Site:	Lemaster-Lick 138 kV Transmission Line	e Relocation	Project		Wetland ID: Wetland 1 Sample Point: SP-1
_					
VEGETATION	(Species identified in all uppercase are non-nation	ve species.)			
Tree Stratum (Plo	ot size: 30 ft radius)				
	Species Name	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
3.					·
4.					Total Number of Dominant Species Across All Strata: 1 (B)
5.					(2)
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
7.					(A/B)
					Prevalence Index Worksheet
8.	_ 				
9.					Total % Cover of: Multiply by:
10.					OBL spp. 80
	Total Cove	r = 0			FACW spp. $\frac{30}{100}$ x 2 = $\frac{60}{100}$
					FAC spp. $0 x 3 = 0$
Sapling/Shrub Stra	atum (Plot size: 15 ft radius)				FACU spp. $0 x 4 = 0$
1.					UPL spp. $0 x 5 = 0$
2.					
3.					Total 110 (A) 140 (B)
4.					
5.					Prevalence Index = B/A = 1.273
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes No Rapid Test for Hydrophytic Vegetation
10.					Yes No Dominance Test is > 50%
	Total Cove	r = 0			Yes No Prevalence Index is ≤ 3.0 *
					✓ ⊔ Ves No Morphological Adaptations (Explain) *
Herb Stratum (Plo	ot size: 5 ft radius)				Yes No Problem Hydrophytic Vegetation (Explain) *
1.	Typha X glauca	70	Υ	OBL	
2.	Phalaris arundinacea	20	N	FACW	□ * Inc
			N	OBL	present, unless disturbed or problematic.
3.	Angelica atropurpurea	5			Definitions of Vegetation Strate.
4.	Rosa palustris	5	N	FACW	Definitions of Vegetation Strata:
5.	Solidago gigantea	5	N	FACW	<u>_</u>
6	Scirpus atrovirens	5	N	OBL	Tree - Woody plants 3 in. (7.6cm) or more in diameter at
7.					breast height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.					ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size,
13.					and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cove	r = 110			
	Total Gove	. – 110			
Woody Vina Strati	um (Plot size: 30 ft radius)				
1.	um (Plot size: 30 it radius)				
2.					
					Hydrophytic Vocatation Dropont V N-
3.					Hydrophytic Vegetation Present Yes No
4.					
5.					
	Total Cove	<u>r = 0</u>			
Remarks:					
Additional Ren	marks:				



Are Vegetation	American E Aaron Kwol Fitchville si 4% drologic cond , Soil	It loam, 0 to 3 perce Latitude: litions on the site ty or Hydrology □ sig or Hydrology □ nat sent?	ent slops 39.38319645410 pical for this inificantly dist	Investi Loc Loc time of yeurbed?	gator #2: al Relief: ongitude: ear? (If no,	Jody Nio N Convex -82.180 explain in ro	IWI/WWI Classification	Datum: ☑ Yes □ ances present? □ No Hydric Soils	Present?	Date: County: State: Wetland ID: Sample Point: Community ID: Section: Township: Range:	Upland 1 12N 15W Dir: ☐ Yes ☑ No
HYDROLOGY Wetland Hydro Primary:	A1 - Surface A2 - High Wa A3 - Saturatio B1 - Water M B2 - Sedimer B3 - Drift Dep B4 - Algal Ma B5 - Iron Dep B7 - Inundatio	iter Table on arks ot Deposits oosits it or Crust			B9 - Wate B13 - Aqu B14 - True C1 - Hydre C3 - Oxidi C4 - Prese	latic Fauna e Aquatic ogen Sulfi ized Rhizo ence of Ro ent Iron Re Muck Suri	e Plants de Odor espheres on Living Roots educed Iron eduction in Tilled Soils face		Secondary:	B6 - Surface So B8 - Sparsely Ve B10 - Drainage B16 - Moss Trin C2 - Dry Season C8 - Crayfish Bu C9 - Saturation	egetated Concave Surface Patterns In Lines In Water Table Incomparison Aerial Imagery Stressed Plants It Position Juitard Juraphic Relief
Surface Water Water Table Pr Saturation Pres Describe Record	Present? esent? sent?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No eam gauge, monitori	Depth: Depth: Depth: ng well, aerial		(in.) (in.) (in.) previous in	nspection	s), if available:	Wetland Hyd	drology Pr	esent? 🛚	Yes ☑ No
Remarks: SOILS Map Unit Name Taxonomy (Sub	ogroup):	Fitchville silt loam,	•	•	rs) (Tyne: C-Co	ncentration D-I	Series Dr	rainage Class:			d
Top	Bottom	ino depart riceded to decurrient the in		Matrix	то.) (Туро. 0—00	Hochtration, B=E		Mottles	Allon: 1 L=1 oro Elimit	g, Wi–Watiny	Texture
Depth	Depth	Horizon	Color (M		%		Color (Moist)	%	Туре	Location	(e.g. clay, sand, loam)
•	 	110112011	,				, , , , , , , , , , , , , , , , , , ,				,
0	6		10YR	4/4	100						silt loam
							I				
	+										
	Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N)	 adicators (check he	 	rs are no edox Matrix ace Below Date Surface (reyed Matrix Matirx ark Surface Dark Surface	t present ark Surface MLRA 147, 148) ix):	F12 - Iron-Manganes F13 - Umbric Surface F19 - Piedmont Floo	se Masses (LRR N, e (MLRA 122, 136) dplain Soils (MLRA	 MLRA 136)	 Indicators for A10 - 2cm M A16 - Coast P F19 - Piedmon TF12 - Very Other (Expla	 Problematic Soils ¹
	Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	adicators (check he	ere if indicato S5 - Sandy Re S6 - Stripped I S7 - Dark Surf S8 - Polyvalue S9 - Thin Dark F2 - Loamy GI F3 - Depleted F6 - Redox Da F7 - Depleted	rs are no edox Matrix ace Below Da Surface Geyed Matrix Matirx ark Surface Dark Surface Epressions	t present ark Surface MLRA 147, 148) ix e ace):	F12 - Iron-Manganes F13 - Umbric Surface F19 - Piedmont Floo	se Masses (LRR N, e (MLRA 122, 136) dplain Soils (MLRA 127, 147)	MLRA 136) 148) 148) Cultic vegetation and we	 Indicators for A10 - 2cm M A16 - Coast P F19 - Piedmon TF12 - Very Other (Expla	Problematic Soils 1 Iuck (MLRA 147) Prairie Redox (MLRA 147, 148) Problematic Soils (MLRA 136, 147) Prairie Redox (MLRA 136, 147) Prairie Redox (MLRA 136, 147) Prairie Redox (MLRA 147, 148) Present, unless disturbed or problematic.
	Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N)	adicators (check he	ere if indicato S5 - Sandy Re S6 - Stripped I S7 - Dark Surf S8 - Polyvalue S9 - Thin Dark F2 - Loamy GI F3 - Depleted F6 - Redox Da F7 - Depleted	rs are no edox Matrix ace Below Date Surface (reyed Matrix Matirx ark Surface Dark Surface	t present ark Surface MLRA 147, 148) ix e ace):	F12 - Iron-Manganes F13 - Umbric Surface F19 - Piedmont Floo	se Masses (LRR N, e (MLRA 122, 136) dplain Soils (MLRA	MLRA 136) 148) 148) Cultic vegetation and we	 Indicators for A10 - 2cm M A16 - Coast P F19 - Piedmon TF12 - Very Other (Expla	

Sample Point: SP-2



Lemaster- Lick 138 kV Transmission Line Relocation Project

Project/Site:

WETLAND DETERMINATION DATA FORM

Wetland ID: Wetland 1

,	Species Name		% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.						
2.						Number of Dominant Species that are OBL, FACW, or FAC:(A)
3.						
4.						Total Number of Dominant Species Across All Strata:(B)
5.						
6.						Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
7.						
8.						Prevalence Index Worksheet
9.						Total % Cover of: Multiply by:
10.						OBL spp. $0 x 1 = 0$
		Total Cover =	0			FACW spp. $\underline{\qquad}$ $\underline{\qquad}$ $\underline{\qquad}$ $\underline{\qquad}$ $\underline{\qquad}$ 10
						FACW spp. 5
	tratum (Plot size: 15 ft radius)					FACU spp. 82 $X 4 = 328$
1.						UPL spp. $\underline{\qquad}$ $X 5 = \underline{\qquad}$
2.						Total 07 (A) 260 (D)
3. 4.						Total <u>97</u> (A) <u>368</u> (B)
4. 5.						Prevalence Index = $B/A = 3.794$
6.						FIEVAIGHEE HUEX = D/A = 3.734
7.						
8.						Hydrophytic Vegetation Indicators:
9.						Yes No Rapid Test for Hydrophytic Vegetation
10.						Yes No Dominance Test is > 50%
		Total Cover =	0			U
						☐ ☑ Yes No Morphological Adaptations (Explain) *
rb Stratum (P	lot size: 5 ft radius)					Yes No Problem Hydrophytic Vegetation (Explain) *
1.	Schedonorus arundinaceus		25	Υ	FACU	
2.	Lonicera japonica		10	N	FAC	□ * Ind⊋tators of hydric soil and wetland hydrology must be
3.	Solidago altissima		25	Υ	FACU	present, unless disturbed or problematic.
4.	Plantago lanceolata		5	N	FACW	Definitions of Vegetation Strata:
5.	Melilotus officinalis		2	N	FACU	
6	Daucus carota		5	N	UPL	Tree - Woody plants 3 in. (7.6cm) or more in diameter at
7.	Achillea millefolium		5	N	FACU	breast height (DBH), regardless of height.
8.	Trifolium repens		10	N	FACU	
9.	Apocynum cannabinum		10	N	FACU	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.	Dipsacus fullonum		5	N	FACU	ft. tall.
11.						
12.						Herb - All herbaceous (non-woody) plants, regardless of size,
13.						and woody plants less than 3.28 ft. tall.
14.						
15.						Woody Vines - All woody vines greater than 3.28 ft. in height.
		Total Cover =	102			
ody Vina Stra	atum (Plot size: 30 ft radius)					
1.	(Plot Size: 30 it radius)					
2.						
3.						Hydrophytic Vegetation Present Yes No
4.						
5.						
<u> </u>		Total Cover =	0			
emarks:						



Drainat/Citar												
Project/Site:		k 138 kV Transmission	Line Relocation	on Project		Stant	ec Project #:	193704783		Date:	02/10/17	
Applicant:	American E	Electric Power								County:	Athens	
Investigator #1:	Jody Nicho	Ison		Invest	tigator #2:					State:	Ohio	
Soil Unit:	Udorthents, k	oamy					Classification	: PEM1A		Wetland ID:	Wetland 2	
Landform:	Side slope	1 44 1	00 007447		cal Relief:		0.400			Sample Point:		
Slope (%):	5-10		39.387417		<u>-ongitude:</u>					Community ID	: PEM	
		itions on the site typ			ear? (If no, e	•		☑ Yes □	No	Section:		
•		or Hydrology □ sign	•			Are		ımstances pre		Township:	D:	
		or Hydrology □ natu	irally probler	natic?			✓ Yes	s 🗆 No		Range:	Dir:	
SUMMARY OF		10		V	. N.			l la calai a O a il a	D		- V	Ma
Hydrophytic Ve	•			☑ Yes				Hydric Soils		1/:4b:	☑ Yes □	No
Wetland Hydrol	ogy Present?			☑ Ye:	s □ No			Is This Samp	oling Point v	vitnin A vveti	and? ☑ Yes ■	No
Remarks:												
HYDROLOGY												
Wetland Hydro	ology Indica	tors (Check here if	indicators a	re not pre	esent):				Secondary:			
<u>Primary</u>					5.5. 11. .	.				B6 - Surface S		
☑	A1 - Surface				B9 - Wate						egetated Concave Surface	
	A2 - High Wa A3 - Saturation				B13 - Aqu B14 - Tru					B10 - Drainage B16 - Moss Tri		
	B1 - Water M				C1 - Hydr						on Water Table	
	B2 - Sedimer						spheres on Livi	ng Roots		C8 - Crayfish B		
	B3 - Drift Dep						educed Iron				n Visible on Aerial Imagery	
	B4 - Algal Ma						eduction in Tilled	l Soils			r Stressed Plants	
	B5 - Iron Dep		a a m /		C7 - Thin					D2 - Geomorph		
	B7 - Inundatio	on Visible on Aerial Ima	gery		Other (Ex	piain in Re	emarks)			D3 - Shallow A D4 - Microtopo		
										D5 - FAC-Neut	•	
Field Observat	ions:											
Surface Water		☑ Yes □ No	Depth:	0-1	(in.)							
Water Table Pro		☑ Yes □ No	Depth:		(in.)			Wetland Hy	drology Pre	esent? □	Yes □ No	
Saturation Pres		☑ Yes □ No	Depth:		(in.)							
					. ,							
	ed Data (stre	am gauge, monitoring	g well, aerial	photos, p	revious ins	pections), if available:		N/A			
Remarks:												
SOILS												
SOILS Map Unit Name		, loamy			S	Series Dr	ainage Class	: N/A				
SOILS Map Unit Name Taxonomy (Sub	group):						•					
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	ogroup): otion (Describe to th	, loamy ne depth needed to document the indic	eator or confirm the abs				•	rix, CS=Covered/Coated S	and Grains; Location:	PL=Pore Lining, M=Mat		
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	ogroup): otion (Describe to the Bottom	ne depth needed to document the indic		Matrix	s.) (Type: C=Conc	entration, D=Dep	oletion, RM=Reduced Mat	rix, CS=Covered/Coated S			Texture	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	ogroup): otion (Describe to th		cator or confirm the absorbed Color (Matrix		entration, D=Dep	•	rix, CS=Covered/Coated S	and Grains; Location:	PL=Pore Lining, M=Mat		loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip	ogroup): otion (Describe to the Bottom	ne depth needed to document the indic		Matrix	s.) (Type: C=Conc	entration, D=Dep	oletion, RM=Reduced Mat	rix, CS=Covered/Coated S			Texture	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth	ogroup): otion (Describe to the Bottom Depth	ne depth needed to document the indic	Color (Matrix Moist)	s.) (Type: C=Conco	entration, D=Dep	oletion, RM=Reduced Mat	rix, CS=Covered/Coated S Mottles	Туре	Location	Texture (e.g. clay, sand,	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	egroup): otion (Describe to the Bottom Depth 16	ne depth needed to document the indic Horizon	Color (Matrix Moist) 4/1	% 80	entration, D=Dep	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type D	Location 	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	pgroup): Bottom Depth 16	Horizon	Color (10YR 	Matrix Moist) 4/1	% 80	entration, D=Dep	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type D 	Location 	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	Bottom Depth 16	Horizon	Color (10YR 	Matrix Moist) 4/1	% 80 	Col 10YR	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type D	Location	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	Bottom Depth 16	Horizon	Color (10YR 	Matrix Moist) 4/1	% 80 	Col 10YR	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type	Location	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	pgroup): Bottom Depth 16	Horizon	Color (10YR 	Matrix Moist) 4/1	% 80	Col 10YR	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type	Location	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	pgroup): Bottom Depth 16	Horizon	Color (10YR 	Matrix Moist) 4/1	% 80	Col 10YR	oletion, RM=Reduced Mat or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type D	Location	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	pgroup): Bottom Depth 16	Horizon	Color (10YR	Matrix Moist) 4/1	80 	Col 10YR	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type D	Location	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	pgroup): Depth Depth 16	Horizon dicators (check her	Color (10YR e if indicator	Matrix Moist) 4/1 rs are not	80 	Col 10YR	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type D	Location Indicators fo	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field Indepted to the second point of the second poin	Horizon	Color (10YR e if indicator S5 - Sandy F	Matrix Moist) 4/1 rs are not Redox	80 	Col 10YR	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N,□	Location Indicators fo	Texture (e.g. clay, sand, silty clay	loam)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric	Bottom Depth 16 Soil Field Indepted to the	Horizon dicators (check her	Color (10YR e if indicator	Matrix Moist) 4/1 rs are not Redox d Matrix	80 	Col 10YR	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type	Location Indicators for A10 - 2cm MA16 - Coast	Texture (e.g. clay, sand, silty clay	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe	Bottom Depth 16 Soil Field Income	Horizon	Color (10YR re if indicator S5 - Sandy F S6 - Stripped	Matrix Moist) 4/1 rs are not Redox d Matrix urface	s.) (Type: C=Conce	Col 10YR):	or (Moist) 5/6	rix, CS=Covered/Coated S Mottles % 20	Type	Location Indicators for A10 - 2cm MA16 - Coast MET F19 - Piedmon	Texture (e.g. clay, sand, silty clay	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic	Bottom Depth 16 Soil Field Incomed	Horizon dicators (check her	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su	Matrix Moist) 4/1 rs are not Redox d Matrix urface ue Below D	% 80 t present	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	rix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, silty clay	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified La A10 - 2 cm Muc	Bottom Depth 16 Soil Field Incestible to the second control of the secon	Horizon	Color (10YR	Matrix Moist) 4/1	% 80 t present	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, silty clay	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 16 Soil Field Incedon C Sulfide ayers k (LRR N) Below Dark Su	Horizon	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete	Matrix Moist) 4/1 rs are not Redox d Matrix urface ue Below Dark Surface Gleyed Mad Matrix	% 80 t present Oark Surface (MLRA 147, 148) trix	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, silty clay	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified La A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar	Bottom Depth 16 Soil Field Incedon C Sulfide ayers k (LRR N) Below Dark Su k Surface	Horizon	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox [Matrix Moist) 4/1	% 80 t present Park Surface (MLRA 147, 148) trix ce	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, silty clay	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc	Bottom Depth 16 Soil Field Incedon C Sulfide ayers k (LRR N) Below Dark Su k Surface k Mineral (LRR N	Horizon dicators (check her	Color (10YR	Matrix Moist) 4/1	% 80 t present Oark Surface (MLRA 147, 148 trix ce	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N,□ RA 122, 136) □ in Soils (MLRA□ □ all (MLRA 127, 14□	Location Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, silty clay	
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley	Bottom Depth 16 Soil Field Indeedon CSulfide ayers Below Dark Su k Surface k Mineral (LRR N) /ed Matrix	Horizon dicators (check her	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox [Matrix Moist) 4/1	% 80 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N, RA 122, 136) in Soils (MLRA di (MLRA 127, 14) ors of hydrophytic veg	Location Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, silty clay)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc	Bottom Depth 16 Soil Field Incedon C Sulfide ayers k (LRR N) Below Dark Su k Surface k Mineral (LRR N	Horizon dicators (check her	Color (10YR	Matrix Moist) 4/1	% 80 t present Oark Surface (MLRA 147, 148 trix ce	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N, RA 122, 136) in Soils (MLRA di (MLRA 127, 14) ors of hydrophytic veg	Location Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, silty clay)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A1- Depleted A1- Depleted A1- Depleted A1- Thick Dar S1 - Sandy Muc S2 - Sandy Gley Restrictive Layer (If Observed)	Bottom Depth 16 Soil Field Indeedon CSulfide ayers Below Dark Su k Surface k Mineral (LRR N) /ed Matrix	Horizon dicators (check her	Color (10YR	Matrix Moist) 4/1	% 80 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N, RA 122, 136) in Soils (MLRA di (MLRA 127, 14) ors of hydrophytic veg	Location Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, silty clay)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer	Bottom Depth 16 Soil Field Indeedon CSulfide ayers Below Dark Su k Surface k Mineral (LRR N) /ed Matrix	Horizon dicators (check her	Color (10YR	Matrix Moist) 4/1	% 80 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N, RA 122, 136) in Soils (MLRA di (MLRA 127, 14) ors of hydrophytic veg	Location Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, silty clay)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A1- Depleted A1- Depleted A1- Depleted A1- Thick Dar S1 - Sandy Muc S2 - Sandy Gley Restrictive Layer (If Observed)	Bottom Depth 16 Soil Field Indeedon CSulfide ayers Below Dark Su k Surface k Mineral (LRR N) /ed Matrix	Horizon dicators (check her	Color (10YR	Matrix Moist) 4/1	% 80 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N, RA 122, 136) in Soils (MLRA di (MLRA 127, 14) ors of hydrophytic veg	Location Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, silty clay)
SOILS Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified La A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer (If Observed)	Bottom Depth 16 Soil Field Indeedon CSulfide ayers Below Dark Su k Surface k Mineral (LRR N) /ed Matrix	Horizon dicators (check her	Color (10YR	Matrix Moist) 4/1	% 80 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=Dep	or (Moist) 5/6 F12 - Iro F13 - Un F19 - Pie	mix, CS=Covered/Coated S Mottles % 20	Type D asses (LRR N, RA 122, 136) in Soils (MLRA di (MLRA 127, 14) ors of hydrophytic veg	Location Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, silty clay)



Project/Site:	Lemaster-Lick 138 kV Transmission Line Relocation	on Project		Wetland ID: Wetland 2 Sample Point sp-3
VEGETATION	(Species identified in all uppercase are non-native	species.)		
Tree Stratum (Plo	t size: 30 ft radius)			Deminera Test Merkehest
4	<u>Species Name</u>	% Cover Dominan		Dominance Test Worksheet
1. 2.				Number of Deminent Species that are ORL EACIN or EAC:
3.				Number of Dominant Species that are OBL, FACW, or FAC:3(A)
	_ 			Total Number of Deminant Species Agrees All Strate: 3 (R)
4.				Total Number of Dominant Species Across All Strata: 3 (B)
5. 6.				Percent of Dominant Species That Are OBL, FACW, or
7.	_ 			FAC: <u>100.0%</u> (A/B)
8.				Prevalence Index Worksheet
9.				Total % Cover of: Multiply by:
10.				OBL spp. 10
10.	Total Cover =			
	Total Gover =	. 0		FACW spp. $\frac{75}{5}$ $\frac{x}{3}$ $\frac{2}{5}$ $\frac{150}{5}$
20				FACU spp. 5 x 4 = 20
1.	Cephalanthus occidentalis	10 Y	OBL	UPL spp. $0 \times 5 = 0$
2.				
3.				Total 95 (A) 195 (B)
4.				
5.				Prevalence Index = B/A = 2.053
6.				
7.				
8.				Hydrophytic Vegetation Indicators:
9.				Yes □ □ No Rapid Test for Hydrophytic Vegetation
10.				Yes ☑ □ No Dominance Test is > 50%
	Total Cover =	10		Yes ☑ □ No Prevalence Index is ≤ 3.0 *
				Yes □ □ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	size: 5 ft radius)			Yes □ □ No Problem Hydrophytic Vegetation (Explain) *
1.	Juncus effusus	20 Y	FACW	
2.	Scirpus cyperinus	15 N	FACW	* Indicators of hydric soil and wetland hydrology must be
3.	Spiraea tomentosa	20 Y	FACW	present, unless disturbed or problematic.
4.	Agrimonia parviflora	10 N	FACW	Definitions of Vegetation Strata:
5.	Dipsacus fullonum	5 N	FACU	
6	Poa palustris	10 N	FACW	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.	Penstemon digitalis	5 N	FAC	height (DBH), regardless of height.
8.				
9.				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.				ft. tall.
11.				
12.				Herb - All herbaceous (non-woody) plants, regardless of size,
13.				and woody plants less than 3.28 ft. tall.
14.				
15.				Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	÷ 85		
Woody Vine Stratu	ım (Plot size: 30 ft radius)			
1.				
2.				
3.				Hydrophytic Vegetation Present ☑ Yes ☐ No
4.				
5.	Total Cover -			
Pamarka:	Total Cover =	: 0		
Remarks:				
A statistics of the				
Additional Ren	narks:			



Project/Site: Applicant: Investigator #1:	American E	ck 138 kV Transmission Electric Power	Line Relocation	·	tigator #2:		tec Project #:	193704783		Date: County: State:	02/10/17 Athens Ohio
Soil Unit:	Udorthents, I			1117030			Classification:	: NA		Wetland ID:	Wetland 2
Landform:	Side slope			Lo	cal Relief:					Sample Point:	
Slope (%):	5-10		39.387119		_ongitude:			Datum:		Community ID:	
Are climatic/hyd	drologic cond	itions on the site typ	ical for this t	ime of ye	ar? (If no, e					Section:	
_		or Hydrology 🗆 sign	•			Ar		umstances pre	sent?	Township:	
<u> </u>		or Hydrology □ natu	rally probler	natic?			✓ Yes	s 🗆 No		Range:	Dir:
SUMMARY OF		10							D 40		- N
Hydrophytic Ve	_			□ Yes				Hydric Soils		lithin A Math	□ Yes ☑ No
Wetland Hydrol Remarks:	logy Present	?		□ Yes	s ☑ No			Is This Samp	oling Point v	vilnin A vveu	and? ■ Yes ■ No
Remarks.											
HYDROLOGY											
		stone (Obsolvberg if	! al! a a t a u a . a.						0 1		
	• •	ators (Check here if	indicators a	e not pre	esent):	V			Secondary: □ I	B6 - Surface So	oil Crooks
<u>Primary</u> □	<u>v.</u> A1 - Surface	Water			B9 - Wate	er-Stained	Leaves				egetated Concave Surface
	A2 - High Wa				B13 - Aqu					B10 - Drainage	
	A3 - Saturati				B14 - True					B16 - Moss Trir	
	B1 - Water N B2 - Sedime				C1 - Hydro		ide Odor Ospheres on Livii	na Roots		C2 - Dry Seaso C8 - Crayfish B	
	B3 - Drift De	•					educed Iron	ing ixoots		•	Visible on Aerial Imagery
	B4 - Algal Ma						eduction in Tilled	d Soils			Stressed Plants
	B5 - Iron Der				C7 - Thin					D2 - Geomorph	
	B7 - Inundati	on Visible on Aerial Ima	gery		Other (Ex	plain in Re	emarks)			D3 - Shallow Aດ D4 - Microtopoເ	
										D5 - FAC-Neuti	
Field Observat	tions:										
Surface Water Water Table Pr Saturation Pres	Present? esent?	□ Yes ☑ No□ Yes ☑ No□ Yes ☑ No	Depth: Depth: Depth:		(in.) (in.) (in.)			Wetland Hyd	drology Pre	esent?	Yes ☑ No
Describe Record	led Data (stre	eam gauge, monitoring	n well, aerial	photos, p	revious ins	pections), if available:		N/A		
Remarks:		yanı gaage, memeni	,, a	<u>р. точоо, р.</u>			,, a. a. a. a. a. a. a.				
rtomanto.											
SOILS											
Map Unit Name	e: Udorthents	, loamy			S	Series Dr	rainage Class:	: N/A			
Taxonomy (Sub											
	otion (Describe to t	he depth needed to document the indic	ator or confirm the abs	ence of indicators	s.) (Type: C=Conce	entration, D=De	pletion, RM=Reduced Mati	trix, CS=Covered/Coated Sa	and Grains; Location:	PL=Pore Lining, M=Matr	
Тор	Bottom			Matrix				Mottles			Texture
Depth	Depth	Horizon	Color (\	%	-					┥
0	8			·		Col	or (Moist)	%	Type	Location	(e.g. clay, sand, loam)
8	14		10YR	3/3	60						(e.g. clay, sand, loam) silt
	17		10YR 10YR	·			or (Moist) 7/6				(e.g. clay, sand, loam)
				3/3	60						(e.g. clay, sand, loam) silt
			10YR	3/3	60 75		7/6	 25	 C	 M	(e.g. clay, sand, loam) silt clay
			10YR 	3/3 3/2 	60 75 	 10YR 	7/6 	25 	C	 M 	(e.g. clay, sand, loam) silt clay
		 	10YR 	3/3 3/2 	60 75 	 10YR 	 7/6 	 25 	C	 M 	(e.g. clay, sand, loam) silt clay
		 	10YR 	3/3 3/2 	60 75 	 10YR 	 7/6 	 25 	 C 	 M 	(e.g. clay, sand, loam) silt clay
		 	10YR	3/3 3/2 	60 75 	 10YR 	 7/6 	 25 	 C 	 M 	(e.g. clay, sand, loam) silt clay
 	Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N		10YR	3/3 3/2	60 75 t present Oark Surface (MLRA 147, 148) trix ce rface	 10YR): ☑	 7/6 F12 - Iro F13 - Un F19 - Pie	25	C	M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	(e.g. clay, sand, loam) silt clay r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) at Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley	Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	dicators (check her	e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy C F3 - Deplete F6 - Redox E F7 - Deplete	3/3 3/2	60 75 t present Oark Surface (MLRA 147, 148) trix ce rface	 10YR): ☑	 7/6 F12 - Iro F13 - Un F19 - Pie	25	C	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	(e.g. clay, sand, loam) silt clay r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) Int Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks) drology must be present, unless disturbed or problematic.
NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S1 - Sandy Gley Restrictive Layer (If Observed)	Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	dicators (check her	e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy C F3 - Deplete F6 - Redox E F7 - Deplete	3/3 3/2	60 75 t present Oark Surface (MLRA 147, 148) trix ce rface	 10YR): ☑	 7/6 F12 - Iro F13 - Un F19 - Pie	25	C	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	(e.g. clay, sand, loam) silt clay r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) at Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
NRCS Hydric NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc	Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	dicators (check her	e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy C F3 - Deplete F6 - Redox E F7 - Deplete	3/3 3/2	60 75 t present Oark Surface (MLRA 147, 148) trix ce rface	 10YR): ☑	 7/6 F12 - Iro F13 - Un F19 - Pie	25	C	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	(e.g. clay, sand, loam) silt clay r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) Int Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks) drology must be present, unless disturbed or problematic.



WETLAND DETERMINATION DATA FORM

Project/Site:	Lemaster-Lick 138 kV Transmission Line Relocation	n Project		Wetland ID: Wetland 2 Sample Point SP-4
VEGETATION	(Species identified in all uppercase are non-native	species.)		
Tree Stratum (Plo	ot size: 30 ft radius)	0/ Carran Damina	at Ind Otation	Dominance Test Worksheet
1	<u>Species Name</u>	% Cover Domina	nt Ind.Status	Dominance rest worksneet
1. 2.				Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)
3.				(A)
4.				Total Number of Dominant Species Across All Strata: 3 (B)
5.				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
7.				· / · · · · · · · · · · · · · · · · · ·
8.				Prevalence Index Worksheet
9.				Total % Cover of: Multiply by:
10.				OBL spp. $0 X 1 = 0$
	Total Cover =	0		FACW spp. $0 x 2 = 0$
				FAC spp. $0 X 3 = 0$
20				FACU spp. 40 $x 4 = 160$
1.				UPL spp. 20 $x = 5$ 100
2.				
3.				Total 60 (A) 260 (B)
4.				D
5.				Prevalence Index = B/A = 4.333
6. 7.				
7. 8.	_ 			Hydrophytic Vogetation Indicators:
9.	_ 			Hydrophytic Vegetation Indicators:
10.				Yes □ ☑ No Rapid Test for Hydrophytic Vegetation Yes □ ☑ No Dominance Test is > 50%
10.	Total Cover =	0		Yes □ ☑ No Prevalence Index is ≤ 3.0 *
	Total Gover =	O		Yes □ ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	t size: 5 ft radius)			Yes □ ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Daucus carota	20 Y	UPL	
2.	Solidago altissima	20 Y	FACU	* Indicators of hydric soil and wetland hydrology must be
3.	Dipsacus fullonum	20 Y	FACU	present, unless disturbed or problematic.
4.				Definitions of Vegetation Strata:
5.				
6				Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.				height (DBH), regardless of height.
8.				
9.				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.				ft. tall.
11.				
12.				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.				and woody plants less than 3.20 it. tall.
14.				
15.	 			Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	60		
M/	(DL 4 - 1 0.2 % 11 -)			
1	um (Plot size: 30 ft radius)			
1. 2.				
2. 3.	_ 			Hydrophytic Vocatation Present - Voc No.
3. 4.	 			Hydrophytic Vegetation Present □ Yes ☑ No
5.	 			
<u>J.</u>	Total Cover =	0		
Remarks:	10141 00101 -	<u>_</u>		
. tomaino.				
Additional Rer	narke:			
Auditional Ref	nai na.			



Project/Site: Applicant:	American E	k 138 kV Transmission Electric Power	Line Relocation	-			ec Project #:	193704783		Date: County:	02/10/17 Athens
Investigator #1:					tigator #2:					State:	Ohio
Soil Unit:		moreland complex, 40 to	o 70 percent s				Classification:	: NA		Wetland ID:	Wetland 3
Landform:	Side slope		- 20 200247		cal Relief:			Datum		Sample Point:	
Slope (%): Are climatic/byo	Yrologic cond	itions on the site typi	: 39.380211		<u>-ongitude:</u>			Datum: ☑ Yes □		Community ID: Section:	: PEIVI
-		or Hydrology □ signi			ai: (11 110, 5	1		ımstances pre	_	Township:	
		or Hydrology □ signi or Hydrology □ natui				/ 115	Friormal circo	•		Range:	Dir:
SUMMARY OF											
Hydrophytic Ve		sent?		✓ Yes	s 🗆 No			Hydric Soils I	Present?		
Wetland Hydrol	•			✓ Yes				Is This Samp		ithin A Wetl	and? ☑ Yes ■ No
Remarks:											
HYDROLOGY											
_	• •	itors (Check here if i	indicators ar	re not pre	esent):	: 🗆			Secondary:	=	
<u>Primary</u> ☑	<u>/:</u> A1 - Surface	Mater			RO - Wate	er-Stained	א אורס ו			B6 - Surface So B8 - Sparsely Vo	oil Cracks egetated Concave Surface
	A1 - Surface A2 - High Wa					uatic Fauna				Bo - Sparsely vo B10 - Drainage	
v	A3 - Saturation	on			B14 - Tru	e Aquatic I	Plants			B16 - Moss Trir	m Lines
	B1 - Water M					ogen Sulfic		5			on Water Table
	B2 - Sedimer B3 - Drift Dep						spheres on Livii educed Iron	ng Roots		C8 - Crayfish B C9 - Saturation	Burrows Visible on Aerial Imagery
	B4 - Algal Ma						duction in Tilled	l Soils			Stressed Plants
	B5 - Iron Dep	oosits			C7 - Thin	Muck Surf	ace			D2 - Geomorph	nic Position
	B7 - Inundation	on Visible on Aerial Imaç	gery		Other (Ex	plain in Re	marks)			D3 - Shallow A	
										D4 - Microtopo D5 - FAC-Neut	
Field Observat	Hanci								<u> </u>	DO - I AO NOGO	idi i est
Field Observat		T Ves T No	Danth	0.1	(in)						
Surface Water		☑ Yes □ No □ Yes ☑ No	Depth:		(in.)			Wetland Hyd	drology Pre	esent?	Yes □ No
Water Table Pr Saturation Pres		☐ Yes ☐ No	Depth: Depth:		(in.) (in.)						
			·			\					
	led Data (stre	eam gauge, monitoring	y well, aeriai	photos, p	revious ins	spections)	, if available:		N/A		
Remarks:											
SOILS Man Unit Name	Dakalh Wa	strateland complex	· 40 to 70 n	arcent el		Carion Dr	-incan Closes	- K1/Λ			
Taxonomy (Sub		estmoreland complex	(, 40 ιο το ρ	ercem su	opes c	יום פאוואס		IN/A			
							ainage Class:	14// (
1 101110 = 0000	(I) bescribe to the	a depth peeded to document the indica	ator or confirm the abso	ance of indicators	Type: C=Conc	ontration D=Den			and Grains: Location:	PL_Pare Lining M=Matr	wish
		ne depth needed to document the indica	ator or confirm the abs		s.) (Type: C=Conc	entration, D=Dep		rix, CS=Covered/Coated Sa	and Grains; Location:	PL=Pore Lining, M=Matr	
Тор	Bottom			Matrix	_		letion, RM=Reduced Mati	rix, CS=Covered/Coated Sa			Texture
Top Depth	Bottom Depth	ne depth needed to document the indication	Color (Matrix Moist)	%	Col	letion, RM=Reduced Mate	rix, CS=Covered/Coated Sa Mottles %	Туре	Location	Texture (e.g. clay, sand, loam)
Top Depth 0	Bottom Depth 12	Horizon 	Color (Matrix Moist) 6/1	% 70	Cole 10YR	or (Moist) 7/8	rix, CS=Covered/Coated Sa Mottles % 10	Type C	Location M	Texture (e.g. clay, sand, loam) clay
Top Depth 0 	Bottom Depth 12	Horizon 	Color (10YR 	Matrix Moist) 6/1	% 70 	Cold 10YR 5YR	or (Moist) 7/8 6/8	rix, CS=Covered/Coated Sa Mottles % 10 10	Type C C	Location M M	Texture (e.g. clay, sand, loam) clay clay
Top Depth 0 	Bottom Depth 12 	Horizon 	Color (10YR 	Matrix Moist) 6/1	% 70 	Cold 10YR 5YR 7.5YR	or (Moist) 7/8 6/8 2.5/1	mix, CS=Covered/Coated Sa Mottles % 10 10 10	Type C C C	Location M M M	Texture (e.g. clay, sand, loam) clay clay clay clay
Top Depth 0	Bottom Depth 12	Horizon 	Color (10YR 	Matrix Moist) 6/1	% 70 	Cold 10YR 5YR 7.5YR	or (Moist) 7/8 6/8 2.5/1	mix, CS=Covered/Coated Sa Mottles % 10 10 10	Type C C C	Location M M M	Texture (e.g. clay, sand, loam) clay clay clay clay
Top Depth 0	Bottom Depth 12	Horizon	Color (10YR 	Matrix Moist) 6/1	% 70 	Cold 10YR 5YR 7.5YR 	or (Moist) 7/8 6/8 2.5/1	mix, CS=Covered/Coated Saturday Mottles % 10 10 10	Type C C C	Location M M M	Texture (e.g. clay, sand, loam) clay clay clay
Top Depth 0	Bottom Depth 12	Horizon	Color (10YR 	Matrix Moist) 6/1	% 70 	Cold 10YR 5YR 7.5YR 	or (Moist) 7/8 6/8 2.5/1	mix, CS=Covered/Coated Saturday Mottles % 10 10 10	Type C C	Location M M	Texture (e.g. clay, sand, loam) clay clay clay
Top Depth 0	Bottom Depth 12	Horizon	Color (10YR 	Matrix Moist) 6/1	% 70 	Cold 10YR 5YR 7.5YR 	or (Moist) 7/8 6/8 2.5/1	mix, CS=Covered/Coated Saturday Mottles % 10 10 10	Type C C C	Location M M M	Texture (e.g. clay, sand, loam) clay clay clay
Top Depth 0	Bottom Depth 12	Horizon	Color (10YR 	Matrix Moist) 6/1	% 70	Cold 10YR 5YR 7.5YR 	Ietion, RM=Reduced Mate 7/8 6/8 2.5/1 	mix, CS=Covered/Coated Saturday Mottles % 10 10 10	Type C C C	Location M M	Texture (e.g. clay, sand, loam) clay clay clay
Top Depth 0 NRCS Hydric	Bottom Depth 12	Horizon dicators (check here	Color (10YR e if indicator	Matrix Moist) 6/1 rs are not	% 70	Cold 10YR 5YR 7.5YR 	letion, RM=Reduced Mate 7/8 6/8 2.5/1 	mix, CS=Covered/Coated Saturday Mottles % 10 10 10	Type	Location M M Indicators fo	Texture (e.g. clay, sand, loam) clay clay clay
Top Depth 0 NRCS Hydric A1- Histosol	Bottom Depth 12 Soil Field In	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F	Matrix Moist) 6/1 rs are not	% 70	Cold 10YR 5YR 7.5YR 	Section RM=Reduced Mate Or (Moist) 7/8 6/8 2.5/1 F12 - Iro	rix, CS=Covered/Coated Saturday Mottles % 10 10 10 n-Manganese Ma	Type C C C asses (LRR N,□	Location M M M Indicators fo	Texture (e.g. clay, sand, loam) clay clay clay
Top Depth 0 NRCS Hydric	Bottom Depth 12 Soil Field In	Horizon dicators (check here	Color (10YR e if indicator	Matrix Moist) 6/1 rs are not Redox d Matrix	% 70	Cold 10YR 5YR 7.5YR 	Section RM=Reduced Mate	mix, CS=Covered/Coated Saturday Mottles % 10 10 10	Type	Location M M M Indicators fo A10 - 2cm N A16 - Coast F	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils ¹ Muck (MLRA 147) Prairie Redox (MLRA 147, 148)
Top Depth O NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen	Bottom Depth 12 Soil Field In edon c Sulfide	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu	Matrix Moist) 6/1 rs are not Redox d Matrix urface ue Below D	% 70 t present	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	mix, CS=Covered/Coated Saturday Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplai	Type C C C SSSES (LRR N,	Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmort TF12 - Very	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) the Floodplain Soils (MLRA 136, 147) Shallow Dark Surface
Top Depth 0	Bottom Depth 12 Soil Field In edon c Sulfide ayers	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da	Matrix Moist) 6/1 rs are not Redox d Matrix urface ue Below D ark Surface	% 70 t present	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	mix, CS=Covered/Coated Saturday Mottles % 10 10 10 n-Manganese Manbric Surface (MLF)	Type C C C SSSES (LRR N,	Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmort TF12 - Very	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) the Floodplain Soils (MLRA 136, 147) Shallow Dark Surface
Top Depth 0 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N)	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (Matrix Moist) 6/1 rs are not Redox d Matrix urface ue Below D ark Surface Gleyed Ma	% 70 t present	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	mix, CS=Covered/Coated Saturday Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplai	Type C C C SSSES (LRR N,	Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmort TF12 - Very	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) ht Floodplain Soils (MLRA 136, 147) Shallow Dark Surface
Top Depth O NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Su	Horizon dicators (check here	Color (10YR	Matrix Moist) 6/1 rs are not Redox d Matrix arface ue Below Dark Surface Gleyed Mard Matrix ard Matrix arface Gleyed Mard Matrix	% 70 t present Park Surface (MLRA 147, 148) trix	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	mix, CS=Covered/Coated Saturday Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplai	Type C C C SSSES (LRR N,	Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmort TF12 - Very	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) the Floodplain Soils (MLRA 136, 147) Shallow Dark Surface
Top Depth O NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox [Matrix Moist) 6/1 rs are not Redox d Matrix urface ue Below D ark Surface Gleyed Matrix d Matrix Dark Surface	% 70 t present Park Surface (MLRA 147, 148) trix ce	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	mix, CS=Covered/Coated Saturday Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplai	Type C C C SSSES (LRR N,	Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmort TF12 - Very	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) the Floodplain Soils (MLRA 136, 147) Shallow Dark Surface
Top Depth O NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon dicators (check here	Color (10YR	Matrix Moist) 6/1 rs are not Redox d Matrix urface ue Below D ark Surface Gleyed Matrix d Matrix Dark Surface d Matrix	% 70 t present Dark Surface (MLRA 147, 148) trix ce rface	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	Mottles Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplained Parent Materia	Type C C C	Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) clay clay clay or Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) nt Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
Top Depth 0	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox E F7 - Deplete	Matrix Moist) 6/1 rs are not Redox d Matrix Jurface Jurface Jurface Gleyed Mark Surface Gleyed Mark Surface Jurk Surface	% 70 t present Park Surface (MLRA 147, 148) trix ce rface	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	Mottles Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplained Parent Materia	Type C C C C SSSES (LRR N,	Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) Int Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
Top Depth O	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox E F7 - Deplete	Matrix Moist) 6/1 rs are not Redox d Matrix urface ue Below D ark Surface Gleyed Matrix d Matrix Dark Surface d Matrix	% 70 t present Dark Surface (MLRA 147, 148) trix ce rface	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	Mottles Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplained Parent Materia	Type C C C C SSSES (LRR N, RA 122, 136) IN Soils (MLRA IN SOILS (Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) clay clay clay or Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) nt Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
Top Depth 0	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox E F7 - Deplete	Matrix Moist) 6/1 rs are not Redox d Matrix Jurface Jurface Jurface Gleyed Mark Surface Gleyed Mark Surface Jurk Surface	% 70 t present Park Surface (MLRA 147, 148) trix ce rface	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	Mottles Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplained Parent Materia	Type C C C C SSSES (LRR N, RA 122, 136) IN Soils (MLRA IN SOILS (Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) Int Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
Top Depth 0	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox E F7 - Deplete	Matrix Moist) 6/1 rs are not Redox d Matrix Jurface Jurface Jurface Gleyed Mark Surface Gleyed Mark Surface Jurk Surface	% 70 t present Park Surface (MLRA 147, 148) trix ce rface	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	Mottles Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplained Parent Materia	Type C C C C SSSES (LRR N, RA 122, 136) IN Soils (MLRA IN SOILS (Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) Int Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
Top Depth 0 NRCS Hydric	Bottom Depth 12 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	Color (10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox E F7 - Deplete	Matrix Moist) 6/1 rs are not Redox d Matrix Jurface Jurface Jurface Gleyed Mark Surface Gleyed Mark Surface Jurk Surface	% 70 t present Park Surface (MLRA 147, 148) trix ce rface	Cold 10YR 5YR 7.5YR): □	Ietion, RM=Reduced Mate Or (Moist)	Mottles Mottles % 10 10 10 n-Manganese Manbric Surface (MLF) edmont Floodplained Parent Materia	Type C C C C SSSES (LRR N, RA 122, 136) IN Soils (MLRA IN SOILS (Location M M M Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) clay clay clay pr Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) Int Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)



Project/Site:	Lemaster-Lick 138 kV Transmission Line Relocation	on Project			Wetland ID: Wetland 3 Sample Point SP-5
V-0					
VEGETATION	(Species identified in all uppercase are non-native	species.)			
Tree Stratum (Plo	t size: 30 ft radius)	0/ 0	Dansinant	la d Otatica	Dominance Test Worksheet
1	<u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance rest worksneet
1. 2.	_ 				Number of Deminant Species that are ORL EACW or EAC:
3.					Number of Dominant Species that are OBL, FACW, or FAC:1(A)
4.					Total Number of Dominant Species Across All Strata: 1 (B)
5.					(,,
6.	_ 				Percent of Dominant Species That Are OBL, FACW, or
7.	 				FAC: <u>100.0%</u> (A/B)
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp 0 x 1 = 0
10.	Total Cover =	0			FACW spp. $\frac{30}{80}$ $\frac{30}{x}$ $\frac{30}{2}$ $\frac{30}{x}$ $\frac{30}{2}$ $\frac{30}{x}$
	10(4) 20001 =	· ·			FAC spp. $0 X 3 = 0$
20					FACU spp. $\frac{20}{20}$ $\times 4 = \frac{80}{80}$
1.					UPL spp. $0 x 5 = 0$
2.					···
3.					Total 100 (A) 240 (B)
4.					
5.					Prevalence Index = $B/A = 2.400$
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes □ □ No Rapid Test for Hydrophytic Vegetation
10.					Yes ☑ □ No Dominance Test is > 50%
	Total Cover =	0			Yes ☑ □ No Prevalence Index is ≤ 3.0 *
					Yes □ □ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	,				Yes □ □ No Problem Hydrophytic Vegetation (Explain) *
1.	Spiraea tomentosa	70	Υ	FACW	* Indicators of hydric soil and wetland hydrology must be
2.	Andropogon virginicus	10	N	FACU	present, unless disturbed or problematic.
3.	Juncus effusus	5	N	FACW	
4.	Eupatorium perfoliatum	5	N	FACW	Definitions of Vegetation Strata:
5.	Liriodendron tulipifera	5	N	FACU	_
6	Pinus strobus	5	N	FACU	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
7.					neight (DBH), regardless of height.
8.	_ 				Continue (Charles Woody plants loss than 2 in DRH and greater than 2.29
9.	_ 				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.	_ 				
11.	_ 				Herb - All herbaceous (non-woody) plants, regardless of size,
12. 13.	_ 				and woody plants less than 3.28 ft. tall.
13.	_ 				
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
15.	Total Cover =	100			violay vinos need,ee g. estat. than elec in minorgin.
	Total Cover =	100			
Woody Vine Strati	ım (Plot size: 30 ft radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present ☑ Yes □ No
4.					
5.					
	Total Cover =	0			
Remarks:					
Additional Ren	narks:				



Project/Site:		ick 138 kV Transmissior	n Line Relocat	tion		Stant	tec Project #:	193704783		Date:	02/10/17	7	
Applicant:		Electric Power								County:	Athens		
Investigator #1	Jody Nicho	lson		Invest	igator #2:					State:	Ohio		
Soil Unit:		moreland complex, 40 t	to 70 percent s	•			Classification:	NA		Wetland ID:	Wetland	13	
Landform:	Side slope				cal Relief:					Sample Point:			
Slope (%):	7		39.380115		ongitude:				NAD83	Community ID:	UPL		
		itions on the site typi			ar? (If no, e			☑ Yes □	No	Section:			
		or Hydrology □ signi				Ar	e normal circu	•		Township:			
		or Hydrology □ natu	rally probler	natic?				□ No		Range:		Dir:	
SUMMARY OF													
Hydrophytic Ve	•			□ Yes				Hydric Soils					No
Wetland Hydro	logy Present?	?		□ Yes	s ☑ No			Is This Samp	oling Point V	Vithin A Wetla	and? \blacksquare	Yes 	No
Remarks:													
HYDROLOGY													
Wetland Hydr	ology Indica	itors (Check here if i	indicators ai	re not pre	sent):	v			Secondary:				
<u>Primar</u>	-	•		•	,					B6 - Surface So	oil Cracks		
	A1 - Surface				B9 - Wate					B8 - Sparsely Ve		oncave Surface	
	A2 - High Wa				B13 - Aqu					B10 - Drainage			
	A3 - Saturation				B14 - True					B16 - Moss Trir		abla	
	B2 - Sedimer				C1 - Hydr	•	ide Odoi ospheres on Livir	na Roots		C2 - Dry Seaso C8 - Crayfish B		able	
	B3 - Drift De	•					educed Iron	19 110013		C9 - Saturation		Aerial Imagery	
	B4 - Algal Ma				C6 - Rece	ent Iron Re	eduction in Tilled	Soils		D1 - Stunted or			
	B5 - Iron Dep				C7 - Thin					D2 - Geomorph		l	
	B7 - Inundati	on Visible on Aerial Imag	gery		Other (Ex	plain in R	emarks)			D3 - Shallow Ad		!! - .	
										D4 - Microtopog D5 - FAC-Neutr		lier	
Field Observe	······································									- TAO-Neuti	ai 163t		
Field Observa		- v - v	5		(!:- \								
Surface Water		□ Yes ☑ No	Depth:		(in.)			Wetland Hyd	drology Pro	esent?	Yes ☑	No	
Water Table Pr		□ Yes ☑ No	Depth:		(in.)			•	0,				
Saturation Pres	sent?	□ Yes ☑ No	Depth:		(in.)								
Describe Record	ded Data (stre	eam gauge, monitoring	g well, aerial	photos, p	revious ins	pections), if available:		N/A				
Remarks:													
i torriarito.													
Tromanto.													
SOILS													
SOILS	e: Dekalb-We	estmoreland complex	k, 40 to 70 p	ercent slo	opes S	Series Di	rainage Class:	N/A					
SOILS Map Unit Name		estmoreland complex	k, 40 to 70 p	ercent slo	opes S	Series D	rainage Class:	N/A					
SOILS Map Unit Name Taxonomy (Sul	ogroup):	•	•				•		and Grains; Location:	PL=Pore Lining, M=Matr	ix)		
SOILS Map Unit Name Taxonomy (Sul	ogroup): otion (Describe to the	estmoreland complex	•				•	ix, CS=Covered/Coated S	and Grains; Location:	PL=Pore Lining, M=Matr	ix)	Texture	
SOILS Map Unit Name Taxonomy (Sul Profile Descri	ogroup): otion (Describe to the Bottom	ne depth needed to document the indica	ator or confirm the abso	ence of indicators Matrix	.) (Type: C=Conc	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si	· · · · · · · · · · · · · · · · · · ·			Texture	oam)
SOILS Map Unit Name Taxonomy (Sul Profile Descrip Top Depth	ogroup): otion (Describe to the Bottom Depth	•	ator or confirm the abso	ence of indicators Matrix		entration, D=De	•	ix, CS=Covered/Coated S	and Grains; Location:	PL=Pore Lining, M=Matri		ı. clay, sand, lo	oam)
SOILS Map Unit Name Taxonomy (Sul Profile Descrip Top Depth 0	ogroup): otion (Describe to the Bottom Depth 4	ne depth needed to document the indicate Horizon	ator or confirm the absorber (ence of indicators Matrix Moist) 4/4	.) (Type: C=Conco	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Туре	Location		ı. clay, sand, lo loam	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4	Depth 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 4/4 6/8	%	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type 	Location 		ı. clay, sand, lo loam loam	oam)
SOILS Map Unit Name Taxonomy (Sultant) Profile Descrip Top Depth 0 4	Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 4/4 6/8	%	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type 	Location 		ı. clay, sand, lo loam loam 	oam)
SOILS Map Unit Name Taxonomy (Sul Profile Descrip Top Depth 0 4	Depth 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 4/4 6/8	%	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type 	Location		ı. clay, sand, lo loam loam 	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4	Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 4/4 6/8	.) (Type: C=Conce	CO	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type 	Location		l. clay, sand, lo loam loam 	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4	Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 4/4 6/8	%	entration, D=De	lor (Moist)	ix, CS=Covered/Coated Si Mottles %	Type	Location		l. clay, sand, lo loam loam 	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4	Degroup): Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 4/4 6/8	.) (Type: C=Conc	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type	Location		l. clay, sand, lo loam loam 	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4	bgroup): Deption (Describe to the string of	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 4/4 6/8	.) (Type: C=Conce	entration, D=De	lor (Moist)	ix, CS=Covered/Coated Si Mottles %	Type	Location	(e.g	loam loam loam 	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric	bgroup): Deption (Describe to the string of	Horizon dicators (check here	Color (10YR 10YR e if indicator	ence of indicators Matrix Moist) 4/4 6/8 rs are not	.) (Type: C=Conce	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type	Location Indicators fo	(e.g	l. clay, sand, loam loam atic Soils 1	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol	Bottom Depth 4 16 Soil Field In	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox	.) (Type: C=Conce	entration, D=De	lor (Moist)	ix, CS=Covered/Coated Si Mottles %	Type asses (LRR N,□	Location Indicators fo A10 - 2cm N	r Problem fuck (MLRA	loam loam atic Soils 1	oam)
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip	bgroup): Depth A 16 Soil Field In	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix	.) (Type: C=Conce	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F	r Problem Muck (MLRA	loam loam	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi	Bottom Depth 4 16 Soil Field In	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface	% present	entration, D=De	pletion, RM=Reduced Matri	ix, CS=Covered/Coated Si Mottles %	Type	Location Indicators fo A10 - 2cm M A16 - Coast F F19 - Piedmon	r Problem Muck (MLRA Prairie Redox t Floodplain	loam loam loam satic Soils ¹ (MLRA 147, 148) Soils (MLRA 136, 147)	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L	Bottom Depth 4 16 Soil Field In bedon c Sulfide ayers	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface ue Below D	.) (Type: C=Conce	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Si Mottles %	Type asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	r Problem fluck (MLRA Prairie Redox t Floodplain Shallow D	loam loam loam atic Soils ¹ (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc	Bottom Depth 4 16 Soil Field In Dedon C Sulfide Layers Ck (LRR N)	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface ue Below Dark Surface Gleyed Matrix	.) (Type: C=Conce	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Si Mottles % Manganese Mabric Surface (ML) edmont Floodplai	Type asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	r Problem fluck (MLRA Prairie Redox t Floodplain Shallow D	loam loam loam atic Soils ¹ (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 4 16 Soil Field In bedon c Sulfide ayers ck (LRR N) Below Dark Su	Horizon	color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy (F3 - Deplete	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox of Matrix arface are Below Dark Surface Gleyed Matrix difface Gleyed Matrix arface are Below Dark Surface Gleyed Matrix difface are Below Dark Surface Gleyed Matrix arface are Below Dark Surface Gleyed Matrix	% present ark Surface (MLRA 147, 148	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Si Mottles % Manganese Mabric Surface (ML) edmont Floodplai	Type asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	r Problem fluck (MLRA Prairie Redox t Floodplain Shallow D	loam loam loam atic Soils ¹ (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Da	Bottom Depth 4 16 Soil Field In bedon ic Sulfide Layers ck (LRR N) Below Dark Surk Surface	Horizon	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Depleted F6 - Redox D	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface ue Below Dark Surface di Matrix Oark Surface	% present ark Surface (MLRA 147, 148	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Si Mottles % Manganese Mabric Surface (ML) edmont Floodplai	Type asses (LRR N,□ RA 122, 136) In Soils (MLRA□	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	r Problem fluck (MLRA Prairie Redox t Floodplain Shallow D	loam loam loam atic Soils ¹ (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Da S1 - Sandy Muc	Bottom Depth 4 16 Soil Field In bedon ic Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon dicators (check here	color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox E F7 - Deplete	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface ue Below Dark Surface d Matrix Oark Surface d Dark Surface	%	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Si Mottles % Manganese Mabric Surface (ML) edmont Floodplaid d Parent Materia	Type asses (LRR N, RA 122, 136) In Soils (MLRA Al (MLRA 127, 14)	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	r Problem Muck (MLRA Prairie Redox t Floodplain Shallow Dain in Rema	loam loam atic Soils (MLRA 147, 148) Soils (MLRA 136, 147) eark Surface arks)	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Da S1 - Sandy Muc S4 - Sandy Gle	Bottom Depth 4 16 Soil Field In bedon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Depleted F6 - Redox D	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox of Matrix Jurface Jurface Jurface Gleyed Matrix Jurface Gleyed Matrix Jurface Jurk Surface Jurk	% present ark Surface (MLRA 147, 148 :rix ce face s	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Simulation Mottles % Manganese Mabric Surface (ML) dmont Floodplaid d Parent Materia	Type asses (LRR N, RA 122, 136) In Soils (MLRA All (MLRA 127, 14) Ors of hydrophytic ve	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	r Problem Muck (MLRA Prairie Redox t Floodplain Shallow Dain in Rema	loam loam loam atic Soils (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface arks)	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Da S1 - Sandy Muc	Bottom Depth 4 16 Soil Field In bedon ic Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon dicators (check here	color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox E F7 - Deplete	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface ue Below Dark Surface d Matrix Oark Surface d Dark Surface	%	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Si Mottles % Manganese Mabric Surface (ML) edmont Floodplaid d Parent Materia	Type asses (LRR N, RA 122, 136) In Soils (MLRA All (MLRA 127, 14) Ors of hydrophytic ve	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	r Problem Muck (MLRA Prairie Redox t Floodplain Shallow Dain in Rema	loam loam loam atic Soils (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface arks)	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Da S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer	Bottom Depth 4 16 Soil Field In bedon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox E F7 - Deplete	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox of Matrix Jurface Jurface Jurface Gleyed Matrix Jurface Gleyed Matrix Jurface Jurk Surface Jurk	% present ark Surface (MLRA 147, 148 :rix ce face s	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Simulation Mottles % Manganese Mabric Surface (ML) dmont Floodplaid d Parent Materia	Type asses (LRR N, RA 122, 136) In Soils (MLRA All (MLRA 127, 14) Ors of hydrophytic ve	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	r Problem Muck (MLRA Prairie Redox t Floodplain Shallow Dain in Rema	loam loam loam atic Soils (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface arks)	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A11 - Depleted A12 - Thick Da S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer (If Observed)	Bottom Depth 4 16 Soil Field In bedon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox E F7 - Deplete	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface ue Below Dark Surface d Matrix urface d Matrix Dark Surface d	% present ark Surface (MLRA 147, 148 :rix ce face s	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Simulation Mottles % Manganese Mabric Surface (ML) dmont Floodplaid d Parent Materia	Type asses (LRR N, RA 122, 136) In Soils (MLRA All (MLRA 127, 14) Ors of hydrophytic ve	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	r Problem Muck (MLRA Prairie Redox t Floodplain Shallow Dain in Rema	loam loam loam atic Soils (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface arks)	
SOILS Map Unit Name Taxonomy (Sult Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A11 - Depleted A12 - Thick Da S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer (If Observed)	Bottom Depth 4 16 Soil Field In bedon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox E F7 - Deplete	ence of indicators Matrix Moist) 4/4 6/8 rs are not Redox d Matrix urface ue Below Dark Surface d Matrix urface d Matrix Dark Surface d	% present ark Surface (MLRA 147, 148 :rix ce face s	entration, D=De	F12 - Iror F19 - Pie	ix, CS=Covered/Coated Simulation Mottles % Manganese Mabric Surface (ML) dmont Floodplaid d Parent Materia	Type asses (LRR N, RA 122, 136) In Soils (MLRA All (MLRA 127, 14) Ors of hydrophytic ve	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	r Problem Muck (MLRA Prairie Redox t Floodplain Shallow Dain in Rema	loam loam loam atic Soils (MLRA 147, 148) Soils (MLRA 136, 147) ark Surface arks)	



Project/Site:	Lemaster - Lick 138 kV Transmission Line Relocati	ion			Wetland ID: Wetland 3 Sample Point SP-6
VEGETATION	(Species identified in all uppercase are non-native s	species.)			
Tree Stratum (Plo	t size: 30 ft radius)			<u> </u>	Deminance Test Werkshoot
_	Species Name	% Cover Dom		Status	Dominance Test Worksheet
1. 2.	Liriodendron tulipifera Quercus rubra	5 5		ACU ACU	Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)
3.	Prunus serotina			ACU	Number of Dominant Species that are OBL, FACW, or FAC:(A)
4.					Total Number of Dominant Species Across All Strata: 5 (B)
5.					· · ·
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
7.					(AB)
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. $0 x 1 = 0$
	Total Cover =	15			FACW spp. $0 x 2 = 0$
					FAC spp. $0 x 3 = 0$
20					FACU spp. 110 $x 4 = 440$
1.	Rhus glabra	60		JPL	UPL spp. $\frac{60}{}$ $x = \frac{300}{}$
2.	Rubus allegheniensis	10	N FA	ACU	
3.					Total 170 (A) 740 (B)
4.					
5.					Prevalence Index = B/A = 4.353
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes □ ☑ No Rapid Test for Hydrophytic Vegetation
10.	Total Cover	70			Yes □ ☑ No Dominance Test is > 50%
	Total Cover =	70			Yes □ ☑ No Prevalence Index is ≤ 3.0 *
Lie i Oteri er (Die					Yes □ ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	Polystichum acrostichoides	70	Y FA	ACU	Yes □ ☑ No Problem Hydrophytic Vegetation (Explain) *
1. 2.				ACU	* Indicators of hydric soil and wetland hydrology must be
3.	Rubus allegheniensis Andropogon virginicus			ACU	present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					Definitions of Vegetation Otrata.
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.					ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size,
13.					and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	85			
Woody Vine Stratu	ım (Plot size: 30 ft radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present □ Yes ☑ No
4.					
5.					
Daniel	Total Cover =	0			
Remarks:					
Additional Ren	narks:				



Project/Site: Applicant: Investigator #1:	American E	ick 138 kV Transmission Electric Power Ison	n Line Reloca		tigator #2:		tec Project #:	193704783		Date: County: State:	02/10/17 Athens Ohio
Soil Unit:		pam, 0 to 3 percent slop	es, frequently				Classification	: NA		Wetland ID:	Wetland 4
Landform:	Floodplain			Lo	cal Relief:					Sample Point:	
Slope (%):			39.378502		_ongitude:					Community ID	: PEM
		itions on the site typi			ear? (If no, e				No sent?	Section:	
•		or Hydrology □ signi or Hydrology □ natu	•			All	e normal circo	•		Township: Range:	Dir:
SUMMARY OF		or rigarology — riata	rany problem	natio i			_ 100	_ 110		range.	J
Hydrophytic Ve		sent?		☑ Ye:	s 🗆 No			Hydric Soils	Present?		
Wetland Hydro	logy Present	?		✓ Yes	s 🗆 No			Is This Samp	oling Point V	Vithin A Wetl	and? Yes ■ No
Remarks:											
HVDDOL OOV											
HYDROLOGY		(0)				_					
Wetland Hydr	• •	tors (Check here if	indicators a	re not pre	esent):				Secondary: □	B6 - Surface So	oil Cracks
	<u>v.</u> A1 - Surface	Water			B9 - Wate	er-Stained	Leaves				egetated Concave Surface
☑	A2 - High Wa				B13 - Aqu					B10 - Drainage	
	A3 - Saturation				B14 - True C1 - Hydr					B16 - Moss Trii	m Lines on Water Table
	B2 - Sedime						ospheres on Livi	ing Roots		C8 - Crayfish B	
	B3 - Drift De				C4 - Pres	ence of R	educed Iron				Visible on Aerial Imagery
	B4 - Algal Ma B5 - Iron Der				C6 - Rece		eduction in Tilled	d Soils		D1 - Stunted or D2 - Geomorph	r Stressed Plants
		on Visible on Aerial Ima	gery		Other (Ex					D3 - Shallow A	
		·	0 ,		,	•	,			D4 - Microtopo	graphic Relief
										D5 - FAC-Neut	ral Test
Field Observat					(1)						
Surface Water		☐ Yes ☑ No	Depth:		(in.)			Wetland Hy	drology Pre	esent? □	Yes □ No
Water Table Pr		☑ Yes □ No ☑ Yes □ No	Depth: Depth:		(in.) (in.)						
			•		. ,) if a == i a a a		NI/A		
	ied Data (Stre	eam gauge, monitoring	g well, aerial	pnotos, p	revious ins	pections), if available:		N/A		
Remarks:											
SOILS											
SOILS Map Unit Name	e: Chagrin sil	t loam, 0 to 3 percen	t slopes, fre	equently f	looded S	Series Di	rainage Class	: N/A			
Map Unit Name Taxonomy (Sub	ogroup):	t loam, 0 to 3 percen									
Map Unit Name Taxonomy (Sub Profile Descrip	ogroup):	t loam, 0 to 3 percen							and Grains; Location:	PL=Pore Lining, M=Matr	
Map Unit Name Taxonomy (Sub Profile Descrip Top	ogroup): otion (Describe to the Bottom)	ne depth needed to document the indica	ator or confirm the abs	ence of indicators Matrix	s.) (Type: C=Conc	entration, D=De	pletion, RM=Reduced Mat	trix, CS=Covered/Coated S Mottles			Texture
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth	ogroup): otion (Describe to the		ator or confirm the abs	ence of indicators Matrix Moist)	s.) (Type: C=Conce	entration, D=De		trix, CS=Covered/Coated S	and Grains; Location:	PL=Pore Lining, M=Matr	Texture (e.g. clay, sand, loam)
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	ogroup): otion (Describe to the solution) Bottom Depth 4	ne depth needed to document the indica	ator or confirm the abs Color (10YR	ence of indicators Matrix Moist) 3/1	% 100	entration, D=De	pletion, RM=Reduced Mat	trix, CS=Covered/Coated S Mottles %	Type 	Location 	Texture (e.g. clay, sand, loam) silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	ogroup): Describe to the solution (Describe to the solution) Bottom Depth 4 16	ne depth needed to document the indicate Horizon	Color (10YR 10YR	ence of indicators Matrix Moist)	% 100 90	entration, D=De	lor (Moist) 4/4	trix, CS=Covered/Coated S Mottles % 10	Type C	Location PL	Texture (e.g. clay, sand, loam)
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 3/1 4/1	% 100 90	centration, D=De	lor (Moist) 4/4	trix, CS=Covered/Coated S Mottles % 10	Type C	Location PL 	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 3/1 4/1	% 100 90	Col	lor (Moist) 4/4	trix, CS=Covered/Coated S Mottles % 10	Type C	Location PL	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 3/1 4/1	% 100 90	Col 5YR	lor (Moist) 4/4	mottles Mottles % 10	Type C	Location PL	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	Depth A 16 Deproup): Bottom Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 3/1 4/1	% 100 90	Col 5YR	lor (Moist) 4/4	mottles Mottles % 10	Type C	Location PL	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	Depth 4 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 3/1 4/1	% 100 90	Col 5YR	lor (Moist) 4/4	mottles Mottles % 10	Type C	Location PL	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	Depth A 16	Horizon	Color (10YR 10YR	ence of indicators Matrix Moist) 3/1 4/1	% 100 90	entration, D=De	lor (Moist) 4/4	trix, CS=Covered/Coated S Mottles % 10	Type C	Location PL	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol	Bottom Depth 4 16 Soil Field In	Horizon	Color (10YR 10YR e if indicator	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox	% 100 90	Col 5YR	lor (Moist) 4/4	mottles Mottles % 10 on-Manganese M	Type C asses (LRR N,□	Location PL Indicators fo	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip	Bottom Depth 4 16 Soil Field In	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix	% 100 90	entration, D=De	Pletion, RM=Reduced Mate	trix, CS=Covered/Coated S Mottles % 10 on-Manganese M mbric Surface (ML	Type C	Location PL Indicators fo A10 - 2cm N A16 - Coast R	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi	Bottom Depth 4 16 Soil Field In	Horizon dicators (check here	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix durface	% 100 90 t present	Col 5YR):	F12 - Iro	mottles Mottles % 10 on-Manganese M	Type C lasses (LRR N,□ RA 122, 136) □ in Soils (MLRA□	Location PL Indicators fo A10 - 2cm M A16 - Coast R F19 - Piedmon	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen	Bottom Depth 4 16 Soil Field In edon C Sulfide	Horizon	color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below D	% 100 90 t present	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10 on-Manganese M mbric Surface (ML) edmont Floodpla	Type C	Location PL Indicators fo A10 - 2cm N A16 - Coast R F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers	Horizon dicators (check here	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below Dark Surface	% 100 90 t present	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	trix, CS=Covered/Coated S Mottles % 10 on-Manganese M mbric Surface (ML	Type C	Location PL Indicators fo A10 - 2cm N A16 - Coast R F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Su	Horizon	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below Dark Surface dik Surface Gleyed Madd Matirx	% 100 90 t present Oark Surface (MLRA 147, 148) trix	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10 on-Manganese M mbric Surface (ML) edmont Floodpla	Type C	Location PL Indicators fo A10 - 2cm N A16 - Coast R F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dat	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface	Horizon	e if indicator S5 - Sandy FS6 - Stripped S7 - Dark St S8 - Polyvalu S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox [ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below Dark Surface dirk Surface	% 100 90 t present Park Surface (MLRA 147, 148) trix ce	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10 on-Manganese M mbric Surface (ML) edmont Floodpla	Type C	Location PL Indicators fo A10 - 2cm N A16 - Coast R F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surface ck Mineral (LRR N	Horizon	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below Dark Surface d Matrix urface d Matrix urface d Matrix Dark Surface d Matrix Dark Surface d Dark Surfa	% 100 90 t present Oark Surface (MLRA 147, 148 trix ce	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10	Type C lasses (LRR N,□ RA 122, 136) □ in Soils (MLRA□ □ al (MLRA 127, 14□	Location PL Indicators fo A10 - 2cm M A16 - Coast R F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surface ck Mineral (LRR N	Horizon dicators (check here	e if indicator S5 - Sandy FS6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete F7 - Deplete	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox of Matrix arface are Below Dark Surface down and Matrix arface ark Surface down and Matrix Dark Surface down and Ma	% 100 90 t present Oark Surface (MLRA 147, 148 trix ce	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10	Type C lasses (LRR N,□ RA 122, 136) □ in Soils (MLRA□ □ al (MLRA 127, 14□ ors of hydrophytic veg	Location PL Indicators fo A10 - 2cm M A16 - Coast N F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A11 - Depleted A12 - Thick Dat S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer (If Observed)	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	e if indicator S5 - Sandy FS6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete F7 - Deplete	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below Dark Surface d Matirx Dark Surface d Dark Surface Depression	% 100 90 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10	Type C lasses (LRR N,□ RA 122, 136) □ in Soils (MLRA□ □ al (MLRA 127, 14□ ors of hydrophytic veg	Location PL Indicators fo A10 - 2cm M A16 - Coast N F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	e if indicator S5 - Sandy FS6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below Dark Surface d Matirx Dark Surface d Dark Surface Depression	% 100 90 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10	Type C lasses (LRR N,□ RA 122, 136) □ in Soils (MLRA□ □ al (MLRA 127, 14□ ors of hydrophytic veg	Location PL Indicators fo A10 - 2cm M A16 - Coast N F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A11 - Depleted A12 - Thick Dat S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer (If Observed)	Bottom Depth 4 16 Soil Field In edon c Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	e if indicator S5 - Sandy FS6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete	ence of indicators Matrix Moist) 3/1 4/1 rs are not Redox d Matrix urface ue Below Dark Surface d Matirx Dark Surface d Dark Surface Depression	% 100 90 t present Oark Surface (MLRA 147, 148) trix ce rface	entration, D=De Col 5YR): □	F12 - Iro F13 - Un F19 - Pie	mottles Mottles % 10	Type C lasses (LRR N,□ RA 122, 136) □ in Soils (MLRA□ □ al (MLRA 127, 14□ ors of hydrophytic veg	Location PL Indicators fo A10 - 2cm M A16 - Coast N F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) silty clay loam silty clay loam



WETLAND DETERMINATION DATA FORM

Project/Site:	Lemaster - Lick 138 kV Transmission Line Re	ocation		Wetland ID: Wetland 4 Sample Point SP-7
V-0				
VEGETATION Tree Stretum (Ple	(Species identified in all uppercase are non-na	tive species.)		
Tree Stratum (Pid	ot size: 30 ft radius) Species Name	% Cover Dom	nant Ind.Status	Dominance Test Worksheet
1.			<u>nani</u> <u>mu.sialus</u>	Dominance rest worksneet
2.				Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
3.				(7 t)
4.				Total Number of Dominant Species Across All Strata: 2 (B)
5.				Percent of Dominant Species That Are OBL, FACW, or
6.				FAC: 100.0% (A/B)
7.				(, 42)
8.				Prevalence Index Worksheet
9.				Total % Cover of: Multiply by:
10.				OBL spp. 0
	Total Cove	er = 0		FACW spp. 80 \times $2 = 160$
				FAC spp.
Sapling/Shrub Stra	atum (Plot size: 15 ft radius)			FACU spp. 10 $x 4 = 40$
1.				UPL spp 10
2.				
3.				Total 100 (A) 250 (B)
4.				
5.				Prevalence Index = B/A = 2.500
6.				
7.				II. Land de Manadada de Partona
8.				Hydrophytic Vegetation Indicators:
9.				Yes □ □ No Rapid Test for Hydrophytic Vegetation
10.	Total Cov			Yes ☑ □ No Dominance Test is > 50%
	Total Cove	er = 0		Yes ☑ □ No Prevalence Index is ≤ 3.0 *
LL L Otari e (Dia				Yes □ □ No Morphological Adaptations (Explain) *
Herb Stratum (Plo		20	Y FACW	Yes □ □ No Problem Hydrophytic Vegetation (Explain) *
2.	Hydrocotyle bonariensis		Y FACW	* Indicators of hydric soil and wetland hydrology must be
3.	Poa palustris Ratibida pinnata		N UPL	present, unless disturbed or problematic.
4.	Rubus allegheniensis		N FACU	Definitions of Vegetation Strata:
5.	Urtica dioica		N FACU	Definitions of Vegetation Strata.
6	Monarda fistulosa		N UPL	Tree - Weath plants 2 in (7 Care) or many in diameter at broast
7.				Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.				
9.				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.				ft. tall.
11.				
12.				Herb - All herbaceous (non-woody) plants, regardless of size,
13.				and woody plants less than 3.28 ft. tall.
14.				
15.				Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cove	er = 100		
Woody Vine Strate	um (Plot size: 30 ft radius)			
1.				
2.				
3.				Hydrophytic Vegetation Present ☑ Yes ☐ No
4.				
5.				
	Total Cov	er = 0		
Remarks:				
Additional Rer	marks:			
Ī				



Project/Site:		ck 138 kV Transmissior	n Line Relocat	tion		Stant	ec Project #:	193704783		Date:	02/10/17
Applicant:		lectric Power								County:	Athens
Investigator #1:					igator #2:					State:	Ohio
Soil Unit:	_	oam, 0 to 3 percent slop	es, frequently				Classification:	NA		Wetland ID:	Wetland 4
Landform:	Side slope				cal Relief:					Sample Point:	
Slope (%):	2		39.378354		ongitude:				NAD83	Community ID:	UPL
•		itions on the site typi			ar? (If no, ex			☑ Yes □	No	Section:	
•		or Hydrology □ signi	•			Ar	e normal circu	-	sent?	Township:	
		r Hydrology □ natu	rally probler	natic?				□ No		Range:	Dir:
SUMMARY OF											
Hydrophytic Ve	•			□ Yes				Hydric Soils			□ Yes ☑ No
Wetland Hydrol	ogy Present?			□ Yes	s ☑ No			Is This Samp	oling Point \	Within A Wetla	and? ■ Yes ¤ No
Remarks:											
HYDROLOGY											
Wetland Hydro	ology Indica	tors (Check here if i	indicators a	re not pre	sent):	V			Secondary:		
Primary	•		aroatoro a	. oo. p. o	,.	_				B6 - Surface So	oil Cracks
	A1 - Surface	Water			B9 - Wate	r-Stained	Leaves			B8 - Sparsely Ve	egetated Concave Surface
	A2 - High Wa				B13 - Aqu					B10 - Drainage	Patterns
	A3 - Saturation				B14 - True					B16 - Moss Trir	
	B1 - Water M				C1 - Hydro	•		na Booto		C2 - Dry Seaso	
	B2 - Sedimer B3 - Drift Dep	•					ospheres on Livir educed Iron	ig Roots		C8 - Crayfish B	Visible on Aerial Imagery
	B4 - Algal Ma						eduction in Tilled	Soils	_		Stressed Plants
	B5 - Iron Dep				C7 - Thin					D2 - Geomorph	ic Position
	B7 - Inundation	on Visible on Aerial Imaç	gery		Other (Ex	plain in Re	emarks)			D3 - Shallow Ad	
										D4 - Microtopo	
	_						1			D5 - FAC-Neuti	arrest
Field Observat	ions:										
Surface Water I	Present?	□ Yes ☑ No	Depth:		(in.)			Wetland Hyd	drology Pr	esent?	Yes ☑ No
Water Table Pro	esent?	□ Yes ☑ No	Depth:		(in.)			Wetland Hy	arology i i		103 = 140
Saturation Pres	ent?	□ Yes ☑ No	Depth:		(in.)						
Describe Record	ed Data (stre	am gauge, monitoring	well. aerial	photos, pi	revious ins	pections), if available:		N/A		
Remarks:	(222		, . ,	1 / 1			,,				
rtomanto.											
SOILS											
	Chagrin silt	loam, 0 to 3 percen	t slongs fra	auently fl	ooded 9	Carias Dr	ainage Class	N/A			
Taxonomy (Sub		loan, o to o percen	t slopes, ne	querity ii	ooded C	CHC3 DI	alliage Olass.	14/74			
	U 1/	e depth needed to document the indica	ator or confirm the abs	ence of indicators) (Type: C=Conce	entration D-De	pletion RM-Reduced Matri	iv CS-Covered/Coated Sa	and Grains: Location	· PL -Pore Lining M-Matr	iv)
Top	Bottom	e deput freeded to document the indica	ator or committee abs	Matrix	.) (Type. C=Conce	filiation, D=De	pletion, Rivi=Reduced Math	Mottles	and Grains, Location	. PL=Pole Lilling, M=Mail	Texture
Depth	Depth	Horizon	Color (%	Col	or (Moist)	%	Type	Location	(e.g. clay, sand, loam)
<u> </u>	10		10YR	5/2	100			/6 	Туре		, , ,
U											silty clay loam
NRCS Hydric	 Soil Field In	 	 e if indicator S5 - Sandy F	 rs are not Redox		 	 	 n-Manganese M	 asses (LRR N,C	 Indicators fo	r Problematic Soils ¹ Muck (MLRA 147)
NRCS Hydric A1- Histosol A2 - Histic Epipe	 Soil Field Inded	 dicators (check here	e if indicator S5 - Sandy F S6 - Stripped	 rs are not Redox d Matrix		 	 F12 - Iron	 n-Manganese Manbric Surface (MLR	 asses (LRR N, C	 Indicators fo A10 - 2cm N A16 - Coast F	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic	 Soil Field Inded	 dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su	 rs are not Redox d Matrix urface	 present): ☑	 F12 - Iror F13 - Um	 n-Manganese M	 asses (LRR N, C	 Indicators fo A10 - 2cm N A16 - Coast F	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S	 Soil Field Inded	 dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu	 rs are not Redox d Matrix urface ue Below D	 present): ☑	 F12 - Iror F13 - Um F19 - Pie	 n-Manganese Manbric Surface (MLR	 asses (LRR N,C RA 122, 136) C in Soils (MLRAC	 Indicators fo A10 - 2cm M A16 - Coast F F19 - Piedmon	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L	Soil Field Incomplete	 dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da	rs are not Redox d Matrix urface ue Below D ork Surface	 present ark Surface): ☑	 F12 - Iror F13 - Um F19 - Pie	 n-Manganese Manbric Surface (MLR	 asses (LRR N,C RA 122, 136) C in Soils (MLRAC	 Indicators fo A10 - 2cm M A16 - Coast F F19 - Piedmon	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S	Soil Field Inceedon CSulfide ayers Ek (LRR N)	 dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da	rs are not Redox d Matrix urface ue Below D ark Surface Gleyed Mat	 present ark Surface): ☑	 F12 - Iror F13 - Um F19 - Pie	 n-Manganese Manbric Surface (MLR	 asses (LRR N,C RA 122, 136) C in Soils (MLRAC	 Indicators fo A10 - 2cm M A16 - Coast F F19 - Piedmon	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc	Soil Field Income edon c Sulfide ayers ck (LRR N) Below Dark Su	 dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da	rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx	 present ark Surface): ☑	 F12 - Iror F13 - Um F19 - Pie	 n-Manganese Manbric Surface (MLR	 asses (LRR N,C RA 122, 136) C in Soils (MLRAC	 Indicators fo A10 - 2cm M A16 - Coast F F19 - Piedmon	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc	edon C Sulfide ayers k (LRR N) Below Dark Suk Surface k Mineral (LRR N	dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Deplete F6 - Redox E F7 - Deplete	rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx Dark Surfac d Dark Surfac	present ark Surface (MLRA 147, 148) crix ce face): ☑	 F12 - Iror F13 - Um F19 - Pie	 n-Manganese Manbric Surface (MLR	 asses (LRR N,C RA 122, 136) C in Soils (MLRAC	 Indicators fo A10 - 2cm M A16 - Coast F F19 - Piedmon	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley	edon C Sulfide ayers k (LRR N) Below Dark Suk Surface k Mineral (LRR N	dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox [rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx Dark Surfac d Dark Surfac	present ark Surface (MLRA 147, 148) crix ce face): ☑	 F12 - Iror F13 - Um F19 - Pie	n-Manganese Manbric Surface (MLR) edmont Floodplaid	 asses (LRR N,C RA 122, 136) C in Soils (MLRAC C Al (MLRA 127, 14C,	 Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer	Soil Field Income edon C Sulfide ayers ck (LRR N) Below Dark Su ck Surface ck Mineral (LRR N yed Matrix	dicators (check here dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Deplete F6 - Redox E F7 - Deplete	rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx Dark Surfac d Dark Sur	present ark Surface (MLRA 147, 148) crix ce face): ☑	 F12 - Iror F13 - Um F19 - Pie	n-Manganese Manbric Surface (MLR) edmont Floodplaid	asses (LRR N,C RA 122, 136) C in Soils (MLRAC Al (MLRA 127, 14C,	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer (If Observed)	edon C Sulfide ayers k (LRR N) Below Dark Suk Surface k Mineral (LRR N	dicators (check here dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Deplete F6 - Redox E F7 - Deplete	rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx Dark Surfac d Dark Surfac	present ark Surface (MLRA 147, 148) crix ce face s): ☑	 F12 - Iror F13 - Um F19 - Pie	n-Manganese Manbric Surface (MLR) edmont Floodplaid	asses (LRR N,C RA 122, 136) C in Soils (MLRAC Al (MLRA 127, 14C,	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer	Soil Field Income edon C Sulfide ayers ck (LRR N) Below Dark Su ck Surface ck Mineral (LRR N yed Matrix	dicators (check here dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Deplete F6 - Redox E F7 - Deplete	rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx Dark Surfac d Dark Sur	present ark Surface (MLRA 147, 148) crix ce face s): ☑	 F12 - Iror F13 - Um F19 - Pie	n-Manganese Manbric Surface (MLR) edmont Floodplaid	asses (LRR N,C RA 122, 136) C in Soils (MLRAC Al (MLRA 127, 14C,	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer (If Observed)	Soil Field Income edon C Sulfide ayers ck (LRR N) Below Dark Su ck Surface ck Mineral (LRR N yed Matrix	dicators (check here dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Deplete F6 - Redox E F7 - Deplete	rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx Dark Surfac d Dark Sur	present ark Surface (MLRA 147, 148) crix ce face s): ☑	 F12 - Iror F13 - Um F19 - Pie	n-Manganese Manbric Surface (MLR) edmont Floodplaid	asses (LRR N,C RA 122, 136) C in Soils (MLRAC Al (MLRA 127, 14C,	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	
NRCS Hydric A1- Histosol A2 - Histic Epipe A3 - Black Histic A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dar S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer (If Observed)	Soil Field Income edon C Sulfide ayers ck (LRR N) Below Dark Su ck Surface ck Mineral (LRR N yed Matrix	dicators (check here dicators (check here	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy 0 F3 - Deplete F6 - Redox E F7 - Deplete	rs are not Redox d Matrix urface ue Below D urk Surface Gleyed Mat d Matirx Dark Surfac d Dark Sur	present ark Surface (MLRA 147, 148) crix ce face s): ☑	 F12 - Iror F13 - Um F19 - Pie	n-Manganese Manbric Surface (MLR) edmont Floodplaid	asses (LRR N,C RA 122, 136) C in Soils (MLRAC Al (MLRA 127, 14C,	Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	



Project/Site:	Lemaster - Lick 138 kV Transmission Line Relocation	on			Wetland ID: Wetland 4 Sample Point SP-8
VEGETATION	(Species identified in all uppercase are non-native s	pecies.)			
Tree Stratum (Plo	t size: 30 ft radius)				T
	Species Name	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.	Acer rubrum	25	Υ	FAC	
2.	Fagus grandifolia	15	Υ	FACU	Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 10 (B)
5.					Percent of Dominant Species That Are OBL, FACW, or
6.					FAC: 30.0% (A/B)
7.					(772)
8.					Prevalence Index Worksheet
9.					
					Total % Cover of: Multiply by:
10.	Total Cavar	40			OBL spp. $0 \times 1 = 0$
	Total Cover =	40			FACW spp. 5 x 2 = 10
					FAC spp. $30 x 3 = 90$
Sapling/Shrub Stra	atum (Plot size: 15 ft radius)				FACU spp. 40 $x 4 = 160$
1.	Aesculus flava	5	Y	FACU	UPL spp. $\underline{\qquad}$ $X 5 = \underline{\qquad}$ $\underline{\qquad}$ 25
2.	Cornus florida	5	Y	FACU	
3.	Rosa multiflora	5	Υ	FACU	Total <u>80</u> (A) <u>285</u> (B)
4.	Juglans nigra	5	Υ	FACU	
5.					Prevalence Index = B/A = 3.563
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes □ ☑ No Rapid Test for Hydrophytic Vegetation
10.					Yes □ ☑ No Dominance Test is > 50%
101	Total Cover =	20			Yes □ ☑ No Prevalence Index is ≤ 3.0 *
	10101 00001 =	20			
Llamb Ctrature (Dla	toine. Eft redice)				
Herb Stratum (Plo		<u> </u>	Υ	EAC\A/	Yes □ ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Symphyotrichum lanceolatum	5		FACW	* Indicators of hydric soil and wetland hydrology must be
2.	Verbesina alternifolia	5	Y	FAC	present, unless disturbed or problematic.
3.	Rosa multiflora	5	Y	UPL	
4.	Ageratina altissima	5	Υ	FACU	Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.					ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size,
13.					and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
10.	Total Cover =	20		_ -	**************************************
	rotal Cover =	20			
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(District CO from 21 c)				
vvoody Vine Stratu	ım (Plot size: 30 ft radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present □ Yes ☑ No
4.					
5.					
	Total Cover =	0			
Remarks:					
Additional Ren	narke:				
Auditional Ref	iiai N3.				



Project/Site: Applicant: Investigator #1:	American E	k 138 kV Transmission Electric Power Ison	Line Relocation	-	tigator #2:		tec Project #:	193704783		Date: County: State:	02/10/17 Athens Ohio
Soil Unit:		pam, 0 to 3 percent slop	es, frequently				Classification	: NA		Wetland ID:	NA
Landform:	Floodplain				cal Relief:	Concav	e			Sample Point:	SP-9
Slope (%):	0		39.385888		ongitude:					Community ID:	: UPL
		itions on the site typi			ear? (If no, e					Section:	
•		or Hydrology □ signi or Hydrology □ natu	•			Ar	e normai circi ✓ Yes	ımstances pre s □ No		Township:	Dir:
SUMMARY OF		or rigurology in riatu	rally proble	nauc:			E TES	5 ¹ 110		Range:	ЫI.
Hydrophytic Ve		sent?		☑ Ye:	s 🗆 No			Hydric Soils I	Present?		□ Yes ☑ No
Wetland Hydrol	•			□ Ye				Is This Samp		Vithin A Wetla	
Remarks:											
HYDROLOGY											
		tors (Check here if	indicators a	re not pre	esent):	V			Secondary:		
<u>Primary</u> □	<u>y:</u> A1 - Surface	Water			B9 - Wate	r-Stained	Leaves			B6 - Surface So	oil Cracks egetated Concave Surface
	A2 - High Wa				B13 - Aqu					B10 - Drainage	
	A3 - Saturati				B14 - True					B16 - Moss Trir	m Lines
	B1 - Water M B2 - Sedime				C1 - Hydr		ide Odor Ospheres on Livi	na Roots		C2 - Dry Seaso C8 - Crayfish B	
	B3 - Drift De	•					educed Iron	ng reous		•	Visible on Aerial Imagery
	B4 - Algal Ma						eduction in Tilled	l Soils			Stressed Plants
	B5 - Iron Dep	oosits on Visible on Aerial Ima	gery		C7 - Thin Other (Ex					D2 - Geomorph D3 - Shallow Ad	
	Di - manaan	on visible on Achai ima	gory		Other (EX	piairiirik	Smarks)			D4 - Microtopog	
										D5 - FAC-Neut	ral Test
Field Observat	tions:										
Surface Water		□ Yes ☑ No	Depth:		(in.)			Wetland Hyd	drology Pre	esent?	Yes ☑ No
Water Table Pr		□ Yes ☑ No	Depth:		(in.)				0.0 97		
Saturation Pres	sent?	□ Yes ☑ No	Depth:		(in.)						
	ded Data (stre	am gauge, monitoring	g well, aerial	photos, p	revious ins	pections), if available:		N/A		
Remarks:											
0011.0											
SOILS Man Unit Name	o. Chagrin eil	loam, 0 to 3 percen	at clones fro	auently f	looded S	Sarias Di	rainage Class	· NI/A			
Taxonomy (Sub		libarri, o to o perceri	it siopes, ire	quently i	looded C	Delles Di	alliage Class	. 11//			
		ne denth needed to document the indic-					<u> </u>				
Top		ie depuit needed to document the indica	ator or confirm the abs	ence of indicators	s.) (Type: C=Conce	entration, D=De	_	rix, CS=Covered/Coated Sa	and Grains; Location:	PL=Pore Lining, M=Matr	rix)
1 0 0	Bottom	is deput freeded to document the indica	ator or confirm the abs	ence of indicators Matrix	s.) (Type: C=Conce	entration, D=De	_	rix, CS=Covered/Coated Sa	and Grains; Location:	PL=Pore Lining, M=Matr	Texture
Depth	Bottom Depth	Horizon	ator or confirm the abs	Matrix	s.) (Type: C=Conce		_		and Grains; Location:	PL=Pore Lining, M=Matr	
•				Matrix	_		pletion, RM=Reduced Mat	Mottles			Texture
Depth	Depth	Horizon	Color (Matrix	%	Col	pletion, RM=Reduced Mat	Mottles %	Туре	Location	Texture (e.g. clay, sand, loam)
Depth 	Depth 	Horizon 	Color (Matrix Moist)	%	Col	pletion, RM=Reduced Mat	Mottles % 	Type 	Location 	Texture (e.g. clay, sand, loam) loam
Depth 	Depth 	Horizon 	Color (Matrix Moist) 	% 	Col	or (Moist)	Mottles % 	Type 	Location 	Texture (e.g. clay, sand, loam) loam loam
Depth	Depth	Horizon	Color (Matrix Moist) 	% 	 	or (Moist)	Mottles	Type 	Location 	Texture (e.g. clay, sand, loam) loam loam
Depth	Depth	Horizon 	Color (Matrix Moist)	% 	 	or (Moist)	Mottles	Type 	Location	Texture (e.g. clay, sand, loam) loam loam
Depth	Depth	Horizon	Color (Matrix Moist)	% 	 	or (Moist)	Mottles %	Type	Location	Texture (e.g. clay, sand, loam) loam loam
Depth	Depth	Horizon		Matrix Moist)	%	 	or (Moist)	Mottles	Type	Location	Texture (e.g. clay, sand, loam) loam loam
Depth NRCS Hydric	Depth	Horizon dicators (check her	Color (Matrix Moist) rs are not	%	 	or (Moist)	Mottles %	Type	Location Indicators fo	Texture (e.g. clay, sand, loam) loam loam
Depth NRCS Hydric A1- Histosol	Depth	Horizon		Matrix Moist) rs are not	%	 	or (Moist)	Mottles %	Type	Location Indicators fo	Texture (e.g. clay, sand, loam) loam loam
Depth NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi	Depth Soil Field In	Horizon dicators (check her	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St	Matrix Moist) rs are not Redox d Matrix urface	% t present	Col): ☑	or (Moist)	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F	Texture (e.g. clay, sand, loam) loam loam
Depth NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen	Depth Soil Field In Dedon ic Sulfide	Horizon dicators (check her	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt	Matrix Moist) rs are not Redox d Matrix urface ue Below D	% t present	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) loam loam
Depth NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen S A5 - Stratified L	Depth Soil Field In Dedon ic Sulfide Layers	Horizon dicators (check her	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalu S9 - Thin Da	Matrix Moist) rs are not Redox di Matrix urface ue Below Dark Surface	% t present	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) loam loam
Depth NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N)	Horizon dicators (check her	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt	Matrix Moist) rs are not Redox d Matrix urface ue Below D irk Surface Gleyed Ma	% t present	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) loam loam
Depth	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N) Below Dark Surk Surface	Horizon dicators (check her	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalu S9 - Thin Da F2 - Loamy F F3 - Deplete F6 - Redox F	Matrix Moist)	% t present Park Surface (MLRA 147, 148) trix ce	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) loam loam
Depth	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete	Matrix Moist) rs are not Redox d Matrix urface ue Below D urk Surface d Matirx Dark Surfa d Dark Surfa	% t present Oark Surface (MLRA 147, 148) trix ce fface	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) loam loam r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) at Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks)
Depth	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N) Below Dark Surk Surface Ck Mineral (LRR N) Eyed Matrix	Horizon	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalu S9 - Thin Da F2 - Loamy F F3 - Deplete F6 - Redox F	Matrix Moist) rs are note Redox d Matrix urface ue Below Durk Surface dleyed Matdirx Dark Surface d Dark Surface Depression	% t present Park Surface (MLRA 147, 148) trix ce rface	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) loam loam r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148) at Floodplain Soils (MLRA 136, 147) Shallow Dark Surface ain in Remarks) drology must be present, unless disturbed or problematic.
Depth	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete	Matrix Moist) rs are not Redox d Matrix urface ue Below D urk Surface d Matirx Dark Surfa d Dark Surfa	% t present Oark Surface (MLRA 147, 148) trix ce fface	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) loam loam r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148)
Depth	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N) Below Dark Surk Surface Ck Mineral (LRR N) Eyed Matrix	Horizon	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete	Matrix Moist) rs are note Redox d Matrix urface ue Below Durk Surface dleyed Matdirx Dark Surface d Dark Surface Depression	% t present Park Surface (MLRA 147, 148) trix ce rface	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) loam loam r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148)
Depth	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N) Below Dark Surk Surface Ck Mineral (LRR N) Eyed Matrix	Horizon	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete	Matrix Moist) rs are note Redox d Matrix urface ue Below Durk Surface dleyed Matdirx Dark Surface d Dark Surface Depression	% t present Park Surface (MLRA 147, 148) trix ce rface	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) loam loam r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148)
Depth	Depth Soil Field In Dedon ic Sulfide Layers Ck (LRR N) Below Dark Surk Surface Ck Mineral (LRR N) Eyed Matrix	Horizon	Color (e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F3 - Deplete F6 - Redox F7 - Deplete	Matrix Moist) rs are note Redox d Matrix urface ue Below Durk Surface dleyed Matdirx Dark Surface d Dark Surface Depression	% t present Park Surface (MLRA 147, 148) trix ce rface	Col	Pletion, RM=Reduced Mate	Mottles %	Type	Location Indicators fo A10 - 2cm N A16 - Coast F F19 - Piedmon TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) loam loam r Problematic Soils Muck (MLRA 147) Prairie Redox (MLRA 147, 148)



	Project/Site:	Lemaster-Lick 138 kV Transmission Line Relocati	on Project		Wetland ID: NA Sample Point SP-9
Time Structure (Pet toker 30 trackers)	_				
Dominance Test Workshoot Common C			species.)		
1.	Tree Stratum (Plo	·			Deminerac Test Meylobest
2	4				Dominance Test Worksheet
3.					Number of Deminent Species that are OPL EACW or EAC:
4					Number of Dominant Species that are OBL, FACVV, of FAC(A)
Percent of Dominant Spaces That Are OBL, FACK, or RAC					Total Number of Deminant Species Across All Strate: 3 (B)
6					
7.					
8.					(A/B)
9					Prevalence Index Worksheet
10					
Total Cover					
Sapling/Shnub Stratum (Plot size: 15 ft radius)		Total Cover =	= 0		
SapingsPhus Bratum (Plot size: 15 ft radius) FACU FACW FA					FAC spp. $\frac{20}{20}$ $\times 3 = \frac{60}{60}$
2. Rhus glabra 15 Y UPL 3. Sambucus nigra 5 N FAC 4	Sapling/Shrub Stra	atum (Plot size: 15 ft radius)			
2. Rhus glabra 15 Y UPL 3. Sambucus nigra 5 N FAC 4	1.				
4,					
S		Sambucus nigra	5 N	FAC	Total 115 (A) 330 (B)
6					
7					Prevalence Index = B/A = 2.870
B.					
9					Hedronbedia Vanetation Indicators
10					
Total Cover = 30		_ 			
Herb Stratum (Plot size: 5 ft radius)	10.				
Herb Stratum (Plot size: 5 ft radius) 1. Rubus allegheniensis 5 N FACU 2. Phalaris arundinacea 5 N FACU 3. Monarda fistulosa 5 N FACU 4. Elymus riparius 5 N FACU 5. Verbesina alternifolia 5 N FACU 6 Lonicera japonica 10 N FAC 7. Allium canadense 5 N FACU 8		Total Cover =	30		
1. Rubus allegheniensis	Llauk Ctuatius (Dla	toine. Ett medium			
2. Phalaris arundinacea 3. Monarda fistulosa 3. Monarda fistulosa 5. N FACW 4. Elymus iparius 5. Verbesina alternifolia 5. N FAC 6. Lonicera japonica 10. N FAC 7. Allium canadense 5. N FACU 8	Herb Stratum (Plo	·	5 N	EACH.	Yes U No Problem Hydrophytic Vegetation (Explain) ^
3. Monarda fistulosa 4. Elymus riparius 50 Y FACW 5. Verbesina alternifolia 5 N FAC 6 Lonicera japonica 10 N FAC 7. Allium canadense 5 N FACU 8 9 11 15 Total Cover = 85 Woody Vine Stratum (Plot size: 30 ft radius) 1 2 3 1 1 2 3 1 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 3 4 5 7. Allium canadense 5 N FACU N FACU Tree - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall. Woody Vines - All woody plants less than 3.28 ft. tall. Woody Vines - All woody vines greater than 3.28 ft. in height. Woody Vines - All woody vines greater than 3.28 ft. in height. Hydrophytic Vegetation Present □ Yes □ No Remarks:	2				* Indicators of hydric soil and wetland hydrology must be
4. Elymus riparius 5. Verbesina alternilolia 5. N FAC 6 Lonicera japonica 10 N FAC 7. Allium canadense 5 N FACU 8					present, unless disturbed or problematic.
5.					Definitions of Vegetation Strata:
6 Lonicera japonica 10 N FAC 7. Allium canadense 5 N FACU 8 9 11 12 13 14 15 Total Cover = 85 Woody Vine Stratum (Plot size: 30 ft radius) 1					
7.					Tree - Woody plants 3 in (7.6cm) or more in diameter at breast
8					height (DBH), regardless of height.
9					
10					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
11					ft. tall.
13					
13					
14 15					and woody plants less than 3.28 ft. tall.
15					1
Woody Vine Stratum (Plot size: 30 ft radius)	15.	<u></u>			Woody Vines - All woody vines greater than 3.28 ft. in height.
1		Total Cover =	85		
1					
2	Woody Vine Stratu	um (Plot size: 30 ft radius)			
3	1.	·			
4					
5					Hydrophytic Vegetation Present ☑ Yes □ No
Total Cover = 0 Remarks:		_ 			
Remarks:	5.				
		Total Cover =	= 0		
Additional Remarks:	Remarks:				
Additional Remarks:					
Additional Remarks:					
	Additional Rer	narks:			



Project/Site: Applicant: Investigator #1:	American I	ck 138 kV Transmission Electric Power	Line Relocation	•	tigator #2:		tec Project #:	193704783		Date: County: State:	02/10/17 Athens Ohio
Soil Unit:		pam, 0 to 3 percent slop	es. frequently				Classification	: NA		Wetland ID:	NA
Landform:	Floodplain				cal Relief:					Sample Point:	SP-10
Slope (%):	0		39.383578		_ongitude:					Community ID	: UPL
		litions on the site typi			ear? (If no, e	1				Section:	
_		or Hydrology □ signi	•			Ar		ımstances pre		Township:	D:
SUMMARY OF		or Hydrology □ natui	rally probler	natic?			☑ Yes	s □ No		Range:	Dir:
Hydrophytic Ve		sent?		□ Ye	s ⊍ No			Hydric Soils	Present?		□ Yes ☑ No
Wetland Hydrol	•			☑ Ye:				Is This Samp		Vithin A Wetl	
Remarks:	29, 110000	-									
HYDROLOGY											
Wetland Hydro	ology Indica	ators (Check here if i	ndicators a	re not pre	esent):				Secondary:		
<u>Primary</u>		\\/		_	DO 14/-4-	Ota i				B6 - Surface S	
	A1 - Surface A2 - High Wa				B9 - Wate B13 - Aqu					B8 - Sparsely V B10 - Drainage	egetated Concave Surface
	A3 - Saturati				B14 - Tru					B16 - Moss Tri	
	B1 - Water N				C1 - Hydr			Б.,			on Water Table
	B2 - Sedime B3 - Drift De	•					ospheres on Livi educed Iron	ng Roots		C8 - Crayfish B	Burrows n Visible on Aerial Imagery
	B4 - Algal Ma						eduction in Tilled	d Soils			r Stressed Plants
	B5 - Iron De				C7 - Thin					D2 - Geomorph	
	B7 - Inundati	on Visible on Aerial Imaç	gery		Other (Ex	plain in R	emarks)			D3 - Shallow A D4 - Microtopo	
										D5 - FAC-Neut	
Field Observat	ions:										
Surface Water Water Table Prosaturation Pres	esent?	□ Yes ☑ No □ Yes ☑ No ☑ Yes □ No	Depth: Depth: Depth:		(in.) (in.) (in.)			Wetland Hyd	drology Pre	esent? ☑	Yes □ No
Describe Record	ed Data (stre	eam gauge, monitoring	well, aerial	photos, p	revious ins	pections), if available:		N/A		
Remarks:	·		· · · · · · · · · · · · · · · · · · ·				,				
SOILS											
		t loam, 0 to 3 percen	t slopes, fre	quently f	looded S	Series D	<u>rainage Class</u>	: N/A			
Taxonomy (Sub	 	he depth needed to document the indica			\ (T						
Top	Bottom	ne depth needed to document the indica	ator or confirm the abs	Matrix	s.) (Type: C=Conc	entration, D=De	pletion, RM=Reduced Mai	Mottles	and Grains; Location:	PL=Pore Lining, M=Mat	Texture
Depth	Depth	Horizon	Color (%	Co	lor (Moist)	%	Туре	Location	(e.g. clay, sand, loam)
0	8		10YR	3/2	100						fine sandy loam
8	16		10YR	3/2	90	10YR	5/6	10	С	M	fine sandy loam
NRCS Hydric □ A1- Histosol □ A2 - Histic Epipe □ A3 - Black Histic □ A4 - Hydrogen S □ A5 - Stratified L □ A10 - 2 cm Muc □ A11 - Depleted □ A12 - Thick Dar □ S1 - Sandy Muc □ S4 - Sandy Gley	edon C Sulfide ayers k (LRR N) Below Dark Su k Surface k Mineral (LRR N		e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox E F7 - Deplete F8 - Redox E	Redox d Matrix urface ue Below D rk Surface Gleyed Ma d Matirx Dark Surfa d Dark Su	Dark Surface (MLRA 147, 148 trix ce rface	•	☐ F13 - Ur ☐ F19 - Pid	on-Manganese Manbric Surface (MLF edmont Floodplained Parent Materia	RA 122, 136)	A10 - 2cm M A16 - Coast F19 - Piedmor TF12 - Very Other (Expla	or Problematic Soils 1 Muck (MLRA 147) Prairie Redox (MLRA 147, 148) Int Floodplain Soils (MLRA 136, 147) Y Shallow Dark Surface ain in Remarks)
Restrictive Layer	Type:			Depth:	N/A			Hydric Soil I			Yes ☑ No
(If Observed)	туре.	14/7		թեհա։	1 W/ /T\			Tryunic 3011	1636III!		163 - 110
Remarks:											



Project/Site:	Lemaster-Lick 138 kV Transmission Line Relocation	n Project		Wetland ID: NA Sample Point SP-10
VEGETATION	(Species identified in all uppercase are non-native	species.)		
Tree Stratum (Plo	t size: 30 ft radius)			Dancinguage Took Workshook
4	<u>Species Name</u>	% Cover Domi		Dominance Test Worksheet
1. 2.				Number of Deminent Species that are OPL EACW or EAC:
3.				Number of Dominant Species that are OBL, FACW, or FAC:1(A)
4.	 			Total Number of Dominant Species Across All Strata: 3 (B)
5.				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
7.				(/VB)
8.				Prevalence Index Worksheet
9.				Total % Cover of: Multiply by:
10.				OBL spp. 0 x 1 = 0
	Total Cover =	0		FACW spp. 75
				FAC spp. 10 $x 3 = 30$
20				FACU spp. 10 $x 4 = 40$
1.	Rhus glabra		Y UPL	UPL spp. 35 $x 5 = 175$
2.	Rubus allegheniensis	10	Y FACU	
3.				Total 130 (A) 395 (B)
4.				
5.				Prevalence Index = B/A = 3.038
6.				
7.				Hadrankada Wanatalian Indiantana
8.				Hydrophytic Vegetation Indicators:
9.	_ 			Yes □ ☑ No Rapid Test for Hydrophytic Vegetation
10.	Total Cover —			Yes □ ☑ No Dominance Test is > 50%
	Total Cover =	30		Yes □ ☑ No Prevalence Index is ≤ 3.0 *
Llank Otratina (Dia	toine. Eth medium)			Yes □ ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plot	·	10 I	N UPL	Yes □ ☑ No Problem Hydrophytic Vegetation (Explain) *
2.	Rhus glabra Poa palustris		Y FACW	* Indicators of hydric soil and wetland hydrology must be
3.	Platanus occidentalis		N FACW	The sent liness disturbed of problematic
4.	Verbesina alternifolia		N FAC	Definitions of Vegetation Strata:
5.	Monarda fistulosa		N UPL	
6				Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.				height (DBH), regardless of height.
8.				
9.				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.				ft. tall.
11.				
12.				Herb - All herbaceous (non-woody) plants, regardless of size,
13.				and woody plants less than 3.28 ft. tall.
14.				
15.				Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	100		
Woody Vine Stratu	ım (Plot size: 30 ft radius)			
1.				
2.				
3.				Hydrophytic Vegetation Present □ Yes ☑ No
4.				
5.	Total Cayor			
Dama autre	Total Cover =	0		
Remarks:				
	_			
Additional Ren	narks:			



Project/Site: Applicant: Investigator #1:	American E	k 138 kV Transmission Electric Power	Line Relocation	•	tigator #2:		ec Project #:	193704783		Date: County: State:	02/10/17 Athens Ohio
Soil Unit:		pam, 0 to 3 percent slop	es, frequently					: PSS1/EM1C		Wetland ID:	NA
Landform:	Floodplain	, o o po	y		cal Relief:					Sample Point:	
Slope (%):	0		39.385388		ongitude:				NAD83	Community ID	
		itions on the site typi			ear? (If no, e	1		☑ Yes □		Section:	
•		or Hydrology 🗆 signi	•			Are		ımstances pre		Township:	D :
SUMMARY OF		or Hydrology □ natu	rally probler	natic?			✓ Yes	s □ No		Range:	Dir:
Hydrophytic Ve		sent?		☑ Ye:	s 🗆 No			Hydric Soils	Present?		
Wetland Hydrol	•			□ Yes				Is This Samp		Vithin A Wetl	
Remarks:									<u> </u>		
HYDROLOGY											
Wetland Hydr	ology Indica	itors (Check here if	indicators a	re not pre	esent):	V			Secondary:		
<u>Primary</u>	<u>y:</u> A1 - Surface	Motor		_	B9 - Wate	r Ctainad	Laguag			B6 - Surface S	
	A1 - Surface A2 - High Wa				B13 - Aqu					во - Sparseiy v B10 - Drainage	egetated Concave Surface Patterns
	A3 - Saturati	on			B14 - Tru	e Aquatic	Plants			B16 - Moss Tri	m Lines
	B1 - Water M				C1 - Hydr			na Dooto			on Water Table
	B2 - Sedimer B3 - Drift De	•					spheres on Livi educed Iron	ng Roots		C8 - Crayfish B C9 - Saturation	ourrows Visible on Aerial Imagery
	B4 - Algal Ma	at or Crust					eduction in Tilled	l Soils			r Stressed Plants
	B5 - Iron Dep				C7 - Thin					D2 - Geomorph	
	B7 - Inundati	on Visible on Aerial Ima	gery		Other (Ex	piain in Re	emarks)			D3 - Shallow A D4 - Microtopo	
										D5 - FAC-Neut	
Field Observat	tions:										
Surface Water Water Table Pr		□ Yes ☑ No □ Yes ☑ No	Depth: Depth:		(in.) (in.)			Wetland Hyd	drology Pre	esent? 🗆	Yes ☑ No
Saturation Pres		□ Yes □ No	Depth:		(in.)						
Describe Record	led Data (stre	eam gauge, monitoring	r well aerial	nhotos n	· · ·	nections)	if available:		N/A		
Remarks:	dea Bata (Stre	am gaage, monitoring	y won, aonai	<u>priotos, p</u>	10000 1110	peotions	, ii availabio.		14// (
rtomanto.											
SOILS											
Map Unit Name	e: Chagrin sil	tloam Oto 3 percen	()								
		rioairi, o to 3 perceri	t slopes, fre	quently fl	looded S	Series Dr	ainage Class	: N/A			
Taxonomy (Sub											
Profile Descrip	otion (Describe to the	ne depth needed to document the indica		ence of indicators				rix, CS=Covered/Coated Sa	and Grains; Location:	PL=Pore Lining, M=Mat	
Profile Descrip	Dotion (Describe to the Bottom	ne depth needed to document the indica	ator or confirm the abs	ence of indicators Matrix	s.) (Type: C=Conc	entration, D=Dep	oletion, RM=Reduced Mat	rix, CS=Covered/Coated Sa	, , , , , , , , , , , , , , , , , , ,		Texture
Profile Descrip Top Depth	otion (Describe to the	ne depth needed to document the indica	ator or confirm the abs	ence of indicators Matrix Moist)	s.) (Type: C=Conc	entration, D=Dep		rix, CS=Covered/Coated Sa Mottles %	Туре	PL=Pore Lining, M=Mati	Texture (e.g. clay, sand, loam)
Profile Descrip Top Depth 0	Bottom Depth	ne depth needed to document the indicate Horizon	Color (ence of indicators Matrix Moist) 3/2	% 100	entration, D=Dep	oletion, RM=Reduced Mat Or (Moist)	rix, CS=Covered/Coated Sa Mottles %	Type 	Location 	Texture (e.g. clay, sand, loam) fine sandy loam
Profile Descrip Top Depth	Bottom Depth 4 8	ne depth needed to document the indicate Horizon	Color (10YR 10YR	ence of indicators Matrix Moist)	% 100 85	entration, D=Dep	or (Moist) 6/6	rix, CS=Covered/Coated Sa Mottles % 5	Type C	Location M	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam
Profile Descrip Top Depth 0	Bottom Depth	ne depth needed to document the indicate Horizon	Color (ence of indicators Matrix Moist) 3/2	% 100	entration, D=Dep	oletion, RM=Reduced Mat Or (Moist)	rix, CS=Covered/Coated Sa Mottles %	Type 	Location 	Texture (e.g. clay, sand, loam) fine sandy loam
Top Depth 0 4	Bottom Depth 4 8	Horizon	Color (10YR 10YR	Matrix Moist) 3/2 3/2	% 100 85	Col 10YR 7.5YR	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10	Type C C	Location M M	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4	Bottom Depth 4 8	Horizon	Color (10YR 10YR	Matrix Moist) 3/2 3/2	% 100 85	Col 10YR 7.5YR	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10	Type C C	Location M M	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4	Bottom Depth 4 8	Horizon	Color (10YR 10YR	Matrix Moist) 3/2 3/2	% 100 85	Col 10YR 7.5YR	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Sa Mottles % 5 10	Type C C	Location M M	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4	Bottom Depth 4 8	Horizon	Color (10YR 10YR	Matrix Moist) 3/2 3/2	% 100 85	Col 10YR 7.5YR	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10	Type C	Location M M	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4	Bottom Depth 4 8	Horizon	Color (10YR 10YR	Matrix Moist) 3/2 3/2	% 100 85	Col 10YR 7.5YR	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10	Type C	Location M M	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric	Bottom Depth 4 8 Soil Field In	Horizon	Color (10YR 10YR e if indicator	Matrix Moist) 3/2 3/2 rs are not	% 100 85	Col 10YR 7.5YR	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10 n-Manganese Ma	Type C C asses (LRR N,□	Location M M Indicators for A10 - 2cm N	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip	Bottom Depth 4 8 Soil Field In	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped	Matrix Moist) 3/2 3/2 rs are not Redox	% 100 85	Col 10YR 7.5YR	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10 n-Manganese Manbric Surface (MLR	Type C C asses (LRR N,□	Location M M Indicators for A10 - 2cm M A16 - Coast	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi	Bottom Depth 4 8 Soil Field In	Horizon dicators (check here	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St	Matrix Moist) 3/2 3/2 rs are not Redox Matrix Matrix urface	% 100 85 t present	Col 10YR 7.5YR): □	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10 n-Manganese Ma	Type C C asses (LRR N,□ RA 122, 136) □ in Soils (MLRA□	Location M M Indicators for A10 - 2cm M A16 - Coast I F19 - Piedmor	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip	Bottom Depth 4 8 Soil Field In	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt	Matrix Moist) 3/2 3/2 rs are not Redox d Matrix urface ue Below D	% 100 85 t present	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Sandric Surface (MLies) Mottles % 5 10 n-Manganese Manbric Surface (MLies)	Type C C asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc	Bottom Depth 4 8 Soil Field In bedon ic Sulfide Layers ck (LRR N)	Horizon dicators (check here	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G	Matrix Moist) 3/2 3/2 rs are not Redox d Matrix urface ue Below Dark Surface Gleyed Ma	% 100 85 t present	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	rix, CS=Covered/Coated Sa Mottles % 5 10 n-Manganese Manbric Surface (MLR	Type C C asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 4 8 Soil Field In bedon ic Sulfide ayers ck (LRR N) Below Dark Su	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy G F3 - Deplete	Matrix Moist) 3/2 3/2 rs are not Redox d Matrix urface ue Below Dark Surface Gleyed Mad Matirx	% 100 85 t present Park Surface (MLRA 147, 148	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Sandric Surface (MLies) Mottles % 5 10 n-Manganese Manbric Surface (MLies)	Type C C asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai	Bottom Depth 4 8 Soil Field In Dedon ic Sulfide Layers ck (LRR N) Below Dark Surk Surface	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy C F3 - Deplete F6 - Redox [Matrix Moist) 3/2 3/2	% 100 85 t present Park Surface (MLRA 147, 148 trix) Ce	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Sandric Surface (MLies) Mottles % 5 10 n-Manganese Manbric Surface (MLies)	Type C C asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	Bottom Depth 4 8 Soil Field In edon ic Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon	Color (10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy G F3 - Deplete	Matrix Moist) 3/2 3/2	% 100 85 t present Park Surface (MLRA 147, 148 trix Ce fface	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Sandrian Mottles Mottles	Type C C asses (LRR N, RA 122, 136) In Soils (MLRA In Soils	Location M M Indicators for A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai S1 - Sandy Muc	Bottom Depth 4 8 Soil Field In edon ic Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N	Horizon dicators (check here	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F F3 - Deplete F6 - Redox F F7 - Deplete	Matrix Moist) 3/2 3/2	% 100 85 t present Park Surface (MLRA 147, 148 trix Ce fface	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Sandrian Mottles Mottles	Type C C asses (LRR N, RA 122, 136)	Location M M Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen S A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai S1 - Sandy Muc S4 - Sandy Gley Restrictive Layer	Bottom Depth 4 8 Soil Field In bedon ic Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F F3 - Deplete F6 - Redox F F7 - Deplete	ence of indicators Matrix Moist) 3/2 3/2	% 100 85 t present Park Surface (MLRA 147, 148 trix Ce fface	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Size Mottles % 5 10	Type C C asses (LRR N, RA 122, 136)	Location M M Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai A12 - Thick Dai S1 - Sandy Muc S4 - Sandy Glee Restrictive Layer (If Observed)	Bottom Depth 4 8 Soil Field In bedon ic Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F F3 - Deplete F6 - Redox F F7 - Deplete	ence of indicators Matrix Moist) 3/2 3/2	% 100 85 t present Park Surface (MLRA 147, 148 trix Ce fface	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Size Mottles % 5 10	Type C C asses (LRR N, RA 122, 136)	Location M M Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam
Profile Descrip Top Depth 0 4 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai A12 - Thick Dai S1 - Sandy Muc S4 - Sandy Glee Restrictive Layer (If Observed)	Bottom Depth 4 8 Soil Field In bedon ic Sulfide ayers ck (LRR N) Below Dark Surk Surface ck Mineral (LRR N) yed Matrix	Horizon dicators (check here	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripper S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy F F3 - Deplete F6 - Redox F F7 - Deplete	ence of indicators Matrix Moist) 3/2 3/2	% 100 85 t present Park Surface (MLRA 147, 148 trix Ce fface	Col 10YR 7.5YR): (MLRA 147, 1	or (Moist) 6/6 5/6	mix, CS=Covered/Coated Size Mottles % 5 10	Type C C asses (LRR N, RA 122, 136)	Location M M Indicators fo A10 - 2cm N A16 - Coast I F19 - Piedmor TF12 - Very Other (Expla	Texture (e.g. clay, sand, loam) fine sandy loam fine sandy loam fine sandy loam



Project/Site:	Lemaster-Lick 138 kV Transmission Line Relocatio	n Project			Wetland ID: NA Sample Point SP-11
VEGETATION	(Species identified in all uppercase are non-native s	species.)			
Tree Stratum (Plo	ot size: 30 ft radius)				
	<u>Species Name</u>	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC:3 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:4 (B)
5.					Percent of Dominant Species That Are OBL, FACW, or
6.					FAC: 75.0% (A/B)
7.					` , ,
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp 0
	Total Cover =	0			FACW spp. 90 $\times 2 = 180$
		_			FAC spp. 60 \times $3 = 180$
20					FACU spp. 45
1.	Rubus allegheniensis	25	Υ	FACU	UPL spp. $\frac{45}{10}$ $\times 5 = \frac{100}{50}$
2.	Platanus occidentalis	20	Y	FACW	
3.	Rhus glabra	10	N .	FACU	Total 205 (A) 590 (B)
4.	Juglans nigra	5	N	FACU	(b)
5.					Prevalence Index = B/A = 2.878
6.					2.070
7.					
8.					Hydrophytic Vegetation Indicators:
					
9.					Yes □ ☑ No Rapid Test for Hydrophytic Vegetation
10.	Total Cavar				Yes ☑ □ No Dominance Test is > 50%
	Total Cover =	60			Yes □ ☑ No Prevalence Index is ≤ 3.0 *
					Yes □ ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	ot size: 5 ft radius)				Yes □ ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Elymus riparius	50	Υ	FACW	* Indicators of hydric soil and wetland hydrology must be
2.	Dichanthelium clandestinum	10	N	FAC	present, unless disturbed or problematic.
3.	Dipsacus fullonum	5	N	FACU	
4.	Daucus carota	5	N	UPL	Definitions of Vegetation Strata:
5.	Monarda fistulosa	5	N	UPL	
6	Solidago gigantea	5	N	FACW	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.	Poa palustris	5	N	FACW	height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
10.					ft. tall.
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size,
13.					and woody plants less than 3.28 ft. tall.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
10.	Total Cover =	85		_ _	Troony vinios - vinio
	Total Cover =	00			
Manada Villa Commission	(Diet siese, 20 ft see live)				
1	um (Plot size: 30 ft radius)	FO	\ <u>\</u>	EAC	
1.	Lonicera japonica	50	Y	FAC	
2.	Vitis riparia	10	N	FACW	
3.					Hydrophytic Vegetation Present ☑ Yes □ No
4.					
5.					
	Total Cover =	60			
Remarks:					
Additional Re	marks:				



Project/Site: Applicant: Investigator #1:	American E	k 138 kV Transmission Electric Power	Line Relocation	•	tigator #2:		ec Project #:	193704783		Date: County: State:	02/10/17 Athens Ohio
Soil Unit:		pam, 0 to 3 percent slop	es. frequently					: PSS1/EM1C		Wetland ID:	NA
Landform:	Floodplain	,	,		cal Relief:					Sample Point:	
Slope (%):	0		39.385877		ongitude:					Community ID): UPL
		itions on the site typi			ear? (If no, e					Section:	
_		or Hydrology □ signi	•			Are		umstances pre		Township:	D :
SUMMARY OF		or Hydrology □ natu	rally probler	natic?			✓ Yes	s □ No		Range:	Dir:
Hydrophytic Ve		ent?		□ Ye	s			Hydric Soils	Present?		
Wetland Hydro	_			□ Ye:				Is This Samp		Vithin A Wetl	
Remarks:									<u> </u>		
HYDROLOGY											
_	• •	tors (Check here if	indicators a	re not pre	esent):				Secondary:	DC Curfoss C	inil Cranko
<u>Primar</u> □	<u>y:</u> A1 - Surface	Water			B9 - Wate	er-Stained	Leaves			B6 - Surface S B8 - Sparsely V	egetated Concave Surface
V	A2 - High Wa				B13 - Aqu					B10 - Drainage	e Patterns
	A3 - Saturation				B14 - Tru C1 - Hydr					B16 - Moss Tri	im Lines on Water Table
	B2 - Sedime						ospheres on Livi	ng Roots		C8 - Crayfish E	
	B3 - Drift De _l	oosits			C4 - Pres	ence of R	educed Iron			C9 - Saturation	n Visible on Aerial Imagery
	B4 - Algal Ma						eduction in Tilled	d Soils			r Stressed Plants
	B5 - Iron Der B7 - Inundati	oosiis on Visible on Aerial Ima	aerv		C7 - Thin Other (Ex					D2 - Geomorpl D3 - Shallow A	
			97		· · · · · · · · · · · · · · · · · · ·		,			D4 - Microtopo	graphic Relief
	_									D5 - FAC-Neut	tral Test
Field Observa					<i>(</i> 1.)						
Surface Water		☐ Yes ☑ No	Depth:	_	(in.)			Wetland Hyd	drology Pre	esent? ☑	Yes □ No
Water Table Pres		☑ Yes □ No ☑ Yes □ No	Depth: Depth:	_	(in.) (in.)			_			
			·						N1/A		
	ded Data (stre	am gauge, monitoring	g well, aerial	pnotos, p	revious ins	pections), if available:		N/A		
Remarks:											
SOILS											
SOILS Map Unit Name	e: Chagrin sil	loam, 0 to 3 percen	t slopes, fre	guently f	looded S	Series Dr	ainage Class	: N/A			
Map Unit Name		loam, 0 to 3 percen	t slopes, fre	quently f	looded S	Series Dr	ainage Class	: N/A			
Map Unit Name Taxonomy (Sub	bgroup):						-		and Grains; Location:	PL=Pore Lining, M=Mat	trix)
Map Unit Name Taxonomy (Sub	bgroup):	to loam, 0 to 3 percent the indicate depth needed to document the indicate to document the indicate to the indicate the in					-		and Grains; Location:	PL=Pore Lining, M=Mat	trix) Texture
Map Unit Name Taxonomy (Sub Profile Descrip	bgroup): ption (Describe to the			ence of indicators Matrix		entration, D=Dep	-	trix, CS=Covered/Coated S	and Grains; Location:	PL=Pore Lining, M=Mat	
Map Unit Name Taxonomy (Sub Profile Descrip Top	bgroup): ption (Describe to the Bottom Depth 4	ne depth needed to document the indica	Color (ence of indicators Matrix Moist) 3/1	% 100	entration, D=Dep	oletion, RM=Reduced Mat	trix, CS=Covered/Coated Sa Mottles %	Type 		Texture (e.g. clay, sand, loam) silt
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	bgroup): ption (Describe to the Bottom Depth 4 6	ne depth needed to document the indica	Color (10YR 10YR	ence of indicators Matrix Moist) 3/1 3/1	% 100 95	entration, D=Dep	or (Moist) 5/6	mottles // Mottles // Mottles // Mottles	Type C	Location M	Texture (e.g. clay, sand, loam) silt silt
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0	bgroup): ption (Describe to the Bottom Depth 4	ne depth needed to document the indicate Horizon	Color (ence of indicators Matrix Moist) 3/1	% 100	Col 10YR 10YR	or (Moist) 5/6 5/6	mottles Mottles % 5 5	Type C C	Location M M	Texture (e.g. clay, sand, loam) silt
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4	bgroup): ption (Describe to the stripe of t	Horizon	Color (10YR 10YR 10YR	Matrix Moist) 3/1 3/1 3/1	% 100 95 90	Col 10YR 10YR 10YR	or (Moist) 5/6 5/6 5/1	mottles Mottles % 5 5 5	Type C C D	Location M M M	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6	bgroup): ption (Describe to the source of t	Horizon	Color (10YR 10YR 10YR	Matrix Moist) 3/1 3/1 3/1	% 100 95 90	Col 10YR 10YR 10YR	or (Moist) 5/6 5/6 5/1	mottles Mottles % 5 5 5	Type C C D	Location M M M	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6	bgroup): ption (Describe to the source of t	Horizon	Color (10YR 10YR 10YR	Matrix Moist) 3/1 3/1 3/1	% 100 95 90	Col 10YR 10YR 10YR	or (Moist) 5/6 5/6 5/1	mottles Mottles % 5 5 5	Type C C D	Location M M M	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6	bgroup): ption (Describe to the source of t	Horizon	Color (10YR 10YR 10YR	Matrix Moist) 3/1 3/1 3/1	% 100 95 90	Col 10YR 10YR 10YR	or (Moist) 5/6 5/6 5/1	Mottles Mottles 5 5 5	Type C C D	Location M M	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6	bgroup): ption (Describe to the source of t	Horizon	Color (10YR 10YR 10YR	Matrix Moist) 3/1 3/1 3/1	% 100 95 90	Col 10YR 10YR	or (Moist) 5/6 5/6 5/1	mottles Mottles % 5 5 5	Type C C D	Location M M M	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6	bgroup): ption (Describe to the source of t	Horizon	Color (10YR 10YR 10YR e if indicator	Matrix Moist) 3/1 3/1 3/1	% 100 95 90	Col 10YR 10YR 10YR	or (Moist) 5/6 5/6 5/1	Mottles Mottles 5 5	Type C C D	Location M M M Indicators for	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip	bgroup): ption (Describe to the source of t	Horizon	Color (10YR 10YR 10YR	Matrix Moist) 3/1 3/1 3/1	% 100 95 90	Col 10YR 10YR	or (Moist) 5/6 5/6 5/1	Mottles Mottles 5 5 5	Type C C D asses (LRR N,□	Location M M M Indicators for A10 - 2cm	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi	bgroup): ption (Describe to the string of t	Horizon dicators (check her	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su	Matrix Moist) 3/1 3/1 3/1	% 100 95 90 t present	Col 10YR 10YR 10YR):	or (Moist) 5/6 5/6 5/1	Mottles Mottles % 5 5 on-Manganese M	Type C C D asses (LRR N,□ RA 122, 136) □ in Soils (MLRA□	Location M M M Indicators for A10 - 2cm M A16 - Coast F19 - Piedmon	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen	bgroup): ption (Describe to the string of t	Horizon	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu	Matrix Moist) 3/1 3/1 3/1 s are not Redox d Matrix urface ue Below D	% 100 95 90 t present	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	mottles Mottles % 5 5 on-Manganese M mbric Surface (ML) edmont Floodplai	Type C C D asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L	bgroup): ption (Describe to the string of t	Horizon dicators (check her	Color (10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalu S9 - Thin Da	Matrix Moist) 3/1 3/1 3/1 s are not Redox d Matrix urface ue Below D rk Surface	% 100 95 90 t present	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	Mottles Mottles % 5 5 on-Manganese M mbric Surface (MLI	Type C C D asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted	bgroup): ption (Describe to the string of t	Horizon dicators (check her	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy CF3 - Deplete	Matrix Moist) 3/1 3/1 3/1 s are not Redox of Matrix urface ue Below Dark Surface Gleyed Madd Matirx	% 100 95 90 t present	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	mottles Mottles % 5 5 on-Manganese M mbric Surface (ML) edmont Floodplai	Type C C D asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Da	bgroup): ption (Describe to the string of t	Horizon	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox [Matrix Moist) 3/1 3/1 3/1 s are not Redox Matrix Inface Jue Below Dirk Surface	% 100 95 90 t present Park Surface (MLRA 147, 148) trix ce	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	mottles Mottles % 5 5 on-Manganese M mbric Surface (ML) edmont Floodplai	Type C C D asses (LRR N, RA 122, 136) in Soils (MLRA	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histi A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai S1 - Sandy Muc	bgroup): ption (Describe to	Horizon dicators (check her	Color (10YR 10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox D F7 - Deplete	Matrix Moist) 3/1 3/1 3/1	% 100 95 90 t present Park Surface (MLRA 147, 148) trix ce fface	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	Mottles Mottles % 5 5	Type C C D asses (LRR N, RA 122, 136) In Soils (MLRA In Soi	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very Other (Expl	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer	bgroup): ption (Describe to the string of t	Horizon dicators (check her	e if indicator S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox [Matrix Moist) 3/1 3/1 3/1 3/1 s are not Redox d Matrix urface ue Below D rk Surface Jleyed Matd Matirx Dark Surface d Dark Surface Depression	% 100 95 90 t present Park Surface (MLRA 147, 148) trix ce rface	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	Mottles Mottles % 5 5	Type C C D asses (LRR N, RA 122, 136) In Soils (MLRA In Soi	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very Other (Expl	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dat S1 - Sandy Muc S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer (If Observed)	bgroup): ption (Describe to	Horizon dicators (check her	Color (10YR 10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox D F7 - Deplete	Matrix Moist) 3/1 3/1 3/1	% 100 95 90 t present Park Surface (MLRA 147, 148) trix ce fface	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	Mottles Mottles % 5 5	Type C C D asses (LRR N, RA 122, 136) In Soils (MLRA In Soi	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very Other (Expl	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dai S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer	bgroup): ption (Describe to the string of t	Horizon dicators (check her	Color (10YR 10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox D F7 - Deplete	Matrix Moist) 3/1 3/1 3/1 3/1 s are not Redox d Matrix urface ue Below D rk Surface Jleyed Matd Matirx Dark Surface d Dark Surface Depression	% 100 95 90 t present Park Surface (MLRA 147, 148) trix ce rface	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	Mottles Mottles % 5 5	Type C C D asses (LRR N, RA 122, 136) In Soils (MLRA In Soi	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very Other (Expl	Texture (e.g. clay, sand, loam) silt silt silty clay
Map Unit Name Taxonomy (Sub Profile Descrip Top Depth 0 4 6 NRCS Hydric A1- Histosol A2 - Histic Epip A3 - Black Histic A4 - Hydrogen A5 - Stratified L A10 - 2 cm Muc A11 - Depleted A12 - Thick Dat S1 - Sandy Muc S1 - Sandy Muc S4 - Sandy Gle Restrictive Layer (If Observed)	bgroup): ption (Describe to the string of t	Horizon dicators (check her	Color (10YR 10YR 10YR 10YR e if indicator S5 - Sandy F S6 - Stripped S7 - Dark Su S8 - Polyvalu S9 - Thin Da F2 - Loamy G F3 - Deplete F6 - Redox D F7 - Deplete	Matrix Moist) 3/1 3/1 3/1 3/1 s are not Redox d Matrix urface ue Below D rk Surface Jleyed Matd Matirx Dark Surface d Dark Surface Depression	% 100 95 90 t present Park Surface (MLRA 147, 148) trix ce rface	Col 10YR 10YR 10YR): □	or (Moist) 5/6 5/6 5/1	Mottles Mottles % 5 5	Type C C D asses (LRR N, RA 122, 136) In Soils (MLRA In Soi	Location M M M Indicators for A10 - 2cm I A16 - Coast F19 - Piedmon TF12 - Very Other (Expl	Texture (e.g. clay, sand, loam) silt silt silty clay



tratum (P	lot size: 30 ft radius)	0/ 0	Devil	La LOCata	Dominance Test Workshoot
1.	<u>Species Name</u>	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
2.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)
3.					() ty
4.					Total Number of Dominant Species Across All Strata: 3 (B)
5.					Percent of Dominant Species That Are OBL, FACW, or
6.					FAC: 0.0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. 0
	Total Cover =	0			FACW spp. 7
					FAC spp. $0 \times 3 = 0$
1	Elaeagnus angustifolia	25	Υ	FACU	FACU spp. 52 $x = 4$ 208 $x = 52$
2.			<u>'</u>		OF L spp X S =
3.					Total 79 (A) 322 (B)
4.					(=)
5.					Prevalence Index = $B/A = 4.076$
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					Yes □ ☑ No Rapid Test for Hydrophytic Vegetation
10.	 				Yes □ ☑ No Dominance Test is > 50%
	Total Cover =	25			Yes □ ☑ No Prevalence Index is ≤ 3.0 *
la Otarataura (DI	-1 -1 5 (1 11)				Yes □ ☑ No Morphological Adaptations (Explain) *
rb Stratum (Pl	ot size: 5 ft radius) Dipsacus fullonum	20	Υ	FACU	Yes □ ☑ No Problem Hydrophytic Vegetation (Explain) *
2.	Dipsacus iulionum Daucus carota	20	<u>т</u> Ү	UPL	* Indicators of hydric soil and wetland hydrology must be
3.	Symphyotrichum novae-angliae	7	<u>'</u> N	FACW	present, unless disturbed or problematic.
4.	Solidago altissima	7	N	FACU	Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.
10.					it. tail.
11.					All hash and a local to the state of the sta
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.					
14. 15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
10.	Total Cover =	<u></u> 54			vvoody villes = / iii woody villos groater triair 0.20 it. iii rieight.
	Total Cover =	34			
ndy Vine Stra	tum (Plot size: 30 ft radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present □ Yes ☑ No
4.					
5.					
	Total Cover =	0			
marks:					



Project/Site: Applicant: Investigator #1:	American B	ck 138 kV Transmission Electric Power olson	Line Relocation	•	igator #2:		tec Project #:	193704783		Date: County: State:	02/10/17 Athens Ohio
Soil Unit:	Dekalb-Westmoreland complex, 40 to 70 percent slop NWI/WWI Classification: NA Wetland ID: NA Toeslope Local Relief: Concave Sample Point: SP-13										
Landform: Slope (%):	Toeslope 0	L atituda:	39.380195		cai Reliet: .ongitude:			Datum:		Sample Point: Community ID	
		litions on the site typi						✓ Yes □	No	Section:	. Of L
-		or Hydrology □ signi			(11111)	,		umstances pre		Township:	
•		or Hydrology □ natu	•				✓ Ye:	•		Range:	Dir:
SUMMARY OF											
Hydrophytic Ve	•			□ Yes				Hydric Soils		Videia A VAZ-d	□ Yes ☑ No
Wetland Hydrol	ogy Present	<u> </u>		☑ Yes	s 🗆 No			Is This Samp	oling Point V	Vithin A Wet	and? ■ Yes ⊠ No
Remarks:											
HYDROLOGY											
	• •	ators (Check here if i	ndicators a	re not pre	esent):				Secondary:	B6 - Surface S	oil Crooks
	<u>.</u> A1 - Surface	Water			B9 - Wate	er-Stained	Leaves				egetated Concave Surface
☑	A2 - High Wa				B13 - Aqu					B10 - Drainage	
□	A3 - Saturati B1 - Water N				B14 - Tru C1 - Hydr					B16 - Moss Tri C2 - Dry Seaso	m Lines on Water Table
	B2 - Sedime						ospheres on Liv	ing Roots		C8 - Crayfish E	
_	B3 - Drift De						educed Iron				No Visible on Aerial Imagery
	B4 - Algal Ma B5 - Iron Dep				C6 - Rece C7 - Thin		eduction in Tilled	d Soils		D1 - Stunted of D2 - Geomorpl	r Stressed Plants
	•	on Visible on Aerial Imag	gery		Other (Ex					D3 - Shallow A	
					,		,			D4 - Microtopo	graphic Relief
5										D5 - FAC-Neut	trai l'est
Field Observat Surface Water I Water Table Pro Saturation Pres	Present? esent?	□ Yes ☑ No ☑ Yes □ No ☑ Yes □ No	Depth: Depth: Depth:		(in.) (in.) (in.)			Wetland Hyd		esent? ☑	Yes □ No
	ed Data (stre	eam gauge, monitoring	well, aerial	photos, p	revious ins	pections), if available:		N/A		
Remarks:											
COLLC											
SOILS Man Unit Name	· Dekalh-We	estmoreland complex	40 to 70 n	arcent slo	nnes S	Sarias Di	rainage Class	· Ν/Δ			
Taxonomy (Sub		Sumorciana complex	., -10 t0 70 p	Crocrit Sit	оров с	ociico Di	amage Class	5. 14// C			
		he depth needed to document the indica	ator or confirm the abs	ence of indicators	s.) (Type: C=Conc	entration, D=De	pletion, RM=Reduced Ma	atrix, CS=Covered/Coated Sa	and Grains; Location:	PL=Pore Lining, M=Mat	trix)
Тор	Bottom			Matrix				Mottles			Texture
Depth	Depth	Horizon	Color (Moist)	%	Co	or (Moist)	%	Type	Location	(e.g. clay, sand, loam)
0	10		10YR	3/1	100						loam
10	16		10YR	4/1	70	10YR	5/6	30	С	M	loam
		dicators (check here				<u> </u>	<u> </u>				or Problematic Soils ¹
□ A1- Histosol □ A2 - Histic Epipe □ A3 - Black Histic □ A4 - Hydrogen S □ A5 - Stratified La □ A10 - 2 cm Muc □ A11 - Depleted □ A12 - Thick Dar □ S1 - Sandy Muc □ S4 - Sandy Gley	edon C Sulfide ayers k (LRR N) Below Dark Su k Surface k Mineral (LRR N	urface	S5 - Sandy F S6 - Stripped S7 - Dark St S8 - Polyvalt S9 - Thin Da F2 - Loamy (F3 - Deplete F6 - Redox I F7 - Deplete F8 - Redox I	Redox d Matrix urface ue Below D rk Surface Gleyed Ma d Matirx Dark Surfac d Dark Sur	eark Surface (MLRA 147, 148 trix ce face) (MLRA 147,	□ F13 - Uı □ F19 - Pi	on-Manganese Mandric Surface (MLR) edmont Floodplai ed Parent Materia	RA 122, 136)	A10 - 2cm I A16 - Coast F19 - Piedmo TF12 - Very Other (Expl	Muck (MLRA 147) Prairie Redox (MLRA 147, 148) nt Floodplain Soils (MLRA 136, 147) / Shallow Dark Surface
Restrictive Layer	Type:			Depth:	N/A			Hydric Soil			Yes ☑ No
(If Observed)	i ype:	11/7		ր շ իւп.	11/71			Tiyunc Son	resent?		I CO - INU
Remarks:											



Project/Site:	Lemaster-Lick 138 kV Transmission Line Relocation	n Project			Wetland ID: NA Sample Point SP-13
VEGETATION	(Species identified in all uppercase are non-native s	species.)			
Tree Stratum (Plo	ot size: 30 ft radius)				T
	<u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.	Carya ovata	20	Υ	FACU	
2.					Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 8 (B)
5.					Percent of Dominant Species That Are OBL, FACW, or
6.					FAC: 50.0% (A/B)
7.					(A)
8.					Dravalance Index Warksheet
					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.	 				OBL spp. 0 x 1 = 0
	Total Cover =	20			FACW spp. $\underline{\qquad}$ $X 2 = \underline{\qquad}$ $\underline{\qquad}$ $\underline{\qquad}$
					FAC spp. $\underline{\hspace{1cm}}$ X $3 = \underline{\hspace{1cm}}$ 45
Sapling/Shrub Stra	atum (Plot size: 15 ft radius)				FACU spp 35
1.	Liriodendron tulipifera	5	Y	FACU	UPL spp. $0 x 5 = 0$
2.	Rubus allegheniensis	5	Y	FACU	
3.					Total 55 (A) 195 (B)
4.					
5.					Prevalence Index = B/A = 3.545
6.					
7.					
8.					Hydrophytic Vegetation Indicators:
9.					
10.					Yes □ ☑ No Rapid Test for Hydrophytic Vegetation
10.	Total Cover	10			Yes □ ☑ No Dominance Test is > 50%
	Total Cover =	10			Yes □ ☑ No Prevalence Index is ≤ 3.0 *
					Yes □ ☑ No Morphological Adaptations (Explain) *
Herb Stratum (Plo	,				Yes □ ☑ No Problem Hydrophytic Vegetation (Explain) *
1.	Verbesina alternifolia	5	Υ	FAC	* Indicators of hydric soil and wetland hydrology must be
2.	Onoclea sensibilis	5	Υ	FACW	present, unless disturbed or problematic.
3.	Dichanthelium clandestinum	5	Υ	FAC	present, diffess distarbed of problematic.
4.	Elymus canadensis	5	Υ	FACU	Definitions of Vegetation Strata:
5.	Vernonia gigantea	5	Υ	FAC	
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28
					ft. tall.
10.					
11.					I I L. All harbonous (non woods) plants, recording of -!
12.					Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.
13.					and woody planto 1000 than 0.20 ft. tail.
14.					
15.					Woody Vines - All woody vines greater than 3.28 ft. in height.
	Total Cover =	25			
Woody Vine Strati	um (Plot size: 30 ft radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present □ Yes ☑ No
4.					ilydiopilytic vegetation resent 1 165 110
5.	Total Cover				
Daniel 2	Total Cover =	0			
Remarks:					
Additional Rer	marks:				

LEMASTER-LICK 138 KV TRANSMISSION LINE RELOCATION PROJECT, ATHENS COUNTY, OHIO

D.2 ORAM DATA FORMS



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

Instructions

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

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

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

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

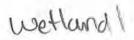
Background Information

Wetland 1

Name:	
Aaron Kwolek	
Date: 11/14/16	
Affiliation:	
Stantec	
Address:	
11687 Lebanon Rd, Cincinnati, OH 4524/	
513 842 8200	
Agrono Kwolek @ stantec, com	
Name of Wetland: Wetland!	
Venetation Communit(lee):	
PEM	
HGM Class(es): Depressional	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	
A. C.	
luet land	
Da Endustrial De	
	alise selection of the
Poster Radustrial Dr	
Posten Ro Posten Station	
Poston Rad Poston Station Lat/Long or UTM Coordinate 39. 383058 - 82.178786	
Poston Rodustrial Dr Poston Rodustrial Dr Poston Station	
Poston Rod Poston Staten Lat/Long or UTM Coordinate 39. 383058 - 82.178786 USGS Quad Name Nelson ville	
Posten Rod Posten Staten Lat/Long or UTM Coordinate 39.383058 -82.17878C USGS Quad Name Nelson ville County A Thens Township	
Posten Rd Parns Lat/Long or UTM Coordinate 39. 383058, -82.178786 USGS Quad Name Nelson ville County AThens The Plains Section and Subsection	
Poston Rod Poston Staten Lat/Long or UTM Coordinate 39. 383058 - 82.178786 USGS Quad Name Nelson wille County Athens Township The Plains Section and Subsection Sec 1 TIZN R15W	
Poston Rd Poston Staten Lat/Long or UTM Coordinate 39. 383058, -82.178786 USGS Quad Name Nelson wille County AThens The Plains Section and Subsection Sec 1 TIZN RISM Hydrologic Unit Code 050302040801	
Posten Rd Posten Staten Lat/Long or UTM Coordinate 39. 383058, -82.178786 USGS Quad Name Nelson ville County AThens The Plains Section and Subsection Sec 1 TIZN RISW Hydrologic Unit Code 050302040801	
Lat/Long or UTM Coordinate 39.383058 - 82.17878C USGS Quad Name Nelson wille County A Thens The Plains Section and Subsection Hydrologic Unit Code 050302040801 Site Visit 1/7/16 National Welland Inventory Man.	
Poston Rolling Foston States Poston Rolling Foston States Poston Rolling Foston States Poston	
Lat/Long or UTM Coordinate 39.383058 - 82.17878C USGS Quad Name Nelsonville County A Thens Township The Plans Section and Subsection Hydrologic Unit Code 050302040801 Site Visit 11/7/16 National Welland Inventory Map Nove Soll Stepan Nove	
Poston Rolling Foston States Poston Rolling Foston States Poston Rolling Foston States Poston	

etland Size (acres, hectares): 0,06 30	1
etland Size (acres, hectares): C , O 6 , C (etch: Include north arrow, relationship with other surface water)	s. vegetation zones, etc.
eten. menda north arrow, relationship with other surface water.	o, regulation solitos, etc.
المصادرات	
werland	
wetland	
4	
	111
	///
	1 111
	1 111
1 1 1 1 1	1 111
posten stat	100
100000000000000000000000000000000000000	1 \\ 1
	1
	. /
A STATE OF THE STA	
mments, Narrative Discussion, Justification of Category Chang	6 \$:
	7

Scoring Boundary Worksheet



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

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

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

Narrative Rating

Wetland

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

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

1 Doff 1	١
Wetland	1

8b	Mature forested wetlands. Is the wetland a forested wetland with	LVEO	(10)
0.0	50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	Go to Question 9a
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9Ь	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dlkes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
_		Go to Question 10	
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
90	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marlon Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Countles), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wort etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Wetland

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

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

Site: 4	Jer	land !	Rater(s): AJK	Date: 11/7/16
0		Metric 1. Wetland	Area (size).	
max 6 pts	Subtotal	Select one size class and assign = >50 acres (>20.2ha) (6 25 to <50 acres (10.1 to 10 to <25 acres (4 to <1 3 to <10 acres (1.2 to <0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04 <<0.1 acres (0.04ha) (0 see (0.04ha) (0 s	score. pts) <20.2ha) (5 pts) 0.1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts) to <0.12ha) (1 pt)	
3	7		ouffers and surround	ling land use.
max 14 pts.	sublotal	MIDE. Buffers average MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land of VERY LOW. 2nd growl LOW. Old field (>10 ye MODERATELY HIGH.	h. Select only one and assign score. It 50m (164fl) or more around welland page 25m to <50m (82 to <164fl) around rage 10m to <25m (32ft to <82ft) around ras average <10m (<32ft) around weltal use. Select one or double check and a thor older forest, prairie, savannah, will ars), shrub land, young second growth Residential, fenced pasture, park, cons, open pasture, row cropping, mining, of	erimeter (7) I welland perimeter (4) Ind welland perimeter (1) Ind perimeter (0) Ind
4	7	Metric 3. Hydrolo		
		High pH groundwater (8) Other groundwater (3) Precipitation (1) Seasonal/intermittent si Perennial surface water 3c. Maximum water depth. Selector (27.6in) (3) 0.4 to 0.7m (15.7 to 27.1 to 2	urface water (3) (lake or stream) (5) 3d. st.only one and assign score. 6in) (2) logic regime. Score one or double che (12) Check all disturbances observed	
4	11	Metric 4. Habitat	Alteration and Develo	opment.
шых 20 pfs	sublotal	4a. Substrate disturbance. Score None or none apparent Recovered (3) Recovering (2) Recent or no recovery (
		4b. Habitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	only one and assign score.	
	btotal this p	4c. Habitat alteration. Score one None or none apparent Recovered (6) Recovering (3) Recent or no recovery	(9) Check all disturbances observed mowing grazing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

12

End of Quantitative Rating. Complete Categorization Worksheets.

2

3

Amphibian breeding pools

Microtopography Cover Scale

Absent

of marginal quality

and of highest quality

Present very small amounts or if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

ORAM Summary Worksheet

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

Complete Wetland Categorization Worksheet.



Choices	Circle one	\cap	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 blological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	100	Is quantitative rating score greater than the Category 2 scoring threshold (Including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detalled assessments and the narrative criteria	(, Ng)	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	VES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's blotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons of information for this determination should be provided.

	1	Final Category	
Choose one	Category	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

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

Instructions

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

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

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

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

Background Information

Wetland Z

Name:
Jody Nicholson
Date: 2/10/2017
Affiliation:
Stantco Address:
Address: 8770 Guion Rd. Suite B, Indianapolis, IN 46268
317 - 876 - 837 5
Name of Wetland: Wetland Z
Name of Wetland? Wetland Z
Vegetation Communit(ies):
HGM Class(es):
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.
Industria) Dr poston Rd
Lat/Long or UTM Coordinate 10 2 12 20 20 A 1 D 2 12 12 C T 2 1 1
USGS Quad Name
Nelsonville
County
To sold
Township TION
Section and Subsection
11014
Section and Subsection 331 TION RIHW
Section and Subsection Section and Subsection Sol TION RIHW Hydrologic Unit Code O503000+ Site Visit 210 2017 National Wetland Inventory Mad
Section and Subsection 831 TION RIHW Hydrologic Unit Code 05030104 Site Visit 210 2017
Section and Subsection 831 TION RIHW Hydrologic Unit Code 0503000+ Site Visit 210 2017 National Wetland Inventory Map PEMIA Ohio Wetland Inventory Map NA
Section and Subsection 831 TION PIHW Hydrologic Unit Code 0503010H Site Visit 210 Z017 National Wetland Inventory Map PEMIA Ohio Wetland Inventory Map NA

north arrow. r	elationship with	other surface waters	. vegetation zor	ies, etc.	,
A	elationship with	other surface waters			
			es:		
ee ka	ological	Resources	Invent	on R	eport
	Syntace of	swiface weater	rative Discussion, Justification of Category Change	Synthetic Lyter V	Hamley Run

Scoring Boundary Worksheet

Shoulton

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

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

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

Narrative Rating

WetlandZ

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

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

1. JoHn. 17
(Ner work) C
(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?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 90
_		Go to Question 10	7.2
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Wetland Z

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	-	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		23,87
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: Wet	landZ	Rater(s): さい水の	Date: 10 FE 8 ZOV
	788 4 2 4 184 4 1 m d	A (ai-a)	
, 1	Metric 1. Wetland	Area (size).	
max 6 pls, subtota	Select one size class and assign sc >50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts)	
	<0.1 acres (0.04ha) (0 pts	3)	
5 6	Metric 2. Upland b	uffers and surround	ing land use.
max 14 pts subtota	WIDE. Buffers average 5 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. R	Select only one and assign score. Om (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetla e. Select one or double check and a or older forest, prairie, savannah, will s), shrub land, young second growth esidential, fenced pasture, park, consideration.	perimeter (7) I wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallow field. (3)
	Metric 3. Hydrolog	open pasture, row cropping, mining, · V -	construction. (1)
11 17	de la company		2.05-2.0
max 30 pts. subtota	High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surl Perennial surface water (I 3c. Maximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (4) (5) (6) (6) (7)	face water (3) ake or stream) (5) only one and assign score. a) (2) gic regime. Score one or double che	Part of riparian or upland corridor (1) Duration inundation/saturation. Score one or dbl of Semi- to permanently inundated/saturated (2) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (ack and average.
	Recovered (7) Recovering (3) X Recent or no recovery (1)	ditch tile	point source (nonstormwater) filling/grading road bed/RR track dredging other
< 12	Metric 4. Habitat A	Iteration and Devel	opment.
max 20 pts. subtota	4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select of Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one of	one or double check and average. Analy one and assign score. If double check and average.	
27	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

last revised 1 February 2001 jjm

Site:	Wet	land	7	Rater(s):	JN	KB	Date: 20170210
	22						
	subtotal first p	age					
		-i	ic 5. Special We	atlande			
ð	22	Wieti	ic o. Opeciai vv	suarius.			
nax 10 pts	subtotal	L Check a	Il that apply and score as indic	ated.			
			Bog (10)				
			Fen (10)				
		-	Old growth forest (10) Mature forested wetland (5)				
			Lake Erie coastal/tributary w	etland-unrestri	cted hyd	Irology (10)	
			Lake Erie coastal/tributary w				
		8	Lake Plain Sand Prairies (O	ak Openings) (10)		
			Relict Wet Prairies (10) Known occurrence state/fed	eral threatened	or ond	angered energies (10)	
			Significant migratory songbi				
			Category 1 Wetland. See Q				
1	1 1	Metr	ic 6. Plant com	munities	. int	erspersion, micro	topography.
1	24	1			,	o. opo. o. o ,	topograpity.
max 20 pts	subtotal	6a. Wet	land Vegetation Communities	Veg	etation	Community Cover Scale	
		Score all	present using 0 to 3 scale.		0	Absent or comprises <0.1ha (0	
		3	Aquatic bed Emergent		1	Present and either comprises s	
		0	Shrub			vegetation and is of moderate significant part but is of low of	
	1	0	Forest	-	2	Present and either comprises s	
	,	Ò	Mudflats			The second secon	e quality or comprises a small
		0	Open water	-		part and is of high quality	
		6b. horiz	Other zontal (plan view) Interspersio	n.	3	Present and comprises signific vegetation and is of high qua	
		Select or		-		regetation and to or night qua	int,
			High (5)	Narr		escription of Vegetation Quality	
			Moderately high(4)		low	Low spp diversity and/or predo	
		1	Moderate (3) Moderately low (2)	-	mod	disturbance tolerant native sp Native spp are dominant comp	
		T	Low (1)		mod		sturbance tolerant native spp
			None (0)			can also be present, and spe	ecies diversity moderate to
			erage of invasive plants. Refe 1 ORAM long form for list. Ac			moderately high, but general	
			t points for coverage		high	A predominance of native spec	
		or adda.	Extensive >75% cover (-5)		, iigii	and/or disturbance tolerant n	
			Moderate 25-75% cover (-3)			absent, and high spp diversit	
		0	Sparse 5-25% cover (-1)			the presence of rare, threate	ned, or endangered spp
			Nearly absent <5% cover (0 Absent (1)	,	flat and	Open Water Class Quality	
		6d. Micr	otopography.	- Indu	0	Absent <0.1ha (0.247 acres)	
			present using 0 to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47	acres)
		6	Vegetated hummucks/tussu		2	Moderate 1 to <4ha (2.47 to 9	.88 acres)
		0 0	Coarse woody debris >15cm Standing dead >25cm (10in)		3	High 4ha (9.88 acres) or more	
		9	Amphibian breeding pools		otopog	raphy Cover Scale	
				2	0	Absent	
				100	1	Present very small amounts or	if more common
				-	2	of marginal quality Present in moderate amounts,	but not of highest
					2	quality or in small amounts o	
	_			S -	3	Present in moderate or greater	
						and of highest quality	

End of Quantitative Rating. Complete Categorization Worksheets.

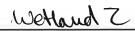
ORAM Summary Worksheet

Welland 2

			Occidents.
		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (O)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NØ	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size		
rtaung	Metric 2. Buffers and surrounding land use	5	
	Metric 3. Hydrology	11	
	Metric 4. Habitat	5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	2	
	TOTAL SCORE	24	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet



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

	Fin	al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Wetland 3

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

Instructions

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

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

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

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

Dackground mormation wetland 3
Name: Jody Nicholson
Date:
2 10 2017 Affiliation:
Stantec Address:
8770 buion Rd. Suite B, Indianapolis IN 46268
Phone Number: 317 - 876 - 8375
e-mail address:
Name of Wetland: Wetland 3
Vegetation Communit(ies):
HGM Class(es):
depressional
wetland ladustrial
Poston Rd
· simeture
Poton Rd "Osimeture (Kistra Transmission
Q*
Lat/Long or UTM Coordinate 39. 380 206° N , − 82.17 14 48° W
USGS Quad Name
County
Township TIIV
Section and Subsection SLe TIIN RISW
Hydrologic Unit Code 05030204
Site Visit 2 10 2017
National Wetland Inventory Map
Ohio Wetland Inventory Map
Soil Survey
Delineation report/map See Ecological Resources Inventory Report

Structure Structure Structure Other and growth forces Comments, Narrative Discussion, Justification of Category Changes:	Wetland Size (acres, hectares): 0.0 Z ac	
Old Field Transmission Line 2019 And growth		rface waters, vegetation zones, etc.
Old Field Transmission Line 2019 And growth		2
Old Field Transmission Line 2019 And growth		
Old Field Transmission Line 2019 And growth		
Old Field Transmission Line 2019 And growth	1/	
Old Field Transmission Line 2019 And growth	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	· ·
Old Field Transmission Line 2019 And growth	18)
Old Field Transmission Line 2019 And growth	()	\
Old Field Transmission Line 2019 And growth	13	
Old Field Transmission Line 2019 And growth	2/	
Old Field Transmission Line 2019 And growth	/	
Old Field Wisstore Transmission W	1	Structure
Old Field Wisstore Transmission W		
Old Field Wisstore Transmission W	1	
Old Field Wisstore Transmission W		
Old Field Wisstore Transmission W	1	
Old Field Wisstore Transmission W	//	4
Old Field Wisstore Transmission W	X	-5/
Old Field Wisstore Transmission W		(00)
Wisking!	~ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1 amuth
Wisking!	1) 20/	2nd of Great
Wisking!		3
Wisking!	TO VI	-/
Wisking!	1)	2/
Wisking!	ideald 3	N
Wisking!	Olo No	
Wisking!	1,03	
Wisking!	(7	
· · · · · · · · · · · · · · · · · · ·	1 1500	
· · · · · · · · · · · · · · · · · · ·	(:55)	
· · · · · · · · · · · · · · · · · · ·	A WITT	
Comments, Narrative Discussion, Justification of Category Changes:	(4	
Comments, Narrative Discussion, Justification of Category Changes:	1/	
	Comments, Narrative Discussion, Justification of Cate	jory Changes:
Final score : 3 Category: 2	Final score : 2	

Scoring Boundary Worksheet

wetland 3

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

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

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

Narrative Rating

Wetland 3

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

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

Wetland 3

			1
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	0
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status	NO Go to Question 9c
9c	Are Lake Eric water levels the wetland's primary hydrological influence	Go to Question 10 YES	NO
90	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	Go to Question 9d	Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

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

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

Site: Wet	tand 3	Rater(s): SN	K() [Date: 2 10 201
	Metric 1 Wetl:	and Aroa (cizo)		1 - 1
0 0	Metric 1. Wetla	iliu Alea (Size).		
max 6 pts. subtotal	DOIGOT DITO DIEG DIGGE GITG G			
	>50 acres (>20.2) 25 to <50 acres (na) (6 pts) 0.1 to <20.2ha) (5 pts)		
	10 to <25 acres (4	to <10.1ha) (4 pts)		
	3 to <10 acres (1.	2 to <4ha) (3 pts) .12 to <1,2ha) (2pts)		
	0.1 to <0.3 acres	(0.04 to <0.12ha) (1 pt)		
	<0.1 acres (0.04h	· · · ·		
11 11	Wetric 2. Uplai	nd buffers and surr	ounding land use.	
nax 14 pts subtotal	2a Calculate average huffe	r width. Select only one and assign	s score. Do not double abook	
		erage 50m (164ft) or more around v		
		average 25m to <50m (82 to <164) average 10m to <25m (32ft to <8		
	Tradition. Build	Buffers average <10m (<32ft) arou	and wetland perimeter (0)	
	Intensity of surrounding	land use. Select one or double ch growth or older forest, prairie, sava	eck and average.	
	LOW. Old field (>	10 years), shrub land, young secon	d growth forest. (5)	
	MODERATELY H	GH. Residential, fenced pasture, pustrial, open pasture, row cropping,	park, conservation tillage, new fallow	field. (3)
	Metric 3. Hydro		mining, construction. (1)	
9 20	Wethe 3. Hydre	ology.		
ax 30 pts. subtotal	3a. Sources of Water. Scor	e all that apply.	3b. Connectivity. Score all tha	it apply
	High pH groundwa	iter (5)	100 year floodplain	(1)
	Other groundwate Precipitation (1)	r (3)	Between stream/lake	e and other human use (1 nd (e.g. forest), complex (
	Seasonal/Intermit	ent surface water (3)	Part of riparian or up	pland corridor (1)
		water (lake or stream) (5) Select only one and assign score.	3d. Duration inundation/satura	tion. Score one or dbl che ly inundated/saturated (4)
	>0.7 (27.6in) (3)		Regularly inundated	/saturated (3)
	0.4 to 0.7m (15.7 to 0.4m (<15.7in) (1		Joeasonally inunuate	ed (2) d in upper 30cm (12in) (1)
	3e. Modifications to natural	hydrologic regime. Score one or do	ouble check and average.	
	None or none app			
	Recovered (7) Recovering (3)	ditch	point source (nonsto	rmwater)
	Recent or no reco		road bed/RR track	
		weir stormwater input	dredging	
	Matria 4 Habit			
9 29	Wetric 4. Habit	at Alteration and D	evelopment.	
ax 20 pts. subtotal	4a. Substrate disturbance.	Score one or double check and ave	rage	
	None or none app		-34	
	Recovered (3) Recovering (2)			
	Recent or no reco			
	4b. Habitat development. S Excellent (7)	elect only one and assign score.		
	Very good (6)			
	Good (5) Moderately good (4)		
	Fair (3)	*)		
	Poor to fair (2)			
	Poor (1) 4c. Habitat alteration. Score	one or double check and average.		
			observed	
	None or none app	arent (9) Check all disturbances of		
	Recovered (6)	mowing	shrub/sapling remov	al
	Recovered (6) Recovering (3)	mowing grazing	shrub/sapling remove herbaceous/aquatic	al bed removal
	Recovered (6)	mowing grazing clearcutting selective cutting	shrub/sapling remov herbaceous/aquatic sedimentation dredging	al bed removal
19	Recovered (6) Recovering (3)	mowing grazing clearcutting	shrub/sapling remov herbaceous/aquatic sedimentation dredging	al bed removal

Site: W	etland 3	Rater(s)	: 5N	KB	Date: WFEB707
subtotal 8 Z	.9	Special Wetlands	5 .		
max 10 pts. sui	Bog (10 Fen (10 Old gro Mature Lake E Lake E Lake P Relict V Known Signific	over the control of t	icted hydrolo s) (10) ned or enda d habitat or d	ogy (5) ngered species (10) usage (10)	
	Matrice	ory 1 Wetland. See Question 1 Q			, microtopography.
) (
max 20 pts. su		_		Community Cover	
	O Score all present Aquatic Emerge Shrub		1	Present and eithe vegetation and i	ses <0.1ha (0.2471 acres) contiguous area r comprises small part of wetland's s of moderate quality, or comprises a out is of low quality
	7 Forest Mudflar	ts	2	Present and eithe vegetation and i part and is of his	r comprises significant part of wetland's s of moderate quality or comprises a small gh quality
	Other_ 6b. horizontal (p	lan view) Interspersion.	3	The College of the Co	orises significant part, or more, of wetland's is of high quality
	Select only one.				40.00
	High (5	·		escription of Veget	
	Modera Modera	ately high(4) ate (3)	low		and/or predominance of nonnative or rant native species
	Low (1 None (6c. Coverage of	•	mod	although nonna can also be pre	minant component of the vegetation, tive and/or disturbance tolerant native spp sent, and species diversity moderate to n, but generally w/o presence of rare ndangered spp
	or deduct points Extens Moder: Sparse	for coverage sive >75% cover (-5) ate 25-75% cover (-3) e 5-25% cover (-1)	high	and/or disturbat absent, and hig	of native species, with nonnative spp nce tolerant native spp absent or virtually h spp diversity and often, but not always, frare, threatened, or endangered spp
	Nearly	absent <5% cover (U)	Mudflet end	Onen Water Class	Ounlike
	Absen 6d. Microtopogra		0	Absent <0.1ha (0	
		t using 0 to 3 scale	1		(0.247 to 2.47 acres)
		ated hummucks/tussucks	2		ha (2.47 to 9.88 acres)
	To Coarse	e woody debris >15cm (6in)	3	High 4ha (9.88 ac	cres) or more
		ing dead >25cm (10in) dbh ibian breeding pools	Microtopog	raphy Cover Scale	
	4		0	Absent	
			1	of marginal qua	
			2		ate amounts, but not of highest all amounts of highest quality
			3		ate or greater amounts

3 \

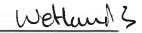
End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle	wetland 3
		answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES INO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use	11	
	Metric 3. Hydrology	9	
	Metric 4. Habitat	9	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	Z	
	TOTAL SCORE	31	Category based on score breakpoints

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet



Choices	Circle one	0	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score 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	(60)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit moderate OR superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, loca or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	FIII	al Category	
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

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

Instructions

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

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

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

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

Background information	Wethered
Name: Jody Nicholson	
Date: 2/10/2017	
Affiliation:	
Stantec Address:	
Address: 8770 Guion Rd. Suite B, Indianapolis, IN 4624 Phone Number:	28
317-974-8313	
e-mail address: jody, nicholson astantec.com	
Name of Wetland: Wetland 4	
Vegetation Communit(ies):	
HGM Class(es): depressional	
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc.	/
ductrice D.	
£ //	
25/	23/
	W.
Poston Rd	Zun/
	1
7	
Lat/Long or UTM Coordinate 20, 230 244 4 1 Documents	
39. 378314°N - 92.176999°W USGS Quad Name	
County	
Township	
Section and Subsection	
Section and Subsection 50 TIIN PISW Hydrologic Unit Code	
05 0 3 0 7 0 H	
2 D 20 7	
NA Ohio Walland Investory Man	
N A	
Chagnin silt lown, 0-30% slopes trequently flooded	
Delineation report/map See Ecological Resources Inventory Report	

Name of Wetland: Wetland 4	
Wetland Size (acres, hectares):	
Sketch: Include north arrow, relationship with other surface waters	vegetation zones, etc.
Les droubly boxes & Hamlery Pur	
Final score: 37.5	Category: 2

Scoring Boundary Worksheet

Wetland 4

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

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

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

Narrative Rating

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

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

			Wetland
8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status.	Go to Question 9a
		Go to Question 9a	0
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
С	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland	NO Go to Question 9e
е	Does the wetland have a predominance of non-native or disturbance	Go to Question 10 YES	(NO
	tolerant native plant species within its vegetation communities?	Wetland should be evaluated for possible Category 3 status	Go to Question 10
0	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in	Go to Question 10 YES	(NO)
	Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	Wetland is a Category 3 wetland. Go to Question 11	Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	Complete Quantitative Rating

Wetland 4

Table 1. Characteristic plant species.	
--	--

) " (= I = =

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	Zygadenus elegans var. glaucus	Calla palustris	Carex cryptolepis	Calamagrostis canadensis
Myriophyllum spicatum	Cacalia plantaginea	Carex atlantica var. capillacea	Carex lasiocarpa	Calamogrostis stricta
Najas minor	Carex flava	Carex echinata	Carex stricta	Carex atherodes
Phalaris arundinacea	Carex sterilis	Carex oligosperma	Cladium mariscoides	Carex buxbaumii
Phragmites australis	Carex stricta	Carex trisperma	Calamagrostis stricta	Carex pellita
Potamogeton crispus	Deschampsia caespitosa	Chamaedaphne calyculata	Calamagrostis canadensis	Carex sartwellii
Ranunculus ficaria	Eleocharis rostellata	Decodon verticillatus	Quercus palustris	Gentiana andrewsii
Rhamnus frangula	Eriophorum viridicarinatum	Eriophorum virginicum	_	Helianthus grosseserratus
Typha angustifolia	Gentianopsis spp.	Larix laricina		Liatris spicata
Typha xglauca	Lobelia kalmii	Nemopanthus mucronatus		Lysimachia quadriflora
71 6	Parnassia glauca	Schechzeria palustris		Lythrum alatum
	Potentilla fruticosa	Sphagnum spp.		Pycnanthemum virginianum
	Rhamnus alnifolia	Vaccinium macrocarpon		Silphium terebinthinaceum
	Rhynchospora capillacea	Vaccinium corymbosum		Sorghastrum nutans
	Salix candida	Vaccinium oxycoccos		Spartina pectinata
	Salix myricoides	Woodwardia virginica		Solidago riddellii
	Salix serissima	Xyris difformis		
	Solidago ohioensis	30		
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

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

Site: \	Net	and 4	Rater(s):	SNIKB		Date: 10FEB 2017
0\	0	Metric 1. Wetland A	rea (size)			
nax 6 pts.	subtotal	Select one size class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20 10 to <25 acres (4 to <10 1h 3 to <10 acres (1.2 to <4ha) 0.3 to <3 acres (0.12 to <1.2 0.1 to <0.3 acres (0.04 to <0 <0.1 acres (0.04ha) (0 pts)	.2ha) (5 pts) a) (4 pts) (3 pts)			
14	14	Metric 2. Upland but	fers and	surroundir	ng land use.	
nax 14 pts.	subtotal	2a. Calculate average buffer width. S WIDE. Buffers average 50m MEDIOW. Buffers average 2	n (164ft) or more 25m to <50m (82	around wetland peri to <164ft) around w	meter (7) retland perimeter (4)	
	7	NARROW. Buffers average VERY NARROW. Buffers a 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years), MODERATELY HIGH. Resi HIGH. Urban, industrial, ope	verage <10m (<3 Select one or dolder forest, prain shrub land, your dential, fenced p	32ft) around wetland ouble check and ave rie, savannah, wildlif ng second growth for asture, park, conser	perimeter (0) erage. fe area, etc. (7) rest. (5) vation tillage, new fallow	field. (3)
11.5	25.5	Metric 3. Hydrology.				
nax 30 pts.	subtotal	3a. Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lak 3c. Maximum water depth. Select onl	e water (3) e or stream) (5)	3d, C	Part of wetland/upla × Part of riparian or un Duration inundation/sature	(1) se and other human use (1 and (e.g. forest), complex pland corridor (1) ation. Score one or dbl ch tly inundated/saturated (4)
		0.4 to 0.7m (15.7 to 27.6in) (2.0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic	A 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ار کے ا one or double check	Seasonally inundateSeasonally saturate	
		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all distu ditch tile dike weir stormwat		point source (nonst filling/grading road bed/RR track dredging other	ormwater)
10	455	Metric 4. Habitat Alt	eration a	nd Develo	oment.	4
nax 20 pts.	subtotal	4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2)	or double check	and average.		
		Recent or no recovery (1) 4b. Habitat development. Select only Excellent (7) Very good (6)	one and assign	score		
		Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)				
		4c. Habitat alteration. Score one or d	The same of the sa			
		None or none apparent (9) Recovered (6) Recovering (3)	mowing grazing	rbances observed	shrub/sapling remo	

Site: Wetle	ind	Rate	er(s):	200	(3)	Date: 10 FEB 20
35.5						
sublotal first page		c 5. Special Wetla	inds.			
x 10 pts. subtotal	Check all	that apply and score as indicated				
		Bog (10)				
		Fen (10)				
		Old growth forest (10)				
		Mature forested wetland (5)				
		Lake Erie coastal/tributary wetlan		-		
Ĺ	$_{\times}$	Lake Erie coastal/tributary wetlan Lake Plain Sand Prairies (Oak O			y (5)	
X		Relict Wet Prairies (10)	Jennigs) (10)		
		Known occurrence state/federal t	hreatened o	or endand	ered species (10)	
		Significant migratory songbird/wa				
		Category 1 Wetland. See Questi				
.16	Metri	c 6. Plant commu	nities	inte	energion micro	tonogranhy
2 375	Wietii	o o. Tant commu	muco,	iiitei	spersion, inicic	nopograpity.
	6a. Wetla	and Vegetation Communities.	Veget	tation Co	mmunity Cover Scale	
		present using 0 to 3 scale.				0.2471 acres) contiguous area
		Aquatic bed	-		Present and either comprises	
		Emergent			vegetation and is of modera	
X.	0.000	Shrub		-	significant part but is of low	
1		Forest		2	Present and either comprises	-
		Mudflats				ite quality or comprises a sma
		Open water Other	-	2	part and is of high quality	
	6b borizo	ontal (plan view) Interspersion.		3	vegetation and is of high qui	cant part, or more, of wetland
	Select onl		0		vegetation and is of riight qui	anty
		High (5)	Narra	tive Des	cription of Vegetation Qualit	ty
	- 1	Moderately high(4)			Low spp diversity and/or pred	
		Moderate (3)			disturbance tolerant native s	species
	,	Moderately low (2)	m	nod	Native spp are dominant comp	
	1	Low (1) None (0)				listurbance tolerant native spr
		rage of invasive plants. Refer			can also be present, and sp- moderately high, but genera	
	to Table 1	ORAM long form for list. Add			threatened or endangered s	•
		points for coverage	h	igh	A predominance of native spe	
		Extensive >75% cover (-5)				native spp absent or virtually
		Moderate 25-75% cover (-3)		7	absent, and high spp diversi	ity and often, but not always,
		Sparse 5-25% cover (-1)	-		the presence of rare, threate	ened, or endangered spp
		Nearly absent <5% cover (0)			Setting a Settlemen	
l,		Absent (1) topography			pen Water Class Quality Absent <0.1ha (0.247 acres)	
		present using 0 to 3 scale.	-		Low 0.1 to <1ha (0.247 to 2.4	7 acres)
		Vegetated hummucks/tussucks	-		Moderate 1 to <4ha (2.47 to §	
		Coarse woody debris >15cm (6in			High 4ha (9.88 acres) or more	The state of the s
		Standing dead >25cm (10in) dbh				
	6	Amphibian breeding pools	Micro	topogra	ohy Cover Scale	
	-		-		Absent	
				1	Present very small amounts o	r if more common
			-	2	of marginal quality	had not of bish and
				2	Present in moderate amounts quality or in small amounts of	
			-	3	Present in moderate or greate	
				-	and of highest quality	dillouito

37.5

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

Wetherel 4 circle answer or Result insert score Question 1 Critical Habitat COM Narrative Rating YES If yes, Category 3. Question 2. Threatened or Endangered YES MO) If yes, Category 3. Question 3. High Quality Natural Wetland YES NO If yes, Category 3. YES Question 4. Significant bird habitat <u>(10)</u> If yes, Category 3. Question 5. Category 1 Wetlands YES (NO If yes, Category 1. Question 6. Bogs YES NG If yes, Category 3. YES WØ Question 7. Fens If yes, Category 3. (NO Question 8a. Old Growth Forest YES If yes, Category 3. (NO Question 8b. Mature Forested Wetland YEŞ If yes, evaluate for Category 3; may also be 1 or 2. Question 9b. Lake Erie Wetlands -YES (OV) If yes, evaluate for Category 3; may also be Restricted 1 or 2 Question 9d. Lake Erie Wetlands -YES (NO If yes, Category 3 Unrestricted with native plants (NO) Question 9e. Lake Erie Wetlands -YES If yes, evaluate for Unrestricted with invasive plants Category 3; may also be 1 or 2. Question 10. Oak Openings YES (NQ) If yes, Category 3 (NO) Question 11. Relict Wet Prairies YES If yes, evaluate for Category 3; may also be 1 or 2. Quantitative Metric 1. Size 0 Rating Metric 2. Buffers and surrounding land use 14 Metric 3. Hydrology 11.5 Metric 4. Habitat 10 Metric 5. Special Wetland Communities 0 Metric 6. Plant communities, interspersion, 2 microtopography TOTAL SCORE Category based on score breakpoints 31,5 Modified Z

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet



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

Choose one	Category 1	Category 2	Category 3
------------	------------	------------	------------

End of Ohio Rapid Assessment Method for Wetlands.

LEMASTER-LICK 138 KV TRANSMISSION LINE RELOCATION PROJECT, ATHENS COUNTY, OHIO

D.3 HHEI AND QHEI DATA FORMS



OhioEPA

Hanley Run Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

OHEI Score.	53	
		الإس

Stream & Location: Lemaster-Lick 138 KV Tranguission Line RM: Date: 11816
Relocation Project Streum Scorers Full Name & Affillation: A. Knoolek Stantes
River Code: - STORET#: Lat./Long.79.38045 /82.1841 Office verified location
1] SUBSTRATE Check ONLYTwo substrate TYPE BOXES; estimate % or note every type present BEST TYPES POOL RIFFLE OTHER TYPES BLDR /SLABS [10]
quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.
3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY HIGH [4]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average) River right looking downstream RIPARIAN WIDTH FLOOD PLAIN QUALITY FLOOD PLAIN QUALITY FOREST SWAMP [3] SHRUB OR OLD FIELD [2] SHRUB OR OLD FIELD [2] RESIDENTIAL, PARK, NEW FIELD [1] REAVY / SEVERE [1] REAVY / SEVERE [1] RONNE [0] OPEN PASTURE, ROWCROP [0] Comments Avainum Maximum To
5] POOL / GLIDE AND RIFFLE / RUN QUALITY MAXIMUM DEPTH Check ONE (ONLY!) Check ONE (ONLY!) Check ONE (Or 2 & average) Check ALL that apply Contact Secondary Contact (circle one and comment on back) Comments Recreation Potential Primary Contact Secondary Contact (circle one and comment on back) Comments Comments
Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average). RIFFLE DEPTH BEST AREAS > 10cm [2]
6] GRADIENT (UO % ft/mi) UVERY LOW - LOW [2-4] DRAINAGE AREA MODERATE [6-10] (5 9% mi ²) HIGH - VERY HIGH [10-6] WPOOL: 35 %GLIDE: 10 Gradient Maximum 10

AJ SAMPLED REACH Check ALL that apply Comment RE: Reach consistency/ I	is reach typical of steam?, Recreation	n/ Observed - Interred, Othe	r/ Sampling observations, Concerns, Acc	ess directions, etc.
METHOD STAGE				
BOAT 1st-sample pass- 2nd WADE HIGH				
LLINE OUP O				
DISTANCE CLOW C				
DISTANCE	DJ MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	E] ISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	FI MEASUREMENTS \(\overline{x} \) width \(\overline{x} \) depth \(\overline{x} \) bankfull width bankfull \(\overline{x} \) depth WD ratio bankfull max. depth floodprone \(x^2 \) width entrench. ratio Legacy Tree:
Stream Drawing:			014wsm212.0'	
			13 K - 1810	
	filming to	756		
2.pores	fores &	The state of the s	ootwood wood work to the sent	1055
•				

Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

LENGTH OF STREAM REACH (F) 200 L DATE 1/8/6 SCORER ATK NOTE: Complete All Items On This Form	AT.39.37534 LONG. 42.1834 RIVER CODE RIVER MILE COMMENTS	ctions
STREAM CHANNEL IN NONE / NATE MODIFICATIONS:	URAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERING	VERY
(Max of 40). Add total number of significat		HHEI Metric Points Substrate Max = 40 A + B
2. Maximum Pool Depth (Measure the ma. evaluation. Avoid plunge pools from road > 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts] > 10 - 22.5 cm [25 pts] COMMENTS	ximum pool depth within the 61 meter (200 ft) evaluation reach at the time of culverts or storm water pipes) (Check ONLY one box):	Pool Depth Max = 30
3. BANK FULL WIDTH (Measured as the a > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] COMMENTS	Check ONLY one box):	Bankfull Width Max=30
RIPARIAN ZONE AND FLOODPI RIPARIAN WIDTH (Per Bank) Wide >10m Moderate 5-10m Narrow <5m None COMMENTS	This information must also be completed AIN QUALITY ANOTE: River Left (L) and Right (R) as looking downstream FLOODPLAIN QUALITY L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field Residential, Park, New Field Fenced Pasture Mining or Construction	
FLOW REGIME (At Time of Evaluation Stream Flowing Subsurface flow with isolated pools COMMENTS SINUOSITY (Number of bends per None 0.5 STREAM GRADIENT ESTIMATE Flat (0.5 f/100 ft) Flat to Moderate	Moist Channel, isolated pools, no flow (Intermittent) (Interstitial) Dry channel, no water (Ephemeral)	+

	No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED L	USE(S) Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF	MAPS, INCLUDING THE <u>ENTIRE</u> WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Athens	Township/City. The Plains
MISCELLANEOUS	
	11/2/2011
Base Flow Conditions? (Y/N): Dat	te of last precipitation: 11/3/2016 Quantity: 0 1
Photograph Information:	
Elevated Turbidity? (Y/N):	anopy (% open):
	? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dis	solved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the	stream (Y/N) If not, please explain:
Additional comments/description of pollution	n impacts:
BIOTIC EVALUATION	
V	
	ord all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site
Performed? (Y/N): Y (If Yes, Reco	Include appropriate field date wheels from the Dating of the United States
ID number.	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
ID number. Fish Observed? (Y/N) Voucher? (Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y(N) Salamanders Observed? (Y(N) A Voyabor? (Y(N))
Fish Observed? (Y/N) Voucher? (Y/N) Y	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Y/N) Y	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y(N) Salamanders Observed? (Y(N) A Voyabor? (Y(N))
Fish Observed? (Y/N) Voucher? (Y/N) Y	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) / Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) / Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Y/N) Y	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) / Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) / Voucher? (Y/N)
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology.	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (YR) Youcher? (YR) Youcher? (YR) Y Comments Regarding Biology: 4 CEC	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) YN) Salamanders Observed? (Y/N) Voucher? (Y/N) Youcher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Olgichete, Coddis Fly ATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Fish Observed? (Y/N) Voucher? (YR) Youcher? (YR) Youcher? (YR) Y Comments Regarding Biology: 4 CEC	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (YR) Youcher? (YR) Youcher? (YR) Y Comments Regarding Biology: 4 CEC	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) YN) Salamanders Observed? (Y/N) Voucher? (Y/N) Youcher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Olgichete, Coddis Fly ATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Fish Observed? (Y/N) Voucher? (Yrogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology: 4 Ceen	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) YN) Salamanders Observed? (Y/N) Voucher? (Y/N) Youcher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Olgichete, Coddis Fly ATIVE DESCRIPTION OF STREAM REACH (This must be completed):
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology. GCEEN DRAWING AND NARRA Include important landmarks and of	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology. GCEEN DRAWING AND NARRA Include important landmarks and of	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology. GCEEN DRAWING AND NARRA Include important landmarks and of	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology. GCEEN DRAWING AND NARRA Include important landmarks and of	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology. GCEEN DRAWING AND NARRA Include important landmarks and of	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology. GCEEN DRAWING AND NARRA Include important landmarks and of	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y(N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (Frogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology. GCEEN DRAWING AND NARRA Include important landmarks and of	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y(N) Salamanders Observed? (Y/N) Voucher? (Y/
Fish Observed? (Y/N) Voucher? (Yrogs or Tadpoles Observed? (Y/N) Y Comments Regarding Biology: 4 Ceen	Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) Y/N) Salamanders Observed? (Y/N) Voucher? (Y/

Athens Co. 04

Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score:



1 1 / 0	and the same of th	The second secon	ausmission Line		1 10 1 06 201
Relocation 1	roject st		ers Full Name & Affiliation:		tec
River Code:		STORET #:	Lat./ Long.: 19 . 38430	8°N 182.17988°W	Office verified location
BEST TYP BLDR /SLABS BOULDER [9] COBBLE [8] GRAVEL [7] SAND [6] BEDROCK [5] NUMBER OF BE	estimate % or note ever the stimate of the stimate	OTHER TYPES OTHER	ORIGIN LIMESTONE [1] TILLS [1] WETLANDS [0] HARDPAN [0] SANDSTONE [0]	ONE (Or 2 & average) QUALITY HEAVY [-2] MODERATE NORMAL [0] FREE [1] MODERATE MODERATE NORMAL [0] NONE [1]	[-1] Substrate
quality; 3-Highest quality; 3-Hi	quality; 2-Mo pality in moderate or g stable, well developed ANKS [1] NG VEGETATION [1] IN SLOW WATER) [1	preater amounts, but not or preater amounts (e.g., very 1 rootwad in deep / fast wat POOLS > 70cm ROOTWADS [1]		Check ONE (Or 2 pools. EXTENSIVE >7 RS [1] MODERATE 25 TES [1] SPARSE 5-<25 BRIS [1] NEARLY ABSE	& average) 5% [11] -75% [7] % [3]
3] CHANNEL MC SINUOSITY HIGH [4] MODERATE [3] LOW [2] NONE [1] Comments	PRPHOLOGY Che DEVELOPMENT EXCELLENT [7] GOOD [5] FAIR [3] POOR [1]		FION STABILITY ☐ HIGH [3] ☐ MODERATE [2] ☐ LOW [1]		hannel kximum 20
River right looking do REROSION RONE / LITTLE MODERATE [2]	Winstream RIPA	RIAN WIDTH > 50m [4]	n each category for <i>EACH BANK</i> (O. FLOOD PLAIN QUALI) FOREST, SWAMP [3] SHRUB OR OLD FIELD [2] RESIDENTIAL, PARK, NEW FIELD FENCED PASTURE [1] OPEN PASTURE, ROWCROP [0]	TY R CONSERVATION URBAN OR INDUS [1] MINING / CONSTR Indicate predominant land past 100m riparian. Ri	STRIAL [0] EUCTION [0]
5] POOL / GLIDE MAXIMUM DE Check ONE (ONE > 1m [6] 0.7-<1m [4] 0.4-<0.7m [2] 0.2-<0.4m [1] < 0.2m [0] Comments	PTH CHA LYI) Check C D POOL WID POOL WID POOL WID	NNEL WIDTH ONE (Or 2 & average) TH > RIFFLE WIDTH [2] TH = RIFFLE WIDTH [1] TH > RIFFLE WIDTH [0]	CURRENT VELOCITY Check ALL that apply TORRENTIAL [-1] SLOW [1] VERY FAST [1] INTERSTIT FAST [1] INTERMIT MODERATE [1] EDDIES [1] MINIMAL CONTROL OF THE CONTROL OF TH	TIAL [-1] TENT [-2] Iffles.	ontact Contact
of riffle-oblig RIFFLE DEPT BEST AREAS > 10 BEST AREAS 5-10 BEST AREAS < 5 [me Comments	gate species: IH RUN Icm [2]	Check ON DEPTH RIFFLI IM > 50cm [2] [3] STABLE IM < 50cm [1] [1] MOD. S'	E (e.g., Cobble, Boulder) [2] TABLE (e.g., Large Gravel) [1] BLE (e.g., Fine Gravel, Sand) [0]	FLE / RUN EMBEDDED NONE [2] LOW [1] MODERATE [0] EXTENSIVE [-1] ME	Riffle / 6
DRAINAGE A	REA DM	ERY LOW - LOW [2-4] ODERATE [6-10] IGH - VERY HIGH [10-6]	%POOL: (120) % RUN: (36)		7adient 8 ximum 10 06/16/06

Check ALL that apply METHOD STAGE BOAT 1st -sample pass-2nd	Comment RE: Reach consistency/ I	Is reach typical of steam?, Recreation	n/ Observed - Inferred, <i>Other</i>	√ Sampling observations, Concerns, Acc	
□ 0.5 Km □ 0.2 Km □ 0.15 Km □ 0.15 Km □ 0.12 Km □ 0.12 Km □ 0.12 Km □ 0.12 Km □ 20 cm □ 20 c40 cm □ 20 c70 cm □ □ 70 cm/ CTB □ > 70 cm/ CTB □ SECCHI DEPTH□ CANOPY □ SECCHI DEPTH□ Cm □ S55% - 85% □ 30% - 55% □ 10% - C10SED □ CI RECRE	B] AESTHETICS NUISANCE ALGAE INVASIVE MACROPHYTES EXCESS TURBIDITY DISCOLORATION FOAM / SCUM OIL SHEEN TRASH / LITTER NUISANCE ODOR SLUDGE DEPOSITS CSOS/SSOS/OUTFALLS ATION AREA DEPTH POOL: >100ft2 >3ft	DJ MAINTENANCE PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	EJISSUES WWTP / CSO / NPDES / INDUSTRY HARDENED / URBAN / DIRT&GRIME CONTAMINATED / LANDFILL BMPs-CONSTRUCTION-SEDIMENT LOGGING / IRRIGATION / COOLING BANK / EROSION / SURFACE FALSE BANK / MANURE / LAGOON WASH H ₂ 0 / TILE / H ₂ 0 TABLE ACID / MINE / QUARRY / FLOW NATURAL / WETLAND / STAGNANT PARK / GOLF / LAWN / HOME ATMOSPHERE / DATA PAUCITY	F] MEASUREMENTS
	twm 12' H = 9" 08 17' H = 13"	N >	ROU	d	
		Rub us, etc	7		
NA.	Some over	ZUN >	>> \(\frac{1}{2} \)	· · ·	RUN
~~~~			ROW		
			κ0ω		
4				229	forest

Amens Co. ) OH

Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

upstream

QHEI Score: 55.5

Stream & Location: Lemuster-Lick 138 KV Trans	
Relocation Project Stream 3 Scorers Full.	Name & Affiliation. Judy Nicholson Stantec
River Code: STORET #: Lat.	/Long. 39 319355 N48 2. 114 431°W Office verified location
1] SUBSTRATE Check ONLYTwo substrate TYPE BOXES; estimate % or note every type present	Check ONE (Or 2 & average)
BEST TYPES POOL RIFFLE OTHER TYPES POOL RIFFL	_ ORIGIN QUALITY
□□ BLDR /SLABS [10] □ □ HARDPAN [4]	LIMESTONE [1] HEAVY [-2]  MODERATE [-1] Substrate
	- MITTLES [1] SILT MODERATE [-1] Substitute  WETLANDS [0] SILT NORMAL [0]
GRAVEL [7]	□ HARDPAN [0] □ FREE [1] / 4
SAND [6] 65 65 CScore natural substrates; igno	SANDSTONE [0]   EXTENSIVE [-2]   Maximum   SS   NORMAL [0]   20 / SS   NONE [1]
NUMBER OF BEST TYPES: 4 or more [2] sludge from point-source	s)   LACUSTURINE [0]   Maximum   Maximum   20 /
Comments [0]	☐ SHALE [-1] ☐ NONE [1] ☐ COAL FINES [-2]
13	
2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small a quality; 2-Moderate amounts, but not of highest quality;	
quality 3. Highest quality in moderate or greater amounts (e.g., very large bould	ders in deep or last water, large
diameter log that is stable, well developed rootwad in deep / fast water, or deep	OXBOWS, BACKWATERS [1] MODERATE 25-75% [7]
VOVERHANGING VEGETATION [1] ROOTWADS [1]	AQUATIC MACROPHYTES [1] SPARSE 5-<25% [3]
SHALLOWS (IN SLOW WATER) [1]  BOULDERS [1]  NOTMATS [1]	LOGS OR WOODY DEBRIS [1] NEARLY ABSENT <5% [1]
Comments	Cover Maximum 14 Z
	20
3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & ave	
SINUOSITY DEVELOPMENT CHANNELIZATION	STABILITY
☐ HIGH [4] ☐ EXCELLENT [7] ☐ NONE [6] ☐ MODERATE [3] ☐ GOOD [5] ☐ RECOVERED [4]	(X) MODERATE [2]
LOW [2] FAIR [3] RECOVERING [3]	LOW [1]
□ NONE [1] □ RECENT OR NO RECOVERY	
Comments	Maximum 9
Comments '	Waxinum 20
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate	egory for <i>EACH BANK</i> (Or 2 per bank & average)
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH L R	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  R
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]  CONSERVATION TILLAGE [1]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION WIDE > 50m [4] FOREST, NONE / LITTLE [3] MODERATE 10-50m [3] SHRUB (3) MODERATE [2] RESIDEN	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION   WIDE > 50m [4]   FOREST, NONE / LITTLE [3]   MODERATE 10-50m [3]   SHRUB (Construction of the construction of t	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL RIPARIAN WIDTH	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  , SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL RIPARIAN WIDTH	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]  OR OLD FIELD [2]  ITIAL, PARK, NEW FIELD [1]  PASTURE [1]  ASTURE, ROWCROP [0]  Description of the period of the period of the past 100m riparian.  Riparian
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION   WIDE > 50m [4]   FOREST   SOUTH FOREST	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]  OR OLD FIELD [2]  ITIAL, PARK, NEW FIELD [1]  PASTURE [1]  ASTURE, ROWCROP [0]  OR OLD FIELD [2]  Indicate predominant land use(s) past 100m riparian.  Riparian Maximum  10
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION   WIDE > 50m [4]   FOREST   STATE   S	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION   WIDE > 50m [4]   FOREST   STATE   S	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]  OR OLD FIELD [2]  INTIAL, PARK, NEW FIELD [1]  PASTURE [1]  ASTURE, ROWCROP [0]  OR OLD FIELD [2]  INDICATE PRODUCTION [0]  Indicate predominant land use(s) past 100m riparian.  Riparian Maximum 10  Recreation Potential Primary Contact Secondary Contact Secondary Contact
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH  EROSION   WIDE > 50m [4]   FOREST, STATE   FOREST, STA	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]  OR OLD FIELD [2]  INTIAL, PARK, NEW FIELD [1]  ASTURE, ROWCROP [0]  OPASTURE [1]  ASTURE, ROWCROP [0]  OPASTURE, ROWCROP [0]  OPASTURE [1]  ASTURE, ROWCROP [0]  OPASTURE [1]  OP
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL RIPARIAN WIDTH CL CL CL RIPARIAN WIDTH FL RIPARIAN	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL RIPARIAN WIDTH FL RIFFLE WIDTH GLOCK ONE in each cate River right looking downstream RIPARIAN WIDTH FL RIFFLE WIDTH GLOCK ONE (I) FOREST, WIDE > 50m [4] FOREST, SHRUB (I) MODERATE [2] MODERATE [1] MODERATE [1] RESIDEN OPEN PARTICLE OF THE PROCED OPEN PARTICLE	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL RIPARIAN WIDTH FL RIFFLE WIDTH SHRUBS OF THE RIPARIAN WIDTH FL RIFFLE WIDTH CLOCK ONE (DILLY) Check ONE (ONLY!) Check ONE (Or 2 & average) POOL WIDTH > RIFFLE WIDTH (DILLY) COmments POOL WIDTH > RIFFLE WIDTH (DILLY) Check ONE (ONLY!) Check ONE (Or 2 & average) POOL WIDTH > RIFFLE WIDTH (DILLY) Check ONE (ONLY!) POOL WIDTH > RIFFLE WIDTH (DILLY) COMMENTS (DILLY) POOL WIDTH > RIFFLE WIDTH (DILLY) POOL WIDTH >	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL. R	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL ROSION   WIDE > 50m [4]   FOREST   SHRUB (1)   SHRUB (2)   SHRUB (3)   SHRUB (4)   SHRUB (4)	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL PROSION   WIDE > 50m [4]   FOREST, SHRUB & S	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL PROSION   WIDE > 50m [4]   FOREST   SHRUB (IN MODERATE [2]   MODERATE 10-50m [3]   RESIDEN   SHRUB (IN MODERATE [2]   NARROW 5-10m [2]   RESIDEN   SHRUB (IN MODERATE [2]   NARROW 5-10m [2]   RESIDEN   SHRUB (IN MODERATE [2]   NARROW 5-10m [2]   RESIDEN   SHRUB (IN MODERATE [2]   NONE [0]   PENCED   OPEN PARTICLE (IN MODE [0]   OPEN PARTICLE (I	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each cate River right looking downstream RIPARIAN WIDTH FL PROSION   WIDE > 50m [4]   FOREST, SHRUB & S	egory for EACH BANK (Or 2 per bank & average)  OOD PLAIN QUALITY  SWAMP [3]

Check ALL that apply  METHOD STAGE  BOAT 1st -sample pass- 2nd - WADE HIGH				/ Sampling observations, Concerns, Acc	ess directions, etc.
LOW	BJAESTHETICS  NUISANCE ALGAE INVASIVE MACROPHYTES EXCESS TURBIDITY DISCOLORATION FOAM / SCUM OIL SHEEN TRASH / LITTER NUISANCE ODOR SLUDGE DEPOSITS CSOs/SSOs/OUTFALLS  ATION AREA DEPTH POOL: >100ft2 > 3ft	DJ MAINTENANCE  PUBLIC / PRIVATE / BOTH / NA ACTIVE / HISTORIC / BOTH / NA YOUNG-SUCCESSION-OLD SPRAY / SNAG / REMOVED MODIFIED / DIPPED OUT / NA LEVEED / ONE SIDED RELOCATED / CUTOFFS MOVING-BEDLOAD-STABLE ARMOURED / SLUMPS ISLANDS / SCOURED IMPOUNDED / DESICCATED FLOOD CONTROL / DRAINAGE	Circle some & COMMENT	E] /SSUES  WWTP / CSO / NPDES / INDUSTRY  HARDENED / URBAN / DIRT&GRIME  CONTAMINATED / LANDFILL  BMPs-CONSTRUCTION-SEDIMENT  LOGGING / IRRIGATION / COOLING  BANK / EROSION / SURFACE  FALSE BANK / MANURE / LAGOON  WASH H ₂ 0 / TILE / H ₂ 0 TABLE  ACID / MINE / QUARRY / FLOW  NATURAL / WETLAND / STAGNANT  PARK / GOLF / LAWN / HOME  ATMOSPHERE / DATA PAUCITY	FIMEASUREMENTS  x width x depth max. depth x bankfull width bankfull x depth W/D ratio bankfull max. depth floodprone x² width entrench. ratio Legacy Tree:
Stream Drawing:	<u></u>	2*	d growth		
7	4		Vo.		
		. 0	unl		1
Run	Hamters		m 11' Depth 8	.4	RUN
Run			m 11' Depth 8	2nd growth forces	Run

### Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3): SITE NAME LOCATION LEMMA LOT - LICK 138 LV TRANSMISSION LINE RELOCATION PROJECT Athens Co, OH SITE NUMBER STEEMY RIVER BASIN HOCKING DRAINAGE AREA (mi2) 40 1mi LAT. 39,381709" LONG. 82.17/607" RIVER CODE LENGTH OF STREAM REACH (ft) 100 DATE 10FE BROTT SCORER SN/KB NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions □ NONE / NATURAL CHANNEL Ø RECOVERED □ RECOVERING □ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 40), Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric TYPE TYPE PERCENT PERCENT **Points** BLDR SLABS [16 pts] SILT [3 pt] ŌŌ BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] Substrate FINE DETRITUS [3 pts] BEDROCK [16 pt] Max = 402.5 CLAY or HARDPAN [0 pt] COBBLE (65-256 mm) [12 pts] 2.5 GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 22 HD SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) $\varnothing$ Bidr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of **Pool Depth** evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] 15 > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] П > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] COMMENTS MAXIMUM POOL DEPTH (centimeters): BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bankfull > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width > 4.0 meters (> 13') [30 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] Max=30 $\bar{\Box}$ > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] ,8 COMMENTS OHWN 31 H 3" **AVERAGE BANKFULL WIDTH (meters)** This information must also be completed ♣NOTE: River Left (L) and Right (R) as looking downstream ♣ RIPARIAN ZONE AND FLOODPLAIN QUALITY FLOODPLAIN QUALITY RIPARIAN WIDTH (Per Bank) (Most Predominant per Bank) **M M** 囡囡 Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old 团团 ПП Moderate 5-10m Urban or Industrial Open Pasture, Row oo Residential, Park, New Field Narrow <5m Crop пп None Fenced Pasture Mining or Construction COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box):

☐ Moderate (2 ft/100 ft)

П

(Check ONLY one box): 2.0

Moderate to Severe

Moist Channel, isolated pools, no flow (Intermittent)

3.0

Severe (10 ft/100 ft)

Dry channel, no water (Ephemeral)

Flat (0.5 ft/100 ft)

Stream Flowing

STREAM GRADIENT ESTIMATE

☐ Flat to Moderate

None

0.5

Subsurface flow with isolated pools (Interstitial)

STREAM

1.0

SINUOSITY (Number of bends per 61 m (200 ft) of channel)

ADDITIONAL STREAM INFORMATION (This information Must Also be Complete	ed):
QHEI PERFORMED? - TYes TY No QHEI Score (If Yes	s, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)  WWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATER:	SHED AREA. CLEARLY MARK THE SITE LOCATION
JSGS Quadrangle Name: Nelsonalle NRCS Soil I	Map Page: NRCS Soil Map Stream Order
County:	pothens
MISCELLANEOUS	
Base Flow Conditions? (Y/N): Y Date of last precipitation: 29 20	Quantity:  " snow
Photograph Information:	
Elevated Turbidity? (Y/N): Canopy (% open):	
Were samples collected for water chemistry? (Y/N):(Note lab sample no. c	or id. and attach results) Lab Number:
Field Measures: Temp (°C)Dissolved Oxygen (mg/l) pH (S	1
s the sampling reach representative of the stream (Y/N) Y If not, please explain	
BIOTIC EVALUATION  Performed? (Y/N): (If Yes, Record all observations. Voucher collections of ID number. Include appropriate field data sheets from I	the Primary Headwater Habitat Assessment Manual)  N)
DRAWING AND NARRATIVE DESCRIPTION OF STRE	AM REACH (This <u>must</u> be completed):
Include Important landmarks and other features of Interest for site evaluat	cion and a narrative description of the stream's location
FLOW →	Quinty.

### Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3): SITE NAMELOCATION LEMASSET - LICK 138 KV Transmission Line Relocation Project LENGTH OF STREAM REACH (#) 100 LAT 39, 385194 LONG 81.172549 RIVER CODE DRAINAGE AREA (mi²) ___O.\mi RIVER MILE SNIKG DATE (O) SCORER NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions □ NONE / NATURAL CHANNEL Ø RECOVERED □ RECOVERING □ RECENT OR NO RECOVERY STREAM CHANNEL MODIFICATIONS: SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **PERCENT TYPE** PERCENT **TYPE Points** SILT (3 pt) BLDR SLABS [16 pts] OO LEAF PACK/WOODY DEBRIS [3 pts] BOULDER (>256 mm) [16 pts] Substrate oo FINE DETRITUS [3 pts] BEDROCK [16 pt] Max = 40oo CLAY or HARDPAN [0 pt] COBBLE (65-256 mm) [12 pts] GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] (B) Total of Percentages of A+B Bldr Slabs, Boulder, Cobble, Bedrock SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: TOTAL NUMBER OF SUBSTRATE TYPES: **Pool Depth** Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 5 cm - 10 cm [15 pts] > 30 centimeters [20 pts] 25 > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] COMMENTS **MAXIMUM POOL DEPTH (centimeters):** Bankfull (Check ONLY one box): BANK FULL WIDTH (Measured as the average of 3-4 measurements) > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width $\overline{\Box}$ Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] ≤ 1.0 m (≤ 3' 3") [5 pts] Ō > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts] 7.4 0 Hwm 31711 LIT **AVERAGE BANKFULL WIDTH (meters)** COMMENTS This information must also be completed ☆NOTE: River Left (L) and Right (R) as looking downstream☆ RIPARIAN ZONE AND FLOODPLAIN QUALITY FLOODPLAIN QUALITY RIPARIAN WIDTH (Most Predominant per Bank) (Per Bank) 囟囟 Mature Forest, Wetland Conservation Tillage Wide >10m Immature Forest, Shrub or Old 图图 Urban or Industrial Moderate 5-10m Open Pasture, Row Residential, Park, New Field Narrow <5m Crop Fenced Pasture Mining or Construction None COMMENTS FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Moist Channel, isolated pools, no flow (Intermittent) Stream Flowing Dry channel, no water (Ephemeral) Subsurface flow with isolated pools (Interstitial) (Check ONLY one box): SINUOSITY (Number of bends per 61 m (200 ft) of channel) 2.0 3.0 None 1.0

1.5

☐ Moderate (2 ft/100 ft)

П

Moderate to Severe

Severe (10 ft/100 ft)

Flat (0.5 ft/100 ft)

0.5

STREAM GRADIENT ESTIMATE

☐ Flat to Moderate



	f Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
DOWNSTREAM DESIGNATED USE(S)  WWH Name: Hamley Run  CWH Name:	Distance from Evaluated Stream Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream
J EWH Name:	Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WA	TERSHED AREA. CLEARLY MARK THE SITE LOCATION
SGS Quadrangle Name: Nelsonville NRCS	
ounty: Township / City	Athens
MISCELLANEOUS	
ase Flow Conditions? (Y/N): Y Date of last precipitation: 2/9/10	Quantity: "  Show
notograph Information:	
levated Turbidity? (Y/N): N Canopy (% open): 95	
vere samples collected for water chemistry? (Y/N): (Note lab sample	no. or id. and attach results) Lab Number:
ield Measures: Temp (°C) Dissolved Oxygen (mg/l) pl	H (S.U.)Conductivity (µmhos/cm)
the sampling reach representative of the stream (Y/N) If not, please e.	xplain:
dditional comments/description of pollution impacts:	
BIOTIC EVALUATION	
BIOTIC EVALUATION	
erformed? (Y/N): (If Yes, Record all observations. Voucher collection	ons optional. NOTE; all voucher samples must be labeled with the
ID number. Include appropriate field data sheets f	from the Primary Headwater Habitat Assessment Manual)
	from the Primary Headwater Habitat Assessment Manual)
sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqualic Macrol	from the Primary Headwater Habitat Assessment Manual)
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqualic Macrol	from the Primary Headwater Habitat Assessment Manual)
sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqualic Macrol	from the Primary Headwater Habitat Assessment Manual)
sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? ogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqualic Macrol	from the Primary Headwater Habitat Assessment Manual)
sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi omments Regarding Biology:	(Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi omments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST	(Y/N) Voucher? (Y/N)
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aqualic Macroi comments Regarding Biology:	(Y/N) Voucher? (Y/N)
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi omments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST	TREAM REACH (This must be completed):
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi omments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST	TREAM REACH (This must be completed):
sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macros omments Regarding Biology.  DRAWING AND NARRATIVE DESCRIPTION OF ST	TREAM REACH (This must be completed):
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi omments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST	(Y/N) Voucher? (Y/N)
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi comments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST Include Important landmarks and other features of Interest for site evaluations.	(Y/N) Voucher? (Y/N)
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macroi comments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST Include Important landmarks and other features of interest for site evaluations.	(Y/N) Voucher? (Y/N)
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macros comments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST Include Important landmarks and other features of Interest for site evaluations.	TREAM REACH (This must be completed):
DRAWING AND NARRATIVE DESCRIPTION OF ST Include Important landmarks and other features of interest for site evaluations.	TREAM REACH (This must be completed):
DRAWING AND NARRATIVE DESCRIPTION OF ST Include Important landmarks and other features of Interest for site eva	(Y/N) Voucher? (Y/N)
DRAWING AND NARRATIVE DESCRIPTION OF ST Include Important landmarks and other features of Interest for site eva	TREAM REACH (This must be completed):
ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? rogs or Tadpoles Observed? (Y/N) Voucher? (Y/N) Aquatic Macro Comments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF ST Include Important landmarks and other features of Interest for site evaluations.	TREAM REACH (This must be completed):

## Chieff Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

SITE NAMELOCATION CENTRE - LICK 138 KV Transmission Line Relevation Project  Athers C), O'H SITE NUMBER - LICK 138 KV Transmission Line Relevation Project  LENGTH OF STREAM REACH (ft) 100 LAT 39 391347 LONG. 17 1178 RIVER CODE RIVER MILE  DATE (0 FR 2017 SCORER 3N/KB COMMENTS COMMENTS ROTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	_
STREAM CHANNEL NONE / NATURAL CHANNEL RECOVERED RECOVERING RECENT OR NO RECOVERY MODIFICATIONS:	Y
Max of 40). Add total number of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of some of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types found (wax of 6). Final metric score is sain of significant substrate types for significant substrate types for significant substrate types for significant substrate types for significant subs	HEI etric pints betrate ax = 40
7 Maximum Phot Denth (Meastine the maximum boot depth within the or meter (200 to ordination town at the time to	ol Depth ax = 30
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):  Bank Full Width (Measured as the average of 3-4 measurements) (Check ONLY one box):  Bank Full Width (Measured as the average of 3-4 measurements) (Check ONLY one box):  Bank Full Width (Measured as the average of 3-4 measurements) (Check ONLY one box):  Bank Full Width (Measured as the average of 3-4 measurements) (Check ONLY one box):	ankfull Width ax=30
This Information must also be completed  RIPARIAN ZONE AND FLOODPLAIN QUALITY &NOTE: River Left (L) and Right (R) as looking downstream & RIPARIAN WIDTH  R (Per Bank)	
FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Subsurface flow with isolated pools (Interstitial) COMMENTS  SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None  1.0  None  1.0  None  None  None  None  Check ONLY one box): 3.0	
STREAM GRADIENT ESTIMATE  SITE AND GRADIENT ESTIMATE  Float 40 5 84400 ft)  Moderate 12 11/100 ft)  Moderate to Severe  Moderate to Severe	

Stream

DOWNSTREAM DESIGNATED USE(S)  WWH Name:	QHEI PERFORMED? - Tyes 🎁 No QHEI Score(If Ye	es, Attach Completed QHEI Form)
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION SGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order ounly: N	/ DOWNSTREAM DESIGNATED USE(S)	
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION SGS Quadrangle Name:    NRCS Soil Map Page:   NRCS Soil Map Stream Order	WWH Name: Hamley Run	Distance from Evaluated Stream 40.1 m
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION SGS Quadrangle Name: NRCS Soil Map Page: NRCS Soil Map Stream Order ounly: N	J CWH Name:	Distance from Evaluated Stream
NRCS Soil Map Page: NRCS Soil Map Stream Order N	S CANTITUTIO.	Distance from Evaluated Stream
NRCS Soil Map Page: NRCS Soil Map Stream Order Ounty: NRCS Soil Map Stream Order NRCS Soil Map Stream	MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATER	RSHED AREA. CLEARLY MARK THE SITE LOCATION
MISCELLANEOUS  ase Flow Conditions? (Y/N): Date of last precipitation: 2	SGS Quadrangle Name: NELSONNIE NRCS Soil	I Map Page: NRCS Soil Map Stream Order
ase Flow Conditions? (Y/N): Date of last precipitation: Quantity Ouantity	ounty:ATHEN) Township / City	Athens
evated Turbidity? (Y/N): Canopy (% open):		
levated Turbidity? (Y/N):	BSE Flow Conditions? (V/N): Y	7
levated Turbidity? (Y/N): Canopy (% open):		Quantity: 1 Shaw
Active samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number: (Note lab sample no. or id. and attach results) Lab Number: (Note lab sample no. or id. and attach results) Lab Number: (Note lab sample no. or id. and attach results) Lab Number: (Proc		
idditional comments/description of pollution impacts:    BIOTIC EVALUATION		
idditional comments/description of pollution impacts:    BIOTIC EVALUATION	/ere samples collected for water chemistry? (Y/N): (Note lab sample no.	or id. and attach results) Lab Number:
BIOTIC EVALUATION  erformed? (Y/N):	ield Measures: Tomp (PC)	
BIOTIC EVALUATION  erformed? (Y/N): (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)  sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) omments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location.		
BIOTIC EVALUATION  erformed? (Y/N):	the sampling reach representative of the stream (Y/N)_Y If not, please expla	in/
BIOTIC EVALUATION  erformed? (Y/N):		
BIOTIC EVALUATION  erformed? (Y/N):Y (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual) is high Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Omments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location.	dditional commented as wisting of the state	
erformed? (Y/N):	additional comments/description of pollution impacts:	
erformed? (Y/N):		
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)  Ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location.	BIOTIC EVALUATION	
ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)  Ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Observed? (Y/N) Voucher? (Y/N) Voucher? (Y/N) Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location.		
Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertebrates Observed? (Y/N) Voucher? (Y/N) Comments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):  Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location of the	orformed 2 (V/N):	
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):  Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location		optional. NOTE: all voucher samples must be labeled with th
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number. Include appropriate field data sheets from	the Primary Headwater Habitat Assessment Manual)
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed): Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) / Salamanders Observed? (Y/N)	the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvel	the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number. Include appropriate field data sheets from ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvel	the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvel	the Primary Headwater Habitat Assessment Manual)
Include Important landmarks and other features of Interest for site evaluation and a narrative description of the stream's location	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvel	the Primary Headwater Habitat Assessment Manual)
2000AT 3000AT 30	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Salamanders Observed? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinvel comments Regarding Biology:	the Primary Headwater Habitat Assessment Manual)  (N) N Voucher? (Y/N) Voucher? (Y/N) Voucher? (Y/N)
10W -> (3E370) 3	ID number. Include appropriate field data sheets from sheets from Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinver omments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
LOW	ID number. Include appropriate field data sheets from ship of the control of the	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
LOW	ID number. Include appropriate field data sheets from she hoserved? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertomments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluation.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
LOW T	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertomments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluation.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
LOW T	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertomments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluation.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertomments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluation.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
Walter Thought	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinversomments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluations.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
MENTAL STRUCTURE	ID number. Include appropriate field data sheets from which Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertions Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluations.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
( Chings )	ID number. Include appropriate field data sheets from which Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertions Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluations.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
	In number. Include appropriate field data sheets from ish Observed? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinversionments Regarding Biology: Aquatic Macroinversionments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluations.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
	ID number. Include appropriate field data sheets from which Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinvertions Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluations.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macroinversomments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluation.	the Primary Headwater Habitat Assessment Manual)  N) N Voucher? (Y/N) / Vo
	ID number. Include appropriate field data sheets from sh Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macroinversomments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF STRE Include Important landmarks and other features of Interest for site evaluation.	the Primary Headwater Habitat Assessment Manual)  (N) N Voucher? (Y/N) Voucher? (Y/N) /  thebrates Observed? (Y/N) Voucher? (Y/N) /  (AM REACH (This must be completed):

## LETTER OF NOTIFICATION FOR LEMASTER-LICK 138 KV TRANSMISSION LINE RELOCATION PROJECT

Appendix D Structure Design and Phasing Diagrams April 3, 2017

Appendix D. Structure Design and Phasing Diagrams

This foregoing document was electronically filed with the Public Utilities

**Commission of Ohio Docketing Information System on** 

4/3/2017 12:04:32 PM

in

Case No(s). 17-0633-EL-BLN

Summary: Letter of Notification 3 of 4 parts electronically filed by Mr. Hector Garcia on behalf of AEP Ohio Transmission Company