

	Lat.: d-Coshocton silt lo	Local relief (col 40.45103977 pams, 15 to 25 per time of the yea	n, Township, Rancave, convex, Long.: ercent slope No Yes X y disturbed?	Sampling Date Sampling Point: Inge S 23 T 12N R 5 none) convex -81.04948464  WI Classification: N/A No (If no, e Are "normal circums present?	u-tmq-05242018-04 W Slope (%): 3 Datum: WGS 84 xplain in remarks
Hydrophytic vegetation present' Hydric soil present?  Wetland hydrology present?  No	_	Is the sam	pled area with	in a wetland? N	lo_
Remarks:  UPLAND area near wetland PB-0 <sup>-/</sup> HYDROLOGY	1 in routinely m	aintained ROV	V.		
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is requestrated Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Aquatic Fauna (B13)	True Aquat Hydrogen S Oxidized R Roots (C3) Presence c Recent Iror Soils (C6) Thin Muck	at apply) ic Plants (B14) Sulfide Odor (C1) hizospheres on Li of Reduced Iron (C n Reduction in Tille Surface (C7) lain in Remarks)	St   St   St   St   St   St   St   St	idary Indicators (minin urface Soil Cracks (B6) parsely Vegetated Conditionage Patterns (B10) poss Trim Lines (B16) by-Season Water Table ayfish Burrows (C8) aturation Visible on Aeri unted or Stressed Planteomorphic Position (D2 hallow Aquitard (D3) crotopographic Relief ( AC-Neutral Test (D5)	(C2) al Imagery (C9) ts (D1)
Field Observations: Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe)  Describe recorded data (stream gauge, mo		Depth (inches): Depth (inches): Depth (inches): al photos, previo		Wetland hydrology present?	N_
Remarks:					

Plot Size ( 30 ft. )
Cover   Species   Status   Iree Stratum   0   0   0   0   0   0   0   0   0
Herb Stratum
Herb Stratum
Woody Vine Stratum
Dominance Test Worksheet   Number of Dominant   Species that are OBL,   FACW, or FAC:   2 (A)
Number of Dominant   Species that are OBL,   FACW, or FAC:   2 (A)
Species that are OBL, FACW, or FAC: 2 (A)
FACW, or FAC:
Description   Dominant   Species Across all Strata:   2   (B)
Plot Size ( 15 ft. )
Prevalence Index Worksheet   Total % Cover of: OBL species   0
Total % Cover of:   OBL species   0
OBL species   O x 1 =   O
OBL species   O x 1 =   O
FACW species   0
FAC species $80 \times 3 = 240$ FACU species $35 \times 4 = 140$ UPL species $25 \times 5 = 125$ Column totals $140 \times 6 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = 140$ UPL species $25 \times 6 = 125 \times 6 = 140 \times 6 = $
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Plot Size ( 5 ft. ) Absolute % Dominant Cover Species Status 45 Y FAC 35 Y FAC a 25 N UPL atum 20 N FACU Prevalence Index = B/A = $\frac{3.61}{3.61}$ Prevalence Index = B/A = $\frac{3.61}{3.61}$ Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation $\frac{X}{X}$ Dominance test is >50% Prevalence index is $\leq 3.0^*$ Morphological adaptations* (provide supporting data in Remarks or on a separatum sheet)
Dominant   Cover   Species   Status   FAC   Absolute %   Species   Status   Text
Plot Size ( 5 ft. ) Absolute % Dominant Cover Species Status 45 Y FAC 35 N UPL Supporting data in Remarks or on a separatum  Absolute % Dominant Species Status Y FAC Prevalence index is ≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separatum sheet)
Plot Size ( 5 ft. ) Absolute % Dominant Species Status rdii 45 Y FAC a 25 N FAC atum 20 N FACU Species Statum Physics Vegetation Indicators:    Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation   X Dominance test is >50%   Prevalence index is≤3.0*   Morphological adaptations* (provide supporting data in Remarks or on a separatum sheet)
Cover Species Status  rdii 45 Y FAC  35 Y FAC  a 25 N UPL  atum 20 N FACU  Cover Species Status X Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separation sheet)
rdii 45 Y FAC Prevalence index is ≤3.0*  35 Y FAC Morphological adaptations* (provide supporting data in Remarks or on a separatum  20 N FACU sheet)
35 Y FAC Morphological adaptations* (provide supporting data in Remarks or on a separatum 20 N FACU sheet)
a 25 N UPL supporting data in Remarks or on a separatum 20 N FACU sheet)
atum 20 N FACU sheet)
nsis 15 N FACU Problematic hydrophytic vegetation*
(explain)
*Indicators of hydric soil and wetland hydrology must b
present, unless disturbed or problematic
Definitions of Vegetation Strata:
Tree - Woody plants 3 in. (7.6 cm) or more in diameter
at breast height (DBH), regardless of height.
Sapling/shrub - Woody plants less than 3 in. DBH and
greater than 3.28 ft (1 m) tall.
140 = Total Cover Herb - All herbaceous (non-woody) plants, regardless
size, and woody plants less than 3.28 ft tall.
Plot Size ( 30 ft. ) Absolute % Dominant Indicator
Cover Species Status Woody vines - All woody vines greater than 3.28 ft in
Hydrophytic
vegetation
0 = Total Cover present? Y
numbers here or on a separate sheet

Sampling Point: u-tmq-05242018-04

Sampling Point: u-tmq-05242018-04

								g				
D - 61 - D	' Cara (Danasil	1- 11	. O the second and the		-1.1b		office the element	(				
	· · · · · · · · · · · · · · · · · · ·	e to the				indicator	or confirm the absence	of indicators.)				
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	lox Feat %		Loc**	Texture	Remarks				
0-12	10 YR 4/3	100	Color (moist)	70	Type*	LUC	loom					
0-12	10 1K 4/3	100					loam					
,,	•		•	I Matrix	, CS=Co	vered or	Coated Sand Grains					
	<u> </u>	ivi–iviati					Indicators for	Problematic Hydric Soils:				
Histisol Histic E Black H Hydroge Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Stripped	**Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:    Dark Surface (S7)											
Restrictive I Type: Depth (inch	_ayer (if observe	d)			<b>-</b> -		Hydric soil prese	ent? N				
Remarks:												

	State Secti Local relief (c Lat.: 40.44841588 to 3 percent slopes, occasiona typical for this time of the yea hydrology significan	Ally flood NWI Ci  Yes X No  ntly disturbed? Are  problematic? pre	Sampling Date 5/2 Sampling Point: Up S 23 T 12N R 5W Convex 1.04951574 lassification: N/A	I-tmq-05242018-03 Slope (%): 3 Datum: WGS 84 ain in remarks
Hydrophytic vegetation present' No Hydric soil present? No Wetland hydrology present? No	Is the sa	mpled area within a v	wetland? No	-
Remarks:  UPLAND area near Wetland PB-02  HYDROLOGY	in routinely maintained RC	DW.		
Wetland Hydrology Indicators:		Secondary	Indicators (minimum	n of two required)
Primary Indicators (minimum of one is require	ed; check all that apply)	Surface	Soil Cracks (B6)	
Surface Water (A1)	True Aquatic Plants (B14)	Sparse	ly Vegetated Concave	Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1	) Drainaç	ge Patterns (B10)	
Saturation (A3)	Oxidized Rhizospheres on	<del></del>	rim Lines (B16)	
Water Marks (B1)	Roots (C3)		ason Water Table (C2	2)
Sediment Deposits (B2)	Presence of Reduced Iron		h Burrows (C8)	-)
Drift Deposits (B3)	Recent Iron Reduction in T	· · · ·	ion Visible on Aerial Ir	magery (C9)
Algal Mat or Crust (B4)	Soils (C6)		d or Stressed Plants (I	
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomo	rphic Position (D2)	
Inundation Visible on Aerial	Other (Explain in Remarks)		v Aquitard (D3)	
Imagery (B7)			pographic Relief (D4)	
Water-Stained Leaves (B9)			eutral Test (D5)	
Aquatic Fauna (B13)			,	
Field Observations:				
Surface water present? Yes	No X Depth (inches	s):	Wetland	
Water table present? Yes	No X Depth (inches		hydrology	
Saturation present? Yes	No X Depth (inches	s):	_	N
(includes capillary fringe)	· · · ·	, <u> </u>		
Describe recorded data (stream gauge, mon	itoring well, aerial photos, prev	ious inspections), if av	⁄aila	
Remarks:				

	Dominant Species  Total Cover  Dominant Species	Indicator Status	20%   50%
0 =	Total Cover	Indicator	Sapling/Shrub Stratum 0 0 Herb Stratum 24 60 Woody Vine Stratum 0 0   Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
0 =	Total Cover		Sapling/Shrub Stratum 0 0 Herb Stratum 24 60 Woody Vine Stratum 0 0   Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
0 =	Total Cover		Herb Stratum 24 60 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
0 =	Total Cover		Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
Absolute %	Dominant		Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
Absolute %	Dominant		Number of Dominant Species that are OBL, FACW, or FAC: Total Number of Dominant Species Across all Strata: Percent of Dominant Species that are OBL, FACW, or FAC:  1 (A) (B)
Absolute %	Dominant		Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  50.00%  [A/B]
Absolute %	Dominant		FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
Absolute %	Dominant		Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
Absolute %	Dominant		Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)
Absolute %	Dominant		Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B
Absolute %	Dominant		Species that are OBL, FACW, or FAC:
			FACW, or FAC: <u>50.00%</u> (A/B
			,
			Prevalence Index Worksheet
			Flevaletice tituex Workstieet
			Total % Cover of:
			OBL species $0 \times 1 = 0$
			FACW species 40 x 2 = 80
			· — — — — — — — — — — — — — — — — — — —
			FAC species $0 \times 3 = 0$
			FACU species 15 x 4 = 60
			UPL species <u>65</u> x 5 = <u>325</u>
			Column totals $120$ (A) $465$ (B) Prevalence Index = B/A = $3.88$
			Prevalence Index = B/A = 3.88
0 =	Total Cover		
			Hydrophytic Vegetation Indicators:
			Rapid test for hydrophytic vegetation
	Species	Status	Dominance test is >50%
			Prevalence index is≤3.0*
	Υ		Morphological adaptations* (provide
15	N	FACU	supporting data in Remarks or on a separ
			sheet)
			Problematic hydrophytic vegetation*
			(explain)
			*Indicators of hydric soil and wetland hydrology must b
			present, unless disturbed or problematic
			Definitions of Vegetation Strata:
			Tree - Woody plants 3 in. (7.6 cm) or more in diamete at breast height (DBH), regardless of height.
			Sapling/shrub - Woody plants less than 3 in. DBH an
			greater than 3.28 ft (1 m) tall.
120 =	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
			size, and woody plants less than 3.28 ft tall.
Absolute %	Dominant		
Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
			height.
			Hydrophytic
			Hydrophytic vegetation
0 =	Total Cover		present? N
•			
	Absolute % Cover 65 40 15	Absolute % Dominant Species 65 Y A0 Y TOTAL Cover No. 15 N TOTAL Cover Absolute % Cover Dominant Species No. 20 TOTAL Cover NO.	Absolute % Dominant Species Status  G5 Y UPL  40 Y FACW  15 N FACU   120 = Total Cover  Absolute % Dominant Cover  Absolute % Dominant Species  Total Cover  0 = Total Cover

Sampling Point: Upl-tmq-05242018-(

Sampling Point: Upl-tmq-05242018-03

	cription: (Descri	oe to the				indicator	or confirm the absenc	e of indicators.)				
Depth	Matrix	0/		ox Fea		l**	Texture	Remarks				
(Inches)	Color (moist) 10 YR 5/4	% 100	Color (moist)	%	Type*	Loc**	loom					
0-12	10 TK 5/4	100					loam					
***	5						0 1 10 10 1					
	oncentration, D= PL=Pore Lining,			Matrix	, CS=Co	vered or	Coated Sand Grains					
		ivi–iviati	IX.				Indicators to	r Droblemetic Hydric Caile.				
Hydric Soil Indicators:    Dark Surface (S7)												
Restrictive I Type: Depth (inch	_ayer (if observe	ed)			<b>-</b> -		Hydric soil pres	ent? N				
Remarks:												

Project/Site: Holloway-Knox 138 kV Transmission Lin	c City/County: Car		Report Name <u>L</u> Sampling Date 6	Jpland PB-03,04
· · · · · · · · · · · · · · · · · · ·				
Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacobs	State: Ohi	ownship, Range		Jpl-mdt-6/6/2018-03
Landform (hillslope, terrace, etc.) hillslope	Local relief (concav			Slope (%): 1
Subregion (LRR or MLRA): LRR N Lat.		Long.: -81.0		Datum: NAD 83
Soil Map Unit Name CpD - Coshocton silt loam, 15 to 25			ssification: N/A	
Are climatic/hydrologic conditions of the site typical for this	s time of the yea Y	es X No	(If no, ex	plain in remarks
Are vegetatior, soil, or hydrology	significantly dis		"normal circumsta	ances" Yes
Are vegetatior, soil, or hydrology	naturally proble		ent?	
SUMMARY OF FINDINGS		(If no	eeded, explain ar	ny answers in remark
Hydrophytic vegetation present' No				
Hydric soil present?	Is the sampled	d area within a w	etland? No	1
Wetland hydrology present?	is the sumpled	a area within a w	<u> </u>	<u></u>
Wetland hydrology present:	l			
Remarks:				
		10011		
Upland adjacent to Wetlands PB-03 and PB-04	and within maintain	ned ROW.		
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary I	ndicators (minimu	um of two required)
Primary Indicators (minimum of one is required; check all	that apply)	Surface :	Soil Cracks (B6)	. ,
	uatic Plants (B14)		Vegetated Conca	ve Surface (B8)
<del></del> ` '	n Sulfide Odor (C1)		Patterns (B10)	( )
		— <u></u>	m Lines (B16)	
Water Marks (B1) Roots (C	d Rhizospheres on Living		son Water Table (	23)
<del></del>	e of Reduced Iron (C4)		Burrows (C8)	<i>52</i> )
<del></del>	ron Reduction in Tilled		, ,	I Imagery (C9)
Algal Mat or Crust (B4) Soils (C6			Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)	
<del></del> `	ck Surface (C7)		ohic Position (D2)	( )
	explain in Remarks)		Aquitard (D3)	
Inundation Visible on AerialOther (E Imagery (B7)	Apiair iii Nomanoj		ographic Relief (D	4)
Water-Stained Leaves (B9)			utral Test (D5)	7)
Aquatic Fauna (B13)			atrai 1001 (20)	
Field Observations:	( Death (backers)	,	Wetland	
Surface water present? Yes No No				
	Depth (inches):  Depth (inches):		hydrology present?	N
(includes capillary fringe)	Deptil (iliches).		present:	<u>N</u>
(morades dapinary minge)				
Describe recorded data (stream gauge, monitoring well, a	erial photos, previous in	nspections), if ava	ila	
Remarks:				

							50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft.	)	Absolute %	Dominant	Indicator	T 0: :	20% 50%
	·			Cover	Species	Status	Tree Stratum Sapling/Shrub Stratum	0 0
							Herb Stratum	20 50
							Woody Vine Stratum	0 0
							,	
							Dominance Test Workshe	et
					-		Number of Dominant Species that are OBL,	
							FACW, or FAC:	1 (A)
							Total Number of Dominant	``
							Species Across all Strata:	2 (B)
				=	Total Cover		Percent of Dominant	
							Species that are OBL,	
Sapling/Shrub Stratum	Plot Size (	15 ft.	)	Absolute % Cover	Dominant Species	Indicator Status	FACW, or FAC:	50.00% (A/
2.1.2.1.2.1.1					5,73.00		Prevalence Index Worksh	eet
							Total % Cover of:	
							OBL species0x 1	
							FACW species 0 x 2	
							FAC species 30 x 3 FACU species 70 x 4	
							UPL species 0 x 5	
							Column totals 100 (A)	
							Prevalence Index = B/A =	3.70
					Tatal Oans			
				=	Total Cover		Hydrophytic Vegetation In	dicators:
Lawb Ctrature	Diet Cine /	F 44	`	Absolute %	Dominant	Indicator	Rapid test for hydrophy	
Herb Stratum	Plot Size (	5 ft.	)	Cover	Species	Status	Dominance test is >50%	
Poa pratensis				70	Y	FACU	Prevalence index is≤3.0	
Solidago sp.				20	Y	FAC	Morphological adaptation	
Rubus pensilva	anicus			10	N	FAC	supporting data in Rem	arks or on a sep
							sheet) Problematic hydrophytic	vegetation*
							(explain)	Vegetation
							*Indicators of hydric soil and wetl	and hydrology mus
							present, unless disturbed or prob	lematic
							Definitions of Vegetation	Strata:
							Tree - Woody plants 3 in. (7.6 cm	
							at breast height (DBH), regardles	ss of height.
							Sapling/shrub - Woody plants le greater than 3.28 ft (1 m) tall.	
				100 =	Total Cover		Herb - All herbaceous (non-wood	
Moody Vina				Abcolute 0/	Dominant	Indicates	size, and woody plants less than	
Woody Vine Stratum	Plot Size (	30 ft.	)	Absolute % Cover	Species	Indicator Status	Woody vinos All woody vinos	grooter than 2.29 ft
- Ciratani							<b>Woody vines</b> - All woody vines of height.	greater triair 3.26 ft
							Hydrophytic	
							vegetation	
				=	: Total Cover		present? N	_
narke: (Include = b	oto numbera ba	re or on c	conor	ata choot				
narks: (Include ph	oto numbers he	ie or on a	separa	ate sneet				
	arvativaly acc	ianod E/	C :	diantar atatua	مناه رجا مرم سام رجا	vogetetien i	ndicator not mot	
lidago sp. cons			u, m	ncalor stants	DAGLODDANG	VECEIAIIOITI	noicaiornoi mei	

Sampling Point: Upl-mdt-6/6/2018-03

	cription: (Descri	oe to the				indicator	or confirm the absence	of indicators.)					
Depth (Inches)	Matrix Color (moist)	%	Red Color (moist)	ox Fea <sup>.</sup> %	tures Type*	Loc**	Texture	Remarks					
0-10	10YR 4/3	100	(		1,7,2-2		Silt Ioam						
******		Daniel	DM Dadas	I N 4 = 4 = 2 = 2	00.0-		On all all One all Oresian						
· ·	oncentration, D= PL=Pore Lining,		•	i Matrix	, CS=Co	vered or	Coated Sand Grains						
		ivi=iviati	IX				la dia tana fan	Desklamatic Hadria Ocilea					
Hydric Soil Indicators:    Dark Surface (S7)													
Restrictive I Type: Depth (inch	_ayer (if observe	ed)			- -		Hydric soil prese	nt? N					
Remarks:													

Project/Site: Holloway-Knox 138 kV Transman Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacob Landform (hillslope, terrace, etc., hillslope Subregion (LRR or MLRA): LRR N Soil Map Unit Name CpD - Coshocton silt loam Are climatic/hydrologic conditions of the site type Are vegetatior , soil , or hy Are vegetatior , soil , or hy  SUMMARY OF FINDINGS	State: Section Local relief (cor Lat.: 40.44315037 , 15 to 25 percent slope bical for this time of the yea	Yes X No Are oblematic pre	convex Slope (%): 1
Hydrophytic vegetation present No Hydric soil present? No Wetland hydrology present? No	Is the sam	pled area within a v	vetland? No
Upland adjacent to Wetland PB-05 and HYDROLOGY Wetland Hydrology Indicators:	d within maintained ROW		Indicators (minimum of two required)
Primary Indicators (minimum of one is required	: check all that apply)	•	Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)		y Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)		pe Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Li	—,, <u> </u>	rim Lines (B16)
Water Marks (B1)	Roots (C3)	····9 <u>—</u>	ason Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C		Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tille	· — ·	ion Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_Soils (C6)	Stunted	or Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomo	rphic Position (D2)
Inundation Visible on Aerial	Other (Explain in Remarks)	Shallow	Aquitard (D3)
Imagery (B7)		Microto	pographic Relief (D4)
Water-Stained Leaves (B9)		FAC-Ne	eutral Test (D5)
Aquatic Fauna (B13)			
Field Observations:			
· ——	No X Depth (inches):	·	Wetland
Water table present? Yes	No X Depth (inches):	<u></u>	hydrology
Saturation present? Yes(includes capillary fringe)	No X Depth (inches):	·	present? N
(molados sapinary milgo)			
Describe recorded data (stream gauge, monitor	ring well, aerial photos, previo	us inspections), if av	aila
Remarks:			
remans.			
ĺ			

				50/20 Thresholds
	Absolute %	Dominant	Indicator	
Tree Stratum Plot Size ( 30 ft. )				20% 50%
	Cover	Species	Status	Tree Stratum 0 0
				Sapling/Shrub Stratum 0 0
				Herb Stratum 20 50
				Woody Vine Stratum 0 0
				Dominance Test Worksheet
	<del></del>			Number of Dominant
	<del></del>			Species that are OBL,
	· <del></del>			FACW, or FAC: 3 (A)
	· <del></del>			Total Number of Dominant
	· -			Species Across all Strata: 3 (B)
	0 =	= Total Cover		
		- Total Gover		Percent of Dominant
Sapling/Shrub	Absolute %	Dominant	Indicator	Species that are OBL, FACW, or FAC: 100.00% (A/B)
Stratum Plot Size ( 15 ft. )	Cover	Species	Status	FACW, or FAC: <u>100.00%</u> (A/B)
Stratum	Covei	Opecies	Status	Decorded as Index Westerness
	· -			Prevalence Index Worksheet
	·			Total % Cover of:
	·			OBL species 0 x 1 = 0
	·			FACW species $0 \times 2 = 0$
				FAC species 80 x 3 = 240
				FACU species <u>20</u> x 4 = <u>80</u>
				UPL species0 x 5 =0
				Column totals 100 (A) 320 (B)
				Prevalence Index = B/A = 3.20
		Total Caves		
		Total Cover		Hydrophytic Vegetation Indicators:
	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation
Herb Stratum Plot Size ( 5 ft. )	Cover	Species	Status	X Dominance test is >50%
Solidago sp.	30	Y	FAC	Prevalence index is≤3.0*
	30	Y	FAC	Morphological adaptations* (provide
Rubus pensilvanicus Verbesina alternifolia	20	Y	FAC	supporting data in Remarks or on a separ
Podophyllum peltatum	10	N	FACU	sheet)
Rosa multiflora	10	N	FACU	Problematic hydrophytic vegetation*
				(explain)
				*Indicators of hydric soil and wetland hydrology must b
	· <u></u>			present, unless disturbed or problematic
				Definitions of Vegetation Strata:
	· ·			Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH an
				greater than 3.28 ft (1 m) tall.
	100 =	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
				size, and woody plants less than 3.28 ft tall.
Woody Vine Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator	
Stratum	Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
	· <u></u>			height.
	· -			
	<del></del>			Undrambutia
	• •			Hydrophytic vegetation
	0 =	Total Cover		present? Y
	=	- 10(0) 00061		present:
narks: (Include photo numbers here or on a sepa	rate sheet			l
lidago sp. conservatively assigned FAC in	dicator status			

Sampling Point: Upl-mdt-6/6/2018-02

	cription: (Descri	oe to the				indicator	or confirm the absence	of indicators.)					
Depth (Inches)	Matrix Color (moist)	%	Red Color (moist)	lox Fea	tures Type*	Loc**	Texture	Remarks					
0-10	10YR 4/2	100	COIOI (IIIOISI)	70	Турс		Silt loam						
	<del></del>												
*Type: C=C	oncentration D-	-Denletic	n RM=Reduced	l Matrix	CS=Co	vered or	Coated Sand Grains						
· ·	PL=Pore Lining,		•	ı ıvıatııx	, 00-00	verea or	Coalca Garia Grains						
							Indicators for	Problematic Hydric Soils:					
Hydric Soil Indicators:    Dark Surface (S7)													
Restrictive I Type: Depth (inch	Layer (if observe	ed)			-		Hydric soil prese	ent? N					
Remarks:													

		Report Name Upland PB-06
Project/Site: Holloway-Knox 138 kV Transmi		arroll Sampling Date 6/6/2018
Applicant/Owner: FirstEnergy	State: Oh	
Investigator(s) M. Thomayer, T.Qualio; Jacobs		ownship, Range S 23 T 12N R 5W
Landform (hillslope, terrace, etc.) hillslope	Local relief (concav Lat.: 40.44233818	
Subregion (LRR or MLRA): LRR N Soil Map Unit Name CpD - Coshocton silt loam,		Long.: -81.04996387 Datum: NAD 83  NWI Classification: N/A
Are climatic/hydrologic conditions of the site typic	cal for this time of the yea	Yes X No (If no, explain in remarks
Are vegetation , soil , or hyd	lrology significantly dis	sturbed? Are "normal circumstances" Yes
Are vegetatior, soil, or hyd	rology naturally proble	ematic: present? (If needed, explain any answers in remark
SUMMARY OF FINDINGS		(ii needed, explain any answers in remain
Hydrophytic vegetation present' Yes		
Hydric soil present? No	Is the sampled	d area within a wetland? No
Wetland hydrology present? No		
Remarks:		
Upland adjacent to Wetland PB-06 and	within maintained ROW.	
opiana adjacent to trestana i 2 ce ana	main mainainea reem	
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)		
Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Soils (C6)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
<del>-</del> ' ` ' <del>-</del>	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial	Other (Explain in Remarks)	Microtopographic Relief (D4)
Imagery (B7) Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
` '		TAC-Neutral Test (D3)
Aquatic Fauna (B13)		
Field Observations:		
	No X Depth (inches):	Wetland
	No X Depth (inches):	hydrology
	lo X Depth (inches):	present? N
(includes capillary fringe)		
Describe recorded data (stream gauge, monitoring	ng well, aerial photos, previous in	nspections), if availa
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		,
Remarks:		
itematiks.		

							Sampling Point:	
							50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft.	)	Absolute %	Dominant	Indicator	T 0: :	20% 50%
				Cover	Species	Status	Tree Stratum Sapling/Shrub Stratum	0 0
							Herb Stratum	20 50
							Woody Vine Stratum	0 0
							,	
							Dominance Test Workshe	et
					-		Number of Dominant Species that are OBL,	
					•		FACW, or FAC:	2 (A)
							Total Number of Dominant	``
							Species Across all Strata:	2 (B)
					: Total Cover		Percent of Dominant	
							Species that are OBL,	
Sapling/Shrub Plot Size ( 15 ft. ) Stratum	)	Absolute % Cover	Dominant Species	Indicator Status	FACW, or FAC:			
							Prevalence Index Worksh	eet
							Total % Cover of:	
							OBL species 0 x 1	
							FACW species 0 x 2 FAC species 100 x 3	
							FACU species 0 x 4	
							UPL species 0 x 5	
							Column totals 100 (A)	300 (B)
							Prevalence Index = B/A =	3.00
				0 =	Total Cover			
							Hydrophytic Vegetation In	ndicators:
Herb Stratum	Plot Size (	5 ft.	)	Absolute %	Dominant	Indicator	Rapid test for hydrophy	
Calidaga	`		,	Cover	Species	Status	X Dominance test is >50%	
Solidago sp. Rubus pensilvai	nicus			<u>70</u> 30	<u> </u>	FAC FAC	_ X Prevalence index is≤3.0* Morphological adaptations* (provide	
rabas perisiivai	riicus				<u> </u>	TAO	supporting data in Rem	
					•		sheet)	
							Problematic hydrophytic	c vegetation*
					-		(explain)	
							*Indicators of hydric soil and wetl present, unless disturbed or prob	
				-	-		present, unless disturbed or prob	nematic
							Definitions of Vegetation	
							<b>Tree</b> - Woody plants 3 in. (7.6 cm at breast height (DBH), regardles	*
							Sapling/shrub - Woody plants le	
				100 =	Total Cover		greater than 3.28 ft (1 m) tall.  Herb - All herbaceous (non-wood	
Mandy Min				Λ h a = l · · · · · · · · · · · · · · · · · ·	Dominio	4 المصا	size, and woody plants less than	
Woody Vine Stratum	Plot Size (	30 ft.	)	Absolute % Cover	Dominant Species	Indicator Status	Woody vines - All woody vines	greater than 3 28 ft
							height.	9
							Hydrophytic	
							vegetation	
				=	: Total Cover		present? Y	=
marks: (Include pho	oto numbers he	re or on a	separa		Total Cover		present? Y	_

SOIL Sampling Point: Upl-mdt-6/6/2018-01 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Color (moist) Loc\*\* Color (moist) Type\* 10YR 4/3 0-10 100 Silt loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains \*\*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: **Indicators for Problematic Hydric Soils:** Dark Surface (S7) Polyvalue Below Surface (S8) 2 cm Muck (A10) (MLRA 147) Histisol (A1) Histic Epipedon (A2) (MLRA 147, 148) Coast Prairie Redox (A16)(MLRA 147, 148) Thin Dark Surface (S9) Piedmont Floodplain Soils (F19 Black Histic (A3) Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147) Stratified Layers (A5) Loamy Gleyed Matrix (F2 Very Shallow Dark Surface (TF12) 2 cm Muck (A10) (LRR N) Depleted Matrix (F3) Other (Explain in Remarks Depleted Below Dark Surface (A11 Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) MLRA 148) Red Parent Material (F21)(MLRA 127, 147) Stripped Matrix (S6) \*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem Restrictive Layer (if observed) Hydric soil present? N Type: Depth (inches): Remarks:

Subregion (LRR or MLRA): LRR N Soil Map Unit Name WnF - Westmorelar Are climatic/hydrologic conditions of the Are vegetatior, soil	Jacob: slope Lat.: nd-Dekalb complex	Local relief (co 40.42572479 40 to 70 percen time of the yea significantl	n, Township ncave, conv Lo	, Range ex, none), ong.:81 NWI Cla	Sampling Date Sampling Point: S 21 T 12N R 5 convex 05013349 Issification: N/A (If no, e "normal circums eent?	Upl-mdt-6/6/18-05/06  W Slope (%): 2 Datum: NAD 83  explain in remarks		
Hydric soil present?	les_ No_ No_	Is the sampled area within a wetland? No						
Upland data point adjacent to We	etlands PB-07 a	and PB-08, with	in maintair	ned ROV	V.			
Wetland Hydrology Indicators:			Se	econdary I	ndicators (minin	num of two required)		
Primary Indicators (minimum of one is re	quired; check all th	nat apply)			Soil Cracks (B6)	, , , , , , , , , , , , , , , , , , , ,		
Surface Water (A1)					ely Vegetated Concave Surface (B8)			
High Water Table (A2)					ge Patterns (B10)			
Saturation (A3)				Moss Trim Lines (B16)				
Water Marks (B1)	Roots (C3	Rhizospheres on L	iving	_	, ,	(C2)		
Sediment Deposits (B2)		e of Reduced Iron (C4)		Dry-Season Water Table (C2) Crayfish Burrows (C8)				
Drift Deposits (B3)		ron Reduction in Tilled		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Soils (C6)			Stunted or Stressed Plants (D1)				
Iron Deposits (B5)	ck Surface (C7) Geomo			orphic Position (D2)				
Inundation Visible on Aerial	Other (Ex	xplain in Remarks) Shallov			Aquitard (D3)			
Imagery (B7)				Microtop	ographic Relief (	D4)		
Water-Stained Leaves (B9)				FAC-Net	utral Test (D5)			
Aquatic Fauna (B13)				<u> </u>				
Field Observations:								
Surface water present? Yes	No X	Depth (inches)	:		Wetland			
Water table present? Yes	No X	Depth (inches)	:	_	hydrology			
Saturation present? Yes	No X	Depth (inches)	:	_	present?	<u>N</u>		
(includes capillary fringe)								
Describe recorded data (stream gauge, I	monitoring well, ae	rial photos, previo	ous inspectio	ons), if ava	iila			
Remarks:								

GETATION - USE		•				Sampling Point:	Opi-mat-6/6/16-
						50/20 Thresholds	
Tree Stratum F	Plot Size (	30 ft.	) Absolute %	Dominant	Indicator	T 0: :	20% 50%
			Cover	Species	Status	Tree Stratum	0 0
						Sapling/Shrub Stratum Herb Stratum	0 0 20 50
						Woody Vine Stratum	0 0
						Dominance Test Workshe	et
						Number of Dominant	
						Species that are OBL, FACW, or FAC:	2 (A)
			<del></del>			Total Number of Dominant	(A)
						Species Across all Strata:	3 (B)
			0 =	Total Cover		Percent of Dominant	
						Species that are OBL,	
Sapling/Shrub	Plot Size (	15 ft.	Absolute %	Dominant	Indicator	FACW, or FAC:	66.67% (A/
Stratum	,		Cover	Species	Status		
						Prevalence Index Worksh	eet
						Total % Cover of:	
				-		OBL species 0 x 1 FACW species 0 x 2	
			<del></del>			FAC v species 0 x 2	
						FACU species 50 x 4	
						UPL species 0 x 5	
						Column totals 100 (A)	350 (B)
						Prevalence Index = B/A =	3.50
				Total Cover			
				- Total Gover		Hydrophytic Vegetation Ir	ndicators:
Herb Stratum I	Plot Size (	5 ft.	Absolute %	Dominant	Indicator	Rapid test for hydrophy	
neib Stratum i	riot Size (	J II.	Cover	Species	Status	X Dominance test is >50%	6
Poa pratensis			50	Y	FACU	Prevalence index is≤3.0	
Solidago sp.			30	<u>Y</u>	FAC	Morphological adaptation	
Rubus pensilvanicu	JS		20	Y	FAC	supporting data in Rem	arks or on a sepa
						sheet) Problematic hydrophytic	a vagatation*
			<del></del>			(explain)	o vegetation
				-		*Indicators of hydric soil and wet	land hydrology mus
						present, unless disturbed or prob	
							<del></del>
_						Definitions of Vegetation Tree - Woody plants 3 in. (7.6 cr	
						at breast height (DBH), regardles	
						Sapling/shrub - Woody plants l	
			100 =	Total Cover		greater than 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woo	
\\\aad\.\\ir-			Abe-list- 01	Domi	la dia - 4 - :-	size, and woody plants less than	
Woody Vine Stratum	Plot Size (	30 ft.	) Absolute % Cover	Dominant Species	Indicator Status	Woody vines - All woody vines	greater than 3.28 ft
						height.	greater than 0.20 it
			<del></del>			Ludrophytic	
						Hydrophytic vegetation	
			0 =	= Total Cover		present? Y	
							<del>-</del> 
marks: (Include photo	numbers he	re or on a se	parate sheet				
lidago sp. conserva			No. 10 and a second				

Sampling Point: Upl-mdt-6/6/18-05/06

	cription: (Descri	oe to the				indicator	or confirm the absence	of indicators.)
Depth (Inches)	Matrix Color (moist)	%	Red Color (moist)	ox Fea <sup>.</sup> %	tures Type*	Loc**	Texture	Remarks
0-10	10YR 4/3	100	(		1,7,2-2		Silt Ioam	
******		Daniel	DM Dadas	I N 4 = 4 = 2 = 2	00.0-		011-01-0	
· ·	oncentration, D= PL=Pore Lining,		•	i Matrix	, CS=Co	vered or	Coated Sand Grains	
	Indicators:	ivi=iviati	IX				la dia tana fan	Problematic Hydric Soils:
Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Stripped	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR d Below Dark Si ark Surface (A1) Mucky Mineral (S , MLRA 147, 14 Gleyed Matrix (S Redox (S5) d Matrix (S6)	urface ( <i>F</i> 2) 61) <b>8)</b> 4	(MLRA) Thin Dai (MLRA) Loamy ( Depleted Redox D Pepleted Redox D Iron-Mai Umbric S Piedmoi Red Par	ne Beloo 147, 14 rk Surfa 147, 14 Gleyed d Matrio Oark Su d Dark Oepress nganes Surface nt Flood ent Ma	w Surface (8)  ace (S9)  Matrix (F3)  rface (F6)  Surface sions (F8  e Massee  (F13) (N  dplain Sc  terial (F2	F2 (F7) () (S (F12) I () () () () () () () () () () () () ()	Coast Prain Piedmont F (MLRA 136)  Coast Prain Piedmont F (MLRA 136)	ow Dark Surface (TF12) lain in Remarks
Restrictive I Type: Depth (inch	_ayer (if observe	ed)			- -		Hydric soil prese	nt? N
Remarks:								

Project/Site: Hellowey Kney 129 by Transmission Liv	. City/County Ho		Report Name Upl	
Project/Site: Holloway-Knox 138 kV Transmission Lin			Sampling Date 6/6	
Applicant/Owner: FirstEnergy	State: Ohi		Sampling Point: Upl	-mdt-6/6/2018-07
Investigator(s) M. Thomayer, T.Qualio; Jacob			S 20 T 12N R 5W	01 (0/)
Landform (hillslope, terrace, etc.) terrace	Local relief (concav			Slope (%):
Subregion (LRR or MLRA): LRR N Lat. Soil Map Unit Name GSB - Glenford silt loam, 3 to 8 percentage of the substitution of the		Long.: <u>-81.0</u> NWI Cla	ssification: N/A	Datum: NAD 83
Are climatic/hydrologic conditions of the site typical for the	is time of the yea Y	es X No	(If no, expla	ain in remarks
Are vegetation , soil , or hydrology	significantly dist	turbed? Are	"normal circumstan	ces" Yes
Are vegetatior , soil , or hydrology	naturally proble		ent? eeded, explain any	answers in remark
SUMMARY OF FINDINGS		,		
Hydrophytic vegetation present' No				
Hydric soil present? No	is the sampled	d area within a w	etland? No	-
Wetland hydrology present? No				
Remarks:				
Upland data point adjacent to Wetlands PB-09	and PR-10 within m	naintained ROV	V	
Opiana data point adjacent to Wetlands 1 5-09	and i b-10, within in	iairitairieu NOV	v.	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary I	ndicators (minimum	of two required)
Primary Indicators (minimum of one is required; check all	that apply)		Soil Cracks (B6)	or two required)
			` ,	O( (D0)
<del></del>	uatic Plants (B14)		Vegetated Concave	Surface (B8)
	en Sulfide Odor (C1)		Patterns (B10)	
Saturation (A3) Oxidized	d Rhizospheres on Living		m Lines (B16)	
Water Marks (B1)Roots (C	,		son Water Table (C2)	)
	e of Reduced Iron (C4)		Burrows (C8)	(==)
· · · · /	Iron Reduction in Tilled		on Visible on Aerial In	
Algal Mat or Crust (B4) Soils (C	•		or Stressed Plants (D	01)
<del></del>	ck Surface (C7)		ohic Position (D2)	
Inundation Visible on AerialOther (E	Explain in Remarks)	Shallow /	Aquitard (D3)	
Imagery (B7)			ographic Relief (D4)	
Water-Stained Leaves (B9)		FAC-Neu	utral Test (D5)	
Aquatic Fauna (B13)				
Field Observations:				
Surface water present? Yes No	K Depth (inches):	,	Wetland	
Water table present? Yes No	C Depth (inches):		hydrology	
	C Depth (inches):		present?	<u>N</u>
(includes capillary fringe)				
Describe recorded data (stream gauge, monitoring well, a	porial photos, provious in	aspections) if suc	ila	
Describe recorded data (stream gauge, monitoring well, a	denai priotos, previous ir	ispections), ii ava	llia	
Remarks:				
inomano.				

Tree Stratum Plot Size ( 30 ft. ) Absolute % Cover Species Status    O	20%   50%
Tree Stratum Plot Size ( 30 ft. ) Cover Species Status	Tree Stratum         0         0           Sapling/Shrub Stratum         0         0           Herb Stratum         22         55           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,         1         (A)           FACW, or FAC:         1         (A)           Total Number of Dominant         Species Across all Strata:         2         (B)           Percent of Dominant         Species that are OBL,         FACW, or FAC:         50.00%         (A/B)           Prevalence Index Worksheet           Total % Cover of:         OBL species         0         x 1 =         0           FACW species         0         x 2 =         0           FAC species         85         x 3 =         255           FACU species         25         x 4 =         100           UPL species         0         x 5 =         0           Column totals         110         (A)         355         (B)           Prevalence Index = B/A =         3.23         (B)
Sapling/Shrub Stratum  Plot Size ( 15 ft. ) Absolute % Dominant Stratus  O = Total Cover Species Status  O = Total Cover Status  Indicator Status  Absolute % Dominant Indicator Status  O = Total Cover	Sapling/Shrub Stratum         0         0           Herb Stratum         22         55           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,         1         (A)           FACW, or FAC:         1         (A)           Total Number of Dominant         2         (B)           Percent of Dominant         2         (B)           Percent of Dominant         2         (A/B)           Prevalence Index Worksheet           Total % Cover of:         0         X 1 =         0           OBL species         0         X 2 =         0           FACW species         0         X 2 =         0           FAC species         25         X 4 =         100           UPL species         0         X 5 =         0           Column totals         110         (A)         355         (B)           Prevalence Index = B/A =         3.23         (B)
Sapling/Shrub Stratum  Plot Size ( 15 ft. )  Dominant Species  Status  Dominant Species  Status  O = Total Cover  Absolute % Dominant Species  Status  Dominant Indicator Species  Absolute % Dominant Indicator	Herb Stratum
Sapling/Shrub Stratum  Plot Size ( 15 ft. )  Dominant Species  Status  Dominant Species  Status  O = Total Cover  Absolute % Dominant Species  Status  Dominant Indicator Species  Absolute % Dominant Indicator	Dominance Test Worksheet
Sapling/Shrub Stratum Plot Size ( 15 ft. ) Absolute % Dominant Stratum Plot Size ( 15 ft. ) O = Total Cover Species Status  O = Total Cover Status  O = Total Cover Status	Dominance Test Worksheet
Sapling/Shrub Stratum  Plot Size ( 15 ft. )	Number of Dominant   Species that are OBL,   FACW, or FAC:
Sapling/Shrub Stratum  Plot Size ( 15 ft. )	Number of Dominant   Species that are OBL,   FACW, or FAC:
Sapling/Shrub Stratum  Plot Size ( 15 ft. ) Absolute % Dominant Cover Species Status  O = Total Cover Species Status  O = Total Cover Status  Absolute % Dominant Indicator Stratus  O = Total Cover Species Status	Species that are OBL, FACW, or FAC: 1 (A)  Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: $50.00\%$ (A/B)  Prevalence Index Worksheet  Total % Cover of:  OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 85 x 3 = 255 FACU species 25 x 4 = 100 UPL species 0 x 5 = 0 Column totals $110$ (A) $355$ (B) Prevalence Index = B/A = $3.23$
Sapling/Shrub Stratum  Plot Size ( 15 ft. ) Absolute % Dominant Cover Species Status  O = Total Cover Species Status  O = Total Cover Status  Absolute % Dominant Indicator Stratus  O = Total Cover Species Status	FACW, or FAC: 1 (A)  Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of:  OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 85 x 3 = 255 FACU species 25 x 4 = 100 UPL species 0 x 5 = 0 Column totals 110 (A) 355 OCIUMN TOTAL SPECIES (B) Prevalence Index = B/A = 3.23  Hydrophytic Vegetation Indicators:
Sapling/Shrub Stratum  Plot Size ( 15 ft. ) Absolute % Dominant Cover Species Status  O = Total Cover Species Status  O = Total Cover Status  Absolute % Dominant Indicator Stratus  O = Total Cover Species Status	Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of:  OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 85 x 3 = 255 FACU species 25 x 4 = 100 UPL species 0 x 5 = 0 Column totals 110 (A) 355 (B) Prevalence Index = B/A = 3.23
Sapling/Shrub Stratum  Plot Size ( 15 ft. ) Absolute % Dominant Cover Species Status  O = Total Cover Species Status  O = Total Cover Status  Absolute % Dominant Indicator Stratus  O = Total Cover Species Status	Species Across all Strata: 2 (B)
Sapling/Shrub Stratum  Plot Size ( 15 ft. ) Absolute % Dominant Species Status  O = Total Cover  Absolute % Dominant Species Status  O = Total Cover  Absolute % Dominant Indicator Species Status	Percent of Dominant Species that are OBL, FACW, or FAC: $50.00\%$ (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species $0 \times 1 = 0$ FACW species $0 \times 2 = 0$ FAC species $0 \times 2 = 0$ FAC species $0 \times 3 = 255$ FACU species $0 \times 5 = 0$ UPL species $0 \times 5 = 0$ Column totals $0 \times 5 = 0$ Column totals $0 \times 5 = 0$ Column totals $0 \times 5 = 0$ Revalence Index $0 \times 5 = 0$ (B) Prevalence Index $0 \times 5 = 0$ Revalence Index
Sapling/Shrub Stratum  Plot Size ( 15 ft. ) Absolute % Dominant Cover Species Status  O = Total Cover  Herb Stratum  Plot Size ( 5 ft. ) Absolute % Dominant Indicator Stratum  O = Total Cover	Species that are OBL, FACW, or FAC: $50.00\%$ (A/B)  Prevalence Index Worksheet  Total % Cover of:  OBL species $0 \times 1 = 0$ FACW species $0 \times 2 = 0$ FAC species $0 \times 2 = 0$ FACU species $0 \times 3 = 255$ FACU species $0 \times 5 = 0$ UPL species $0 \times 5 = 0$ Column totals $110$ (A) $355$ (B) Prevalence Index = B/A = $3.23$
Stratum Plot Size ( 15 it. ) Cover Species Status	FACW, or FAC:         50.00%         (A/B)           Prevalence Index Worksheet           Total % Cover of:         0         × 1 = 0           OBL species         0         × 2 = 0           FACW species         85         × 3 = 255           FACU species         25         × 4 = 100           UPL species         0         × 5 = 0           Column totals         110         (A)         355           Prevalence Index = B/A =         3.23    Hydrophytic Vegetation Indicators:
Stratum Plot Size ( 15 it. ) Cover Species Status	Prevalence Index Worksheet
Stratum Cover Species Status  O = Total Cover  Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	Total % Cover of:  OBL species $0 \times 1 = 0$ FACW species $0 \times 2 = 0$ FAC species $0 \times 3 = 255$ FACU species $0 \times 5 = 0$ UPL species $0 \times 5 = 0$ Column totals $110 \times 5 = 0$ Prevalence Index = B/A = $3.23$
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	Total % Cover of:  OBL species $0 \times 1 = 0$ FACW species $0 \times 2 = 0$ FAC species $0 \times 3 = 255$ FACU species $0 \times 5 = 0$ UPL species $0 \times 5 = 0$ Column totals $110 \times 5 = 0$ Prevalence Index = B/A = $3.23$
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	FACW species $ 0 $ x 2 = $ 0 $ FAC species $ 85 $ x 3 = $ 255 $ FACU species $ 25 $ x 4 = $ 100 $ UPL species $ 0 $ x 5 = $ 0 $ Column totals $ 110 $ (A) $ 355 $ (B) Prevalence Index = B/A = $ 3.23 $
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	FACW species $ 0 $ x 2 = $ 0 $ FAC species $ 85 $ x 3 = $ 255 $ FACU species $ 25 $ x 4 = $ 100 $ UPL species $ 0 $ x 5 = $ 0 $ Column totals $ 110 $ (A) $ 355 $ (B) Prevalence Index = B/A = $ 3.23 $
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	FACU species $25 \times 4 = 100$ UPL species $0 \times 5 = 0$ Column totals $110 \times 100$ Prevalence Index = B/A = $3.23$ Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	UPL species $0 \times 5 = 0$ Column totals $110 \times 5 = 0$ Prevalence Index = B/A = $3.23 \times 5 = 0$ Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	Column totals $110$ (A) $355$ (B) Prevalence Index = B/A = $3.23$ (B)  Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	Prevalence Index = B/A = 3.23  Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	
Herb Stratum Plot Size ( 5 ft ) Absolute % Dominant Indicator	
Hern Stratum Plot Size ( 5 ft )	
Hern Stratum Plot Size ( 5 ft )	Ranid test for hydrophytic vegetation
Cover Species Status	
•	Dominance test is >50%
Verbesina alternifolia 70 Y FAC	Prevalence index is≤3.0*
Poa pratensis 25 Y FACU	Morphological adaptations* (provide
Dicanthelium clandestinum 15 N FAC	supporting data in Remarks or on a separa
	sheet)
	Problematic hydrophytic vegetation*
	(explain)
	*Indicators of hydric soil and wetland hydrology must be
	present, unless disturbed or problematic
	Definitions of Vegetation Strata:
	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
	at breast height (DBH), regardless of height.
	Sapling/shrub - Woody plants less than 3 in. DBH angreater than 3.28 ft (1 m) tall.
	groater than 0.20 ft (1 m) tall.
110 = Total Cover	Herb - All herbaceous (non-woody) plants, regardless
Woody Vino	size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum Plot Size ( 30 ft. ) Absolute % Dominant Indicator Stratum Cover Species Status	
Stratum Cover Species Status	<b>Woody vines</b> - All woody vines greater than 3.28 ft in
	height.
	Hydrophytic
	vegetation
= Total Cover	present? N
and a Marked a short a combane have a same of the first of the same of the sam	
marks: (Include photo numbers here or on a separate sheet	

SOIL

**Sampling Point:** Upl-mdt-6/6/2018-07

		be to the		e indicator	or confirm the absence of in	dicators.)
Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist) % Type	e* Loc**	Texture	Remarks
0-10	10YR 4/3	100	Color (moist) % Type	; LOC	Silt loam	
0-10	1011( 4/3	100			Silt loain	
				_		
				_		
				_		
				_		
*Type: C=C	oncentration. D=	-Depletio	on, RM=Reduced Matrix, CS=0	Covered or	Coated Sand Grains	
	PL=Pore Lining,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	Indicators:				Indicators for Prob	lematic Hydric Soils:
Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Stripped	pipedon (A2) listic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) (LRR I ed Below Dark Sulark Surface (A12) Mucky Mineral (SI, MLRA 147, 146 Gleyed Matrix (SI) d Matrix (S6)	urface ( <i>F</i> 2) 61) <b>8)</b> 4	Dark Surface (S7) Polyvalue Below Surf (MLRA 147, 148) Thin Dark Surface (St (MLRA 147, 148) Loamy Gleyed Matrix Depleted Matrix (F3) Redox Dark Surface (Depleted Dark Surface (F13) Redox Depressions (Depleted Dark Surface (F13) Piedmont Floodplain Red Parent Material (Depleted Dark Surface (Deple	9) (F2 (F6) ee (F7) F8) ses (F12) (MLRA 13 Soils (F19) F21)(MLRA	Piedmont Flood  (MLRA 136, 14' Very Shallow Do Other (Explain i  LRR N, MLRA 136) 36, 122) MLRA 148) A 127, 147)	edox (A16) <b>(MĹRA 147, 148)</b> plain Soils (F19 <b>7)</b> ark Surface (TF12) n Remarks
Type:	Layer (if observe	d)			Hydric soil present?	N

Project/Site: Holloway-Knox 138 kV Transmission Line Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacob: Landform (hillslope, terrace, etc.) plain Subregion (LRR or MLRA): LRR N Late Soil Map Unit Name GsB - Glenford silt loam, 3 to 8 percent of the site typical for the site vegetation percent of the site vegetation	State: Section, Local relief (cond.:: 40.39960799 cent slope	Township, Range cave, convex, none, Long.: -81.  Yes X No disturbed: Are blematic: pres	\$ 20 T 12N R 5\overline{W} \frac{\text{convex}}{\text{convex}} \text{.05185961} \text{assification: N/A} \text{(If no, exp} \text{"normal circumstasent?}	07/2018 pl-mdt-6/07/2018-03 Slope (%): 1 Datum: NAD 83
SUMMARY OF FINDINGS				
Hydrophytic vegetation present' No Hydric soil present? No Wetland hydrology present? No	Is the samp	led area within a w	vetland? No	_
Upland data point adjacent to Wetland PB-11 :  HYDROLOGY  Wetland Hydrology Indicators:	and within maintair		Indicators (minimu	m of two required)
Primary Indicators (minimum of one is required; check al	I that apply)	-	Soil Cracks (B6)	in or two required)
	quatic Plants (B14)		y Vegetated Conca	/e Surface (B8)
<del></del>	en Sulfide Odor (C1)		e Patterns (B10)	ve duriade (Bo)
		— <u>-</u>	rim Lines (B16)	
Water Marks (B1) Roots (	d Rhizospheres on Livi	··9 <del></del>	ason Water Table (C	22)
<u> </u>	ce of Reduced Iron (C4		Burrows (C8)	,2)
<del></del>	Iron Reduction in Tilled	· — ·	on Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4) Soils (C			or Stressed Plants	
Iron Deposits (B5) Thin Mu	uck Surface (C7)	Geomor	phic Position (D2)	
Inundation Visible on Aerial Other (I	Explain in Remarks)	Shallow	Aquitard (D3)	
Imagery (B7)	,	Microtop	oographic Relief (D4	1)
Water-Stained Leaves (B9)		FAC-Ne	eutral Test (D5)	
Aquatic Fauna (B13)				
Field Observations:				
	X Depth (inches):		Wetland	
	X Depth (inches):		hydrology	
Saturation present? Yes No (includes capillary fringe)	X Depth (inches):		present?	N
(includes capillary finge)				
Describe recorded data (stream gauge, monitoring well,	aerial photos, previou	s inspections), if ava	aila	
Remarks:				

						50/20 Thresholds	
			Abaaluta 0/	Dominant	ladioator	50/20 Thresholds	200/ 500/
Tree Stratum	Plot Size (	30 ft. )	Absolute % Cover	Dominant	Indicator	T 0: 1	20% 50%
			Cover	Species	Status	Tree Stratum	0 0
						Sapling/Shrub Stratum	0 0
						Herb Stratum	22 55
						Woody Vine Stratum	0 0
			<del>-</del>			Dominance Test Workshee	<b>2</b> †
						Number of Dominant	<b>5</b> L
						Species that are OBL,	
						FACW, or FAC:	1 (A)
						Total Number of Dominant	(/ //
						Species Across all Strata:	2 (B)
			0 =	Total Cover		<b>'</b>	(D)
				- Total Cover		Percent of Dominant	
O = li /Oll-			A l l + - O/	Daminant	la dia atau	Species that are OBL,	E0 000/ (A/D)
Sapling/Shrub	Plot Size (	15 ft. )	Absolute %	Dominant	Indicator	FACW, or FAC:	50.00% (A/B)
Stratum	•	•	Cover	Species	Status		
						Prevalence Index Workshop	et
						Total % Cover of:	
						OBL species 0 x 1	= 0
	- <del></del>	· <del></del>				FACW species 0 x 2	= 0
						FAC species 25 x 3	
						FACU species 85 x 4	
		_				UPL species 0 x 5	
						Column totals 110 (A)	415 (B)
						Prevalence Index = B/A =	3.77
			=	Total Cover			
						Hydrophytic Vegetation In	
Herb Stratum	Plot Size (	5 ft. )	Absolute %	Dominant	Indicator	Rapid test for hydrophyt	
	(	,	Cover	Species	Status	Dominance test is >50%	
Poa pratensis			65	Y	FACU	Prevalence index is≤3.0	
Solidago rugosa			25	Y	FAC	Morphological adaptatio	
Trifolium repens			20	N	FACU	supporting data in Rema	arks or on a separa
						sheet)	
						Problematic hydrophytic	vegetation*
						(explain)	
						*Indicators of hydric soil and wetla	
						present, unless disturbed or prob	ematic
						Definitions of Vegetation S	Strata:
					-	Tree - Woody plants 3 in. (7.6 cm	
						at breast height (DBH), regardles	
							· ·
						Sapling/shrub - Woody plants le greater than 3.28 ft (1 m) tall.	ss man 3 in. DBH and
			110 =	Total Cover			v) planta recordica-
						<b>Herb</b> - All herbaceous (non-wood size, and woody plants less than	
Woody Vine	Diet Cir- /	30 th '	Absolute %	Dominant	Indicator	5126, and woody plants less trial	J.20 II Iaii.
Stratum	Plot Size (	30 ft. )	Cover	Species	Status	Woody vines - All woody vines g	reater than 3.28 ft in
				-		height.	
						Hydrophytic	
•						vegetation	
			0 =	Total Cover		present? N	
			=	- Total Covel		present: N	•
marks: (Include pho	to numbers he	re or on a sep	arate sheet			•	

SOIL Sampling Point: Upl-mdt-6/07/2018-03 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Color (moist) Loc\*\* Color (moist) Type\* 0-10 10 YR 5/3 100 loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains \*\*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: **Indicators for Problematic Hydric Soils:** Dark Surface (S7) Polyvalue Below Surface (S8) 2 cm Muck (A10) (MLRA 147) Histisol (A1) Histic Epipedon (A2) (MLRA 147, 148) Coast Prairie Redox (A16)(MLRA 147, 148) Thin Dark Surface (S9) Piedmont Floodplain Soils (F19 Black Histic (A3) Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147) Stratified Layers (A5) Loamy Gleyed Matrix (F2 Very Shallow Dark Surface (TF12) 2 cm Muck (A10) (LRR N) Depleted Matrix (F3) Other (Explain in Remarks Depleted Below Dark Surface (A11 Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) MLRA 148) Red Parent Material (F21)(MLRA 127, 147) Stripped Matrix (S6) \*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem Restrictive Layer (if observed) Hydric soil present? N Type: Depth (inches): Remarks:

Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qu Landform (hillslope, terrace, etc.) Subregion (LRR or MLRA): LRR N Soil Map Unit Name CnD - Coshocte Are climatic/hydrologic conditions of Are vegetatior, soil	hillslope Lat.: on silt loam, 15 to 25 p	State: Section Local relief (cor 40.39812932 Decreent slope s time of the yea	n, Township, Rancave, convex, Long.  Yes X	Sampling Date 6 Sampling Point: Lange S 19 T 12N R 5W none; convex -81.05192015 WI Classification: N/A	Jpl-mdt-6/07/2018-01
SUMMARY OF FINDINGS				(	.,
Hydrophytic vegetation present' Hydric soil present? Wetland hydrology present?	Yes No No	Is the sam	pled area with	in a wetland? No	
Remarks:  Upland data point adjacent to  HYDROLOGY	) Wetlands PB-12	and PB-13, withi	in maintained	B ROW.	
Wetland Hydrology Indicators:			Cooo	adoru Indiaatora (minimu	um of two required)
, ,,	is required; shock all	that apply)		ndary Indicators (minimu	im or two required)
Primary Indicators (minimum of one		inat apply) latic Plants (B14)		urface Soil Cracks (B6)	vo Curtoso (PO)
Surface Water (A1)				parsely Vegetated Conca	ve Surface (Do)
High Water Table (A2)		n Sulfide Odor (C1)		rainage Patterns (B10)	
Saturation (A3)		Rhizospheres on Liv	····9 <u>—</u>	oss Trim Lines (B16)	20)
Water Marks (B1) Sediment Deposits (B2)	Roots (C	ತ) e of Reduced Iron (C		ry-Season Water Table (0 rayfish Burrows (C8)	52)
Drift Deposits (B2)		on Reduction in Tille		aturation Visible on Aerial	I Imagery (C9)
Algal Mat or Crust (B4)	Soils (C6			tunted or Stressed Plants	<b>o</b> , , ,
Iron Deposits (B5)		k Surface (C7)		eomorphic Position (D2)	,
Inundation Visible on Aerial		xplain in Remarks)		hallow Aquitard (D3)	
Imagery (B7)		,		icrotopographic Relief (D	4)
Water-Stained Leaves (B9)				AC-Neutral Test (D5)	,
Aquatic Fauna (B13)					
Field Observations:					
Surface water present? Yes	No X	Depth (inches):	:	Wetland	
Water table present? Yes	No X	Depth (inches):		hydrology	
Saturation present? Yes	No X	Depth (inches):	:	present?	<u>N</u>
(includes capillary fringe)					
Describe recorded data (stream gau	ge, monitoring well, a	erial photos, previo	us inspections)	ı, if availa	
Remarks:					

Tree Stratum						50/20 Thresholds
	Plot Size (	30 ft.	Absolute %	Dominant	Indicator	20% 50%
Tiee Stratum	FIUL SIZE (	30 II.	Cover	Species	Status	Tree Stratum 0 0
1						Sapling/Shrub Stratum 0 0
						Herb Stratum 23 58
						Woody Vine Stratum 0 0
5 S						Dominance Test Worksheet Number of Dominant
						Species that are OBL,
7						·
						FACW, or FAC: 2 (A)
						Total Number of Dominant
)				Total Cayer		Species Across all Strata: 2 (B)
				Total Cover		Percent of Dominant
						Species that are OBL,
Sapling/Shrub Stratum	Plot Size (	15 ft.	Absolute %	Dominant	Indicator	FACW, or FAC: <u>100.00%</u> (A/B)
			Cover	Species	Status	Burgley Island
			<del>_</del>			Prevalence Index Worksheet
						Total % Cover of:
						OBL species 0 x 1 = 0
ļ						FACW species0 x 2 =0
5						FAC species <u>115</u> x 3 = <u>345</u>
S						FACU species0 _ x 4 =0
7						UPL species $0 \times 5 = 0$
3						Column totals 115 (A) 345 (B)
9			_			Prevalence Index = B/A = 3.00
)				Total Cover		
			=	= Total Cover		Hydrophytic Vegetation Indicators:
	DI + O' +	- 6	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation
Herb Stratum	Plot Size (	5 ft. )	Cover	Species	Status	X Dominance test is >50%
1 Solidago rugosa			50	Y	FAC	X Prevalence index is≤3.0*
2 Dichanthelium cla	andestinum		30		FAC	Morphological adaptations* (provide
3 Verbesina alternii				<u>i</u> N	FAC	supporting data in Remarks or on a separa
4 Rubus pensilvani			15	N	FAC	sheet)
Tabas pensiivanii	543				170	Problematic hydrophytic vegetation*
			<del>_</del>			
<u> </u>						(explain)
						*Indicators of hydric soil and wetland hydrology must b
3 9			<del>-</del>			present, unless disturbed or problematic
)						Definitions of Vegetation Strata:
1						Tree - Woody plants 3 in. (7.6 cm) or more in diameter
<u></u>						at breast height (DBH), regardless of height.
3 1						Sapling/shrub - Woody plants less than 3 in. DBH and
5						greater than 3.28 ft (1 m) tall.
			115=	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
Moody Vina			Absolute 0/	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
Woody Vine	Plot Size (	30 ft.	Absolute %		Indicator	l
Stratum 1		,	Cover	Species	Status	<b>Woody vines</b> - All woody vines greater than 3.28 ft in height.
2				-		noight.
3						Hydrophytic
3						vegetation
3			0 =	<ul> <li>Total Cover</li> </ul>		present? Y
4				1010100101		p. 666.11.
amarks: (Include photo		re or on a sep				<u> </u>
3 4 5		re or on a sep				
marks: (Include photo		re or on a sep				

Sampling Point: Upl-mdt-6/07/2018-0

SOIL

Sampling Point: Upl-mdt-6/07/2018-01 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Color (moist) Loc\*\* Color (moist) Type\* 10YR 4/3 0-10 100 Silt loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains \*\*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: **Indicators for Problematic Hydric Soils:** Dark Surface (S7) Polyvalue Below Surface (S8) 2 cm Muck (A10) (MLRA 147) Histisol (A1) Histic Epipedon (A2) (MLRA 147, 148) Coast Prairie Redox (A16)(MLRA 147, 148) Thin Dark Surface (S9) Piedmont Floodplain Soils (F19 Black Histic (A3) Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147) Stratified Layers (A5) Loamy Gleyed Matrix (F2 Very Shallow Dark Surface (TF12) 2 cm Muck (A10) (LRR N) Depleted Matrix (F3) Other (Explain in Remarks Depleted Below Dark Surface (A11 Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) MLRA 148) Red Parent Material (F21)(MLRA 127, 147) Stripped Matrix (S6) \*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem Restrictive Layer (if observed) Hydric soil present? N Type: Depth (inches): Remarks:

	Jacob: n Lat.: d-Dekalb complex	Local relief (co 40.3838428 25 to 40 percentime of the yea	n, Township, Rancave, convex, Long t slope N Yes X y disturbed?	Sampling Date Sampling Point singe S 19 T 12N R 5 none; convex: -81.05263681 WI Classification: N/A No (If no, e Are "normal circums present?	: Upl-mdt-6/07/2018-04 :W Slope (%): 1 Datum: NAD 83
Hydrophytic vegetation present'  Hydric soil present?  Wetland hydrology present?	0	Is the sam	pled area with	in a wetland? N	No
Upland data point adjacent to We	etland PB-14 and	d within mainta	nined ROW.		
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is reconstructed Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Aquatic Fauna (B13)	True Aquat Hydrogen S Oxidized R Roots (C3) Presence C Recent Iron Soils (C6) Thin Muck	tic Plants (B14) Sulfide Odor (C1) hizospheres on Li	Si	adary Indicators (minir urface Soil Cracks (B6) parsely Vegetated Conditional rainage Patterns (B10) poss Trim Lines (B16) ry-Season Water Table rayfish Burrows (C8) aturation Visible on Aer unted or Stressed Plan eomorphic Position (D2 hallow Aquitard (D3) icrotopographic Relief ( AC-Neutral Test (D5)	(C2) ial Imagery (C9) its (D1)
Field Observations: Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe)  Describe recorded data (stream gauge, n		_ Depth (inches) _ Depth (inches) _ Depth (inches) ial photos, previo		Wetland hydrology present?	N
Remarks:					

						50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft.	Absolute %	Dominant	Indicator		20% 50%
rice ottatum	1 101 0126 (	50 It.	Cover	Species	Status	Tree Stratum	0 0
1						Sapling/Shrub Stratum	0 0
2						Herb Stratum	17 43
3						Woody Vine Stratum	0 0
4							
5						Dominance Test Workshe	et
6						Number of Dominant	
7						Species that are OBL,	
8						FACW, or FAC:	0 (A)
9					-	Total Number of Dominant	
40						Species Across all Strata:	3 (B)
				= Total Cover		· '	(B)
				= Total Cover		Percent of Dominant	
						Species that are OBL,	
Sapling/Shrub	Plot Size (	15 ft.	Absolute %	Dominant	Indicator	FACW, or FAC:	0.00% (A/B)
Stratum	1 101 0120 (	10 11.	Cover	Species	Status		
1						Prevalence Index Workshop	et
						Total % Cover of:	
							_ 0
						OBL species 0 x 1 FACW species 0 x 2	
4							
						FAC species 15 x 3	
6						FACU species 70 x 4	
7						UPL species 0 x 5	
88						Column totals 85 (A)	325 (B)
9						Prevalence Index = B/A =	3.82
10							
			0	= Total Cover			
						Hydrophytic Vegetation In	dicators:
	DI + O: /	- ·	, Absolute %	Dominant	Indicator	Rapid test for hydrophyt	ic vegetation
Herb Stratum	Plot Size (	5 ft.	) Cover	Species	Status	Dominance test is >50%	
1 Fragaria virginia	ana		30	Y	FACU	Prevalence index is≤3.0	
2 Rubus allegher			20	<u> </u>	FACU	Morphological adaptatio	
	ilerisis						
3 Poa pratensis			20	Y	FACU	supporting data in Rema	arks or on a separate
4 Solidago rugosa	a		15	N	FAC	sheet)	
5						Problematic hydrophytic	vegetation*
6						(explain)	
7						*Indicators of hydric soil and wetl:	and hydrology must be
8						present, unless disturbed or prob	ematic
9							
10						Definitions of Vegetation S	Strata:
44					-	Tree - Woody plants 3 in. (7.6 cm	
10						at breast height (DBH), regardles	
						at breast fieight (DBH), regardles	s or neight.
—						Sapling/shrub - Woody plants le	ss than 3 in. DBH and
						greater than 3.28 ft (1 m) tall.	
10			85	= Total Cover			
			00	- TOTAL COVEL		Herb - All herbaceous (non-wood	
\\\\ a a dy \\\\\\ -			A h = -1:-4 = 0/	Dom:	المطلم المطا	size, and woody plants less than	3.28 ft tall.
Woody Vine	Plot Size (	30 ft.	Absolute %	Dominant	Indicator		
Stratum	(		' Cover	Species	Status	Woody vines - All woody vines of	reater than 3.28 ft in
1						height.	
2							
2							
4						Hydrophytic	
5				<del></del>	-	vegetation	
			0	<ul> <li>Total Cover</li> </ul>		present? N	
Remarks: (Include pho	oto numbers he	re or on a se	parate sheet				
S							
8							
٤							

Sampling Point: Upl-mdt-6/07/2018-0

SOIL Sampling Point: Upl-mdt-6/07/2018-04 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Color (moist) Loc\*\* Color (moist) Type\* 10 YR 4/3 0-10 100 Silt loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains \*\*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: **Indicators for Problematic Hydric Soils:** Dark Surface (S7) Polyvalue Below Surface (S8) 2 cm Muck (A10) (MLRA 147) Histisol (A1) Histic Epipedon (A2) (MLRA 147, 148) Coast Prairie Redox (A16)(MLRA 147, 148) Thin Dark Surface (S9) Piedmont Floodplain Soils (F19 Black Histic (A3) Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147) Stratified Layers (A5) Loamy Gleyed Matrix (F2 Very Shallow Dark Surface (TF12) 2 cm Muck (A10) (LRR N) Depleted Matrix (F3) Other (Explain in Remarks Depleted Below Dark Surface (A11 Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) MLRA 148) Red Parent Material (F21)(MLRA 127, 147) Stripped Matrix (S6) \*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem Restrictive Layer (if observed) Hydric soil present? N Type: Depth (inches):

Remarks:

Project/Site: Holloway-Knox 138 kV Transmission Line	c City/County: Harri		t Name <u>Upland PB-15</u> ling Date 6/07/2018
Applicant/Owner: FirstEnergy	State: Ohio		ling Point: U-mdt-6/07/2018-08
Investigator(s) M. Thomayer, T.Qualio; Jacob		nship, Range S 24 1	
Landform (hillslope, terrace, etc.) terrace	Local relief (concave		nvex Slope (%):
Subregion (LRR or MLRA): LRR N Lat.:		Long.: -81.05310	
Soil Map Unit Name Me - Melvin silt loam, frequently pond		NWI Classifica	
Are climatic/hydrologic conditions of the site typical for this	s time of the yea Ye	s <u>X</u> No	(If no, explain in remarks
Are vegetatior, soil, or hydrology	significantly distu		al circumstances" Yes
Are vegetatior, soil, or hydrology	naturally problem		, explain any answers in remark
SUMMARY OF FINDINGS		(II Heeded	, explain any answers in remark
Hydrophytic vegetation present′ No_			
Hydric soil present? NoNo	Is the sampled a	area within a wetland	l? <u>No</u>
Wetland hydrology present? NoNo			
Remarks:			
111 114 116 116 116 116 116 116	1 201 1 1 1	DOW	
Upland data point adjacent to Wetland PB-15 a	nd within maintained	ROW.	
HYDROLOGY			
Wetland Hydrology Indicators:		•	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all	that apply)	Surface Soil Cr	` '
Surface Water (A1) True Aqu	uatic Plants (B14)	Sparsely Veget	ated Concave Surface (B8)
High Water Table (A2) Hydroge	n Sulfide Odor (C1)	Drainage Patte	rns (B10)
Saturation (A3) Oxidized	Rhizospheres on Living	Moss Trim Line	es (B16)
Water Marks (B1) Roots (C		Dry-Season Wa	, ,
<u> </u>	e of Reduced Iron (C4)	Crayfish Burrov	, ,
<del></del>	ron Reduction in Tilled		ole on Aerial Imagery (C9)
Algal Mat or Crust (B4) Soils (C6			ssed Plants (D1)
<del></del> `	ck Surface (C7)	Geomorphic Po	, ,
	xplain in Remarks)	Shallow Aquita	, ,
	Apiaiii iii itemarkoj		, ,
Imagery (B7) Water-Stained Leaves (B9)		Microtopograph FAC-Neutral Te	
` '		FAC-Neutral 16	est (D3)
Aquatic Fauna (B13)			
Field Observations:			
Surface water present? Yes NoX		Wetla	
	Depth (inches):	hydro	= -
	Depth (inches):	prese	nt? <u>N</u>
(includes capillary fringe)			
Describe recorded data (stream gauge, monitoring well, a	erial nhotos previous ins	nections) if availa	
besonder data (stream gauge, montoring well, a	enai priotos, previous iris	pections), ii availa	
Remarks:			
indinans.			

Species  Total Cover  Dominant Species  Total Cover  Dominant Species  Y Y	ndicator Status  ndicator Status  ndicator Status  ndicator Status  FACU FAC FACU FAC	Tree Stratum $0$ 0 0 Sapling/Shrub Stratum $0$ 0 0 O Sapling/Shrub Stratum $0$ 0 0 O O O O O O O O O O O O O O O O O
Species  Total Cover  Dominant Species  Total Cover  Dominant Species  Y Y N	ndicator Status  ndicator Status  ndicator Status  FACU FAC FACU	Tree Stratum Sapling/Shrub Stratum Herb Stratum Woody Vine Stratum  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Total % Cover of: OBL species  Nation Species
Total Cover  Dominant Species  Total Cover  Dominant Ir Species  Y Y N	ndicator Status 	Sapling/Shrub Stratum 0 0 0 Herb Stratum 29 73 Woody Vine Stratum 0 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x1 = 0 FACW species 0 x2 = 0 FAC species 40 x3 = 120 FACU species 105 x4 = 420 UPL species 0 x5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Herb Stratum
Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Woody Vine Stratum       0       0         Dominance Test Worksheet         Number of Dominant       Species that are OBL,         FACW, or FAC:       1       (A)         Total Number of Dominant       2       (B)         Percent of Dominant       Species Across all Strata:       2       (B)         Percent of Dominant       Species that are OBL,       FACW, or FAC:       50.00%       (A/B)         Prevalence Index Worksheet         Total % Cover of:       0       x 1 =       0         FACW species       0       x 2 =       0         FAC species       40       x 3 =       120         FACU species       0       x 5 =       0         Column totals       145       (A)       540       (B)         Prevalence Index = B/A =       3.72         Hydrophytic Vegetation Indicators:         Rapid test for hydrophytic vegetation         Dominance test is >50%         Prevalence index is ≤3.0*         Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x1 = 0 FACW species 0 x2 = 0 FAC species 40 x3 = 120 FACU species 105 x4 = 420 UPL species 0 x5 = 0 Column totals 145 (A) 540 Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
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Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 40 x 3 = 120 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Species that are OBL, FACW species that or of: OBL species
Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	FACW, or FAC: 1 (A)  Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x1 = 0 FACW species 0 x2 = 0 FAC species 40 x3 = 120 FACU species 105 x 4 = 420 UPL species 0 x5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 40 x 3 = 120 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
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Dominant Ir Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Species that are OBL, FACW, or FAC:
Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Species that are OBL, FACW, or FAC:
Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Prevalence Index Worksheet  Total % Cover of:  OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 40 x 3 = 120 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separe
Total Cover  Dominant Species Y Y N	Status  Indicator Status FACU FAC FACU	Prevalence Index Worksheet  Total % Cover of:  OBL species 0 x 1 = 0  FACW species 0 x 2 = 0  FAC species 40 x 3 = 120  FACU species 105 x 4 = 420  UPL species 0 x 5 = 0  Column totals 145 (A) 540 (B)  Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation  Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separ
Total Cover  Dominant Ir Species Y Y N	ndicator Status FACU FAC	Total % Cover of:  OBL species 0 x 1 = 0  FACW species 0 x 2 = 0  FAC species 40 x 3 = 120  FACU species 105 x 4 = 420  UPL species 0 x 5 = 0  Column totals 145 (A) 540 (B)  Prevalence Index = B/A = 3.72   Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation  Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species Y Y N	Status FACU FAC FACU	Total % Cover of:  OBL species 0 x 1 = 0  FACW species 0 x 2 = 0  FAC species 40 x 3 = 120  FACU species 105 x 4 = 420  UPL species 0 x 5 = 0  Column totals 145 (A) 540 (B)  Prevalence Index = B/A = 3.72   Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation  Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species Y Y N	Status FACU FAC FACU	OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 40 x 3 = 120 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separe
Dominant Ir Species Y Y N	Status FACU FAC FACU	FACW species 0 x 2 = 0 FAC species 40 x 3 = 120 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species Y Y N	Status FACU FAC FACU	FAC species 40 x 3 = 120 FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column totals 145 (A) 540 (B) Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species Y Y N	Status FACU FAC FACU	FACU species 105 x 4 = 420 UPL species 0 x 5 = 0 Column totals 145 (A) 540 Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
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Dominant Ir Species Y Y N	Status FACU FAC FACU	UPL species 0 x 5 = 0 Column totals 145 (A) 540 Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Dominant Ir Species Y Y N	Status FACU FAC FACU	Column totals 145 (A) 540 (B)  Prevalence Index = B/A = 3.72  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separation in the separa
Dominant Ir Species Y Y N	Status FACU FAC FACU	Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetationDominance test is >50%Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a sepa
Dominant Ir Species Y Y N	Status FACU FAC FACU	Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separations)
Dominant Ir Species Y Y N	Status FACU FAC FACU	Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separations)
Dominant Ir Species Y Y N	Status FACU FAC FACU	Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Species Y Y N	Status FACU FAC FACU	Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Species Y Y N	Status FACU FAC FACU	Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separations)
Y Y N	FACU FACU	Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
Y N	FACU	Morphological adaptations* (provide supporting data in Remarks or on a separ
N	FACU	supporting data in Remarks or on a separ
		•
N	FAC	sheet)
		Problematic hydrophytic vegetation*
		(explain)
		*Indicators of hydric soil and wetland hydrology must b
		present, unless disturbed or problematic
		Definitions of Vegetation Strata:
	<del></del>	Tree - Woody plants 3 in. (7.6 cm) or more in diamete
		at breast height (DBH), regardless of height.
		<b>Sapling/shrub</b> - Woody plants less than 3 in. DBH ar greater than 3.28 ft (1 m) tall.
Total Cover		Herb - All herbaceous (non-woody) plants, regardless
Daniel :		size, and woody plants less than 3.28 ft tall.
Species	Status	Woody vines - All woody vines greater than 3.28 ft in
		height.
		Hydrophytic
		vegetation
Total Cover		present? N
· · ·		<u> </u>
	Dominant I Species	Dominant Indicator Species Status

**Sampling Point:** U-mdt-6/07/2018-08

								9			
	· · · · · · · · · · · · · · · · · · ·	e to the	_			indicator	or confirm the absence	of indicators.)			
Depth	Matrix	0/		ox Feat		l**	Texture	Remarks			
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Olle In ann				
0-10	10 YR 4/1	100					Silt loam				
*Type: C=C	oncentration, D=	Depletion	on, RM=Reduced	d Matrix	, CS=Co	vered or	Coated Sand Grains				
**Location:	PL=Pore Lining,	M=Matr	ix								
Hydric Soil	Indicators:						Indicators for	Problematic Hydric Soils:			
Histisol (A1)  —— Dark Su Polyvalu						o (S9)	O are Musels	(A40) (MI DA 447)			
	,			e (So)		(A10) ( <b>MLRA 147)</b> ie Redox (A16) <b>(MLRA 147, 148)</b>					
Histic Epipedon (A2) Black Histic (A3)  (MLRA 147, 148) Thin Dark Surface (					-,			Toodplain Soils (F19			
Black Histic (A3) Thin Dark Surface ( Hydrogen Sulfide (A4) (MLRA 147, 148)					` ,		(MLRA 136				
Stratifie	d Layers (A5)		Loamy	Gleyed	, Matrix (F	2	Very Shallo	ow Dark Surface (TF12			
2 cm M	uck (A10) (LRR	N)	Deplete				Other (Expl	lain in Remarks			
	d Below Dark Su	,			rface (F6	,	<del></del>				
	ark Surface (A12	,	Deplete	d Dark	Surface	(F7)					
,	Mucky Mineral (S	,			ions (F8						
	, MLRA 147, 14	,					LRR N, MLRA 136)				
	Gleyed Matrix (S	4)			· , •	/ILRA 13					
	Redox (S5)				•	Soils (F19) <b>MLRA 148</b> ) (F21) <b>(MLRA 127, 147)</b>					
Stripped	d Matrix (S6)		Red Pai	ent ivia	teriai (F2	21)(WLR	A 127, 147)				
*Indicators	of hydrophytic ve	egetation	and wetland hy	drology	must be	present	, unless disturbed or pro	bblem			
							·				
Dootriotivo I	aver (if about to	۵۱									
Type:	_ayer (if observe	a)					Hydric soil prese	nt? N			
Depth (inch	es):				-		riyuric son prese	III: <u>N</u>			
2 op (o					-						
Remarks:											

Subregion (LRR or MLRA): LRR N Soil Map Unit Name CnD - Coshocton si Are climatic/hydrologic conditions of the Are vegetatior, soil	Jacobs Slope Lat.: It loam, 15 to 25 pe	Local relief (co 40.37551503 ercent slope time of the yea	n, Township, I ncave, conver Lon Yes X	Sar Sar Sar Range S 2 x, none) g.: -81.052 NWI Classif Mo Are "no present	npling Date npling Point: 4 T 11N R 5 convex 99632 ication: N/A (If no, e.	u-mdt-060718-06,07 <i>N</i> Slope (%): 1  Datum: NAD 83
Hydric soil present?	10 10	Is the sam	pled area wi	thin a wetla	nd? N	0
Upland data point adjacent to We	etland PB-16 and	d PB-17, withir	n maintaine	d ROW.		
Wetland Hydrology Indicators:			Sec	ondary Indic	cators (minim	num of two required)
Primary Indicators (minimum of one is re	quired; check all th	at apply)		Surface Soil	Cracks (B6)	
Surface Water (A1)	True Aqua	tic Plants (B14)		Sparsely Ve	getated Conc	ave Surface (B8)
High Water Table (A2)	Hydrogen	Sulfide Odor (C1)		Drainage Pa	_	
Saturation (A3)		hizospheres on Li		Moss Trim L	, ,	
Water Marks (B1)	Roots (C3)	•	····9 <u>—</u>		Water Table	(C2)
Sediment Deposits (B2)		of Reduced Iron (C		Crayfish Bur		(02)
Drift Deposits (B3)		n Reduction in Tille				al Imagery (C9)
Algal Mat or Crust (B4)	Soils (C6)				tressed Plant	
Iron Deposits (B5)	Thin Muck	Surface (C7)		Geomorphic	Position (D2)	)
Inundation Visible on Aerial		lain in Remarks)		Shallow Aqu	, ,	
Imagery (B7)		,			aphic Relief (I	D4)
Water-Stained Leaves (B9)				FAC-Neutral	. ,	,
Aquatic Fauna (B13)					` ,	
Field Observations:						
Surface water present? Yes	No X	Depth (inches)	:	We	tland	
Water table present? Yes	No X	Depth (inches)		hyd	Irology	
Saturation present? Yes	No X	Depth (inches)		pre	sent?	N
(includes capillary fringe)					•	
Describe recorded data (stream gauge, r	monitoring well, aer	ial photos, previo	us inspection	s), if availa		
Remarks:						

esholds
20% 50%
tum 0 0
hrub Stratum 0 0
tum 25 63
ne Stratum 0 0
ce Test Worksheet
f Dominant
nat are OBL,
FAC: 2 (A)
nber of Dominant
Across all Strata: 3 (B)
f Dominant
nat are OBL,
FAC: 66.67% (A/B
1 AC. 00.01 /8 (A/B
ce Index Worksheet
over of:
ies 0 x1= 0
ecies 0 x 2 = 0
sies 85 x 3 = 255
ecies 40 x 4 = 160
ies 0 x 5 = 0
otals 125 (A) 415 (B)
te Index = B/A = 3.32
0.02
ytic Vegetation Indicators:
_
test for hydrophytic vegetation
nance test is >50%
llence index is≤3.0*
nological adaptations* (provide
orting data in Remarks or on a separ
)
ematic hydrophytic vegetation*
ain)
of hydric soil and wetland hydrology must b
less disturbed or problematic
ns of Vegetation Strata:
dy plants 3 in. (7.6 cm) or more in diamete
eight (DBH), regardless of height.
rub - Woody plants less than 3 in. DBH ar
n 3.28 ft (1 m) tall.
erbaceous (non-woody) plants, regardless
pody plants less than 3.28 ft tall.
es - All woody vines greater than 3.28 ft in
<del></del>
ophytic
ation
ent? Y
i

Sampling Point: u-mdt-060718-06.07

							Janip	inig i dilit. u-mat-0007 10-00,07			
Profile Desc	cription: (Descri	ne to the	depth needed to	o docum	nent the	indicator	or confirm the absence	of indicators.)			
Depth	Matrix	00 10 1110	'	lox Feat		maioator		,			
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks			
0-10	10 YR 4/3	100	(,	,,,	1		Silt loam				
0.10	10 110 170	100					Circioani				
, ,	oncentration, D= PL=Pore Lining,	•	•	d Matrix	, CS=Co	overed or	Coated Sand Grains				
	Indicators:						Indicators for	Problematic Hydric Soils:			
,			Dark Su	ırface (S	S7)						
			Polyvalı	ue Belov	w Surfac	e (S8)		(A10) ( <b>MLRA 147)</b>			
Histic Epipedon (A2)  Rlack Histic (A3)  Thin Dark Su			,	-,			rie Redox (A16)(MLRA 147, 148)				
Black Histic (A3)  Thin Dark Surface (S				` ,			Floodplain Soils (F19				
Hydrogen Sulfide (A4) (MLRA 147, 148) Stratified Layers (A5 Loamy Gleyed Matri				,	<b>-</b> 2	(MLRA 13	ow Dark Surface (TF12)				
	uck (A10) (LRR	M)	Deplete			-2		lain in Remarks			
	ed Below Dark S				rface (F	6)	Other (Exp	iaiii iii iteiliaiks			
_	ark Surface (A1	•			Surface						
	Mucky Mineral (S	,			sions (F8	'					
,	, MLRA 147, 14	,			`	,	LRR N, MLRA 136)				
`	, Gleyed Matrix (S	,		0		VLRA 13	,				
Sandy F	Redox (S5)		Piedmo	nt Flood	dplain Sc	Soils (F19) MLRA 148)					
Stripped	d Matrix (S6)		Red Par	rent Ma	terial (F2	21) <b>(MLR</b> .	A 127, 147)				
*Indicators	of hydrophytic ve	egetation	and wetland hy	drology	must be	present	, unless disturbed or pro	oblem			
Restrictive I	Layer (if observe	ed)									
Type:					_		Hydric soil prese	nt? <u>N</u>			
Depth (inch	es):				-						
Remarks:											

Subregion (LRR or MLRA): LRR N Soil Map Unit Name CnD - Coshocton sil Are climatic/hydrologic conditions of the s Are vegetatior, soilX	Jacob: lope Lat.: t loam, 15 to 25 perc	Local relief (cor 40.37465371 ent slope	, Township, Rancave, convex, relations Long.: NV Yes X disturbed?	nge S 24 T 11N R 5 none; convex -81.05297605  VI Classification: N/A No (If no, 6 Are "normal circum present?	: Upl-mdt-6/07/2018-05 bW Slope (%): 1 Datum: NAD 83 Ax
Hydrophytic vegetation present N Hydric soil present? N Wetland hydrology present? N	0	Is the sam	pled area withi	n a wetland?	No
Upland data point adjacent to We pipeline construction.  HYDROLOGY	etland PB-18 and	within mainta	ined ROW. T	he area has been	disturbed by recent
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is red Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	True Aquatic Hydrogen St Oxidized Rhi Roots (C3) Presence of Recent Iron I Soils (C6) Thin Muck S	Plants (B14)  Ilfide Odor (C1)  zospheres on Liv  Reduced Iron (C  Reduction in Tille	Su	dary Indicators (minir Inface Soil Cracks (B6) arsely Vegetated Conainage Patterns (B10) ass Trim Lines (B16) by-Season Water Table ayfish Burrows (C8) turation Visible on Aerunted or Stressed Plane comorphic Position (D2) allow Aquitard (D3) crotopographic Relief (IC-Neutral Test (D5)	(C2) ial Imagery (C9) its (D1)
Field Observations: Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe)  Describe recorded data (stream gauge, n	No X No X	Depth (inches): Depth (inches): Depth (inches): I photos, previo		Wetland hydrology present?	N
Remarks:					

Mominispecia  Total Ca  Dominispecia  Total Ca  Dominispecia  Total Ca  Y  Y  Y	es Status  over  ant Indicato Status  over  ant Indicato Indicato Indicato	Tree Stratum 0 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 15 38 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 0 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
Special Specia	es Status  over  ant Indicator Status  over  ant Indicator Status  FACU	Tree Stratum 0 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 15 38 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 0 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
= Total Co	over  Indicator Status  over  Indicator Status  over  Indicator Status  FACU	Sapling/Shrub Stratum 0 0 0 Herb Stratum 15 38 Woody Vine Stratum 0 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 0 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Column totals 75 (A) 285 (B) Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separation)
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Herb Stratum  Woody Vine Stratum  Dominance Test Worksheet  Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Percent of Dominant Species that are OBL, FACW, or FAC:  Dominant Species that are OBL, FACW, or FAC:  Dominant Species that are OBL, FACW, or FAC:  Dominant Species that are OBL, FACW species that are OBL, FACW species that are OBL, FACW species that are OBL, FACU species that a
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Woody Vine Stratum 0 0 0
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Dominance Test Worksheet  Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Column totals 75 (A) 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Column totals 75 (A) 3.80  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Number of Dominant Species that are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Column totals 75 (A) 3.80  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Prevalence Index Worksheet  Total % Cover of: OBL species Ox1 = OFACW species Ox2 = OFACW species FACU species Ox4 = 240 UPL species Ox5 = OFACW SPECIES UPL species Ox5 = OFACW S
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	FACW, or FAC: 1 (A)  Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
% Dominion Special Communication Special Com	ant Indicators Status  Over Indicators Status  FACU	Species that are OBL, FACW, or FAC: 50.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 (B) Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
Special Specia	es Status  Over  Indicator es Status  FACU	Prevalence Index Worksheet  Total % Cover of:  OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 (B) Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
Special Specia	es Status  Over  Indicator es Status  FACU	Prevalence Index Worksheet  Total % Cover of:  OBL species 0 x 1 = 0  FACW species 0 x 2 = 0  FAC species 15 x 3 = 45  FACU species 60 x 4 = 240  UPL species 0 x 5 = 0  Column totals 75 (A) 285 (B)  Prevalence Index = B/A = 3.80   Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation  Dominance test is >50%  Prevalence index is ≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separate
= Total Co	over  Indicator es Status FACU	Total % Cover of:  OBL species 0 x 1 = 0  FACW species 0 x 2 = 0  FAC species 15 x 3 = 45  FACU species 60 x 4 = 240  UPL species 0 x 5 = 0  Column totals 75 (A) 285 (B)  Prevalence Index = B/A = 3.80   Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation  Dominance test is >50%  Prevalence index is ≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separation)
 // Domina Specia	ant Indicator es Status FACU	Total % Cover of:  OBL species 0 x 1 = 0  FACW species 0 x 2 = 0  FAC species 15 x 3 = 45  FACU species 60 x 4 = 240  UPL species 0 x 5 = 0  Column totals 75 (A) 285 (B)  Prevalence Index = B/A = 3.80   Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation  Dominance test is >50%  Prevalence index is ≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separate
 // Domina Specia	ant Indicator es Status FACU	OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
 // Domina Specia	ant Indicator es Status FACU	FACW species 0 x 2 = 0 FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
 // Domina Specia	ant Indicator es Status FACU	FAC species 15 x 3 = 45 FACU species 60 x 4 = 240 UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80   Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate
 // Domina Specia	ant Indicator es Status FACU	FACU species 60 x 4 = 240  UPL species 0 x 5 = 0  Column totals 75 (A) 285  Prevalence Index = B/A = 3.80   Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation  Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separation)
 // Domina Specia	ant Indicator es Status FACU	UPL species 0 x 5 = 0 Column totals 75 (A) 285 Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separ
 // Domina Specia	ant Indicator es Status FACU	Column totals 75 (A) 285 (B)  Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separation)
 // Domina Specia	ant Indicator es Status FACU	Prevalence Index = B/A = 3.80  Hydrophytic Vegetation Indicators:  Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separations)
 // Domina Specia	ant Indicator es Status FACU	Hydrophytic Vegetation Indicators:  r
 // Domina Specia	ant Indicator es Status FACU	Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separa
 // Domina Specia	ant Indicator es Status FACU	Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separations)
Speci	es Status FACU	Rapid test for hydrophytic vegetation Dominance test is >50% Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separa
Speci	es Status FACU	Dominance test is >50%  Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separa
•	FACU	Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a separa
Ý		Morphological adaptations* (provide supporting data in Remarks or on a separa
		supporting data in Remarks or on a separa
		sheet)
	<del></del>	Problematic hydrophytic vegetation*
		(explain)
		*Indicators of hydric soil and wetland hydrology must be
		present, unless disturbed or problematic
		Definitions of Vegetation Strata:
		Tree - Woody plants 3 in. (7.6 cm) or more in diameter
		at breast height (DBH), regardless of height.
	<del></del>	<ul> <li>Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.</li> </ul>
= Total Co	OVEL	_   *
_ = 10(a) 0(	7401	<b>Herb</b> - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall.
% Domina	ant Indicato	5.20, and woody planto loss than 5.20 it tail.
Speci	es Status	Woody vines - All woody vines greater than 3.28 ft in
		height.
		_
		_
		Hydrophytic
_		vegetation
= Total Co	over	present? N
		· —
	% Domina Specie	

Sampling Point: Upl-mdt-6/07/2018-05

Depth	Matrix		Red	lox Fea	tures		Texture	Remarks	
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	rexture	Remarks	
0-10	10 YR 4/2	100					Silt loam	rock in pit	
, ,	•	•	•	d Matrix	, CS=Co	vered or	Coated Sand Grains		
**Location:	PL=Pore Lining,	M=Matr	ix						
Hydric Soil	Indicators:						Indicators fo	r Problematic Hydric Soils:	
10.0.1	(4.4)		Dark Su	,	,	- (CO)	0 14	1 (A40) (BH D A 447)	
Histisol			•		w Surfac	e (58)		k (A10) ( <b>MLRA 147)</b> airie Redox (A16) <b>(MLRA 147, 148)</b>	
Histic Epipedon (A2)  Black Histic (A3)  (MLRA 147, 148)  Thin Dark Surface (S							Floodplain Soils (F19		
	en Sulfide (A4)		(MLRA		` ,		(MLRA 1	· · · · · · · · · · · · · · · · · · ·	
	d Layers (A5)		`		Matrix (F	2		llow Dark Surface (TF12	
	uck (A10) (LRR	N)	Deplete	•	,			plain in Remarks	
Deplete	d Below Dark S	urface (A	A11 Redox [	Dark Su	rface (F6	5)			
Thick D	ark Surface (A1	2)	Deplete	d Dark	Surface	(F7)			
Sandy M	Mucky Mineral (S	S1)	Redox [	Depress	ions (F8	)			
	, MLRA 147, 14						LRR N, MLRA 136)		
	Gleyed Matrix (S	4]	Umbric	Surface	(F13) <b>(N</b>	ILRA 13	6, 122)		
	Redox (S5)						MLRA 148)		
Stripped	d Matrix (S6)		Red Pai	rent Ma	terial (F2	21) <b>(MLR</b>	A 127, 147)		
*Indicators	of hydrophytic y	actation	and watland by	drology	must ho	procent	, unless disturbed or p	roblom	
mulcators	or riyaropriyac ve	getatioi	i and welland my	arology	must be	present	, unless disturbed or p	lobiem	
	_ayer (if observe	d)							
	ocky				_		Hydric soil pres	ent? N	
Depth (inch	es): 10				_				
Remarks:									
nemarks.									

Project/Site: Holloway-Knox 138 kV Tra	nsmission Line (	City/County:	Harrison		Sampling Date:	
Applicant/Owner: FirstEnergy	Horridolori Eirio	State:				U-bao-6/11/2018-01
Investigator(s): M. Thomayer, B.Otto Jacob	os				3 23 T 11N R 5	
Landform (hillslope, terrace, etc.): hillside		ocal relief (cor				Slope (%): 1
Subregion (LRR or MLRA) LRR N		10.36391485		ig.: <u>-81.0</u>		Datum: NAD 83
Soil Map Unit Name WnE - Westmoreland-I	Dekalb complex, 2	25 to 40 percer	nt slopes	NWI Clas	ssification: N/A	
Are climatic/hydrologic conditions of the site	typical for this tir	me of the year	Yes>			cplain in remarks
Are vegetation, soil, or	hydrology	significantly			normal	Yes
Are vegetatior, soil, or	hydrology	naturally pr	oblematic?		mstances" pres	
				(If ne	eded, explain a	any answers in remarks
SUMMARY OF FINDINGS						
Hydrig soil present No		le the com	nlad araa w	ithin a w	otlands N	
Hydric soil present? No		is the sam	pled area w	itiiii a w	etland? No	<u> </u>
Wetland hydrology present? No						
Remarks:	•					
Links of a sint for DEM Wetler of DD	40 :		DOW			
Upland point for PEM Wetland PB	-19 in routinely	/ maintained	ROW.			
HYDROLOGY						
Wetland Hydrology Indicators:			Sec	condary Ir	ndicators (minin	num of two required)
Primary Indicators (minimum of one is requi	red; check all that	it apply)		Surface S	Soil Cracks (B6)	
Surface Water (A1)	True Aquatic	Plants (B14)		Sparsely	Vegetated Cond	ave Surface (B8)
High Water Table (A2)	Hydrogen Sul	Ifide Odor (C1)		Drainage	Patterns (B10)	
Saturation (A3)	Oxidized Rhiz	zospheres on Li	vina	Moss Trin	n Lines (B16)	
Water Marks (B1)	Roots (C3)	•	-	Dry-Seas	on Water Table	(C2)
Sediment Deposits (B2)	Presence of F	Reduced Iron (C	C4)	Crayfish I	Burrows (C8)	
Drift Deposits (B3)	Recent Iron R	Reduction in Till	ed	Saturation	n Visible on Aeri	al Imagery (C9)
Algal Mat or Crust (B4)	Soils (C6)		_	Stunted o	r Stressed Plan	ts (D1)
Iron Deposits (B5)	Thin Muck Su	urface (C7)		Geomorp	hic Position (D2	)
Inundation Visible on Aerial	Other (Explain	n in Remarks)		Shallow A	Aquitard (D3)	
Imagery (B7)				Microtopo	graphic Relief (	D4)
Water-Stained Leaves (B9)				FAC-Neu	tral Test (D5)	·
Aquatic Fauna (B13)						
Field Observations:						
Surface water present? Yes	No X	Depth (inches):		_	Vetland	
Water table present? Yes		Depth (inches):			ydrology	
Saturation present? Yes	No X	Depth (inches):		p	resent?	N
(includes capillary fringe)						
Describe recorded data (stream gauge, mo	nitoring well serie	al nhotos nrev	ious inspecti	ions) if a	vailable.	
Decembe recorded data (stream gauge, mo	moning well, aelle	ai pilotos, piev	iodo iriopetti	10110 <i>)</i> , 11 a	valiable.	
Remarks:						

EGETATION -	Ose scientific	names or	piai	its			Sampling Point:	U-bao-6/	11/2018-0
							50/20 Thresholds		
Tree Stratum	Plot Size (	30 ft.	)	Absolute %	Dominant	Indicator		20%	50%
rioo olialani	1 101 0120 (	00 11.	,	Cover	Species	Status	Tree Stratum	0	0
							Sapling/Shrub Stratum	6	15
							Herb Stratum	16	40
							Woody Vine Stratum	0	0
							Dominance Test Workshe	et	
							Number of Dominant		
							Species that are OBL,		
							FACW, or FAC:	2	(A)
							Total Number of Dominant	_	(D)
				0 =	Total Cover		Species Across all Strata:	5	(B)
					- Total Cover		Percent of Dominant		
Sapling/Shrub				Absolute %	Dominant	Indicator	Species that are OBL, FACW, or FAC:	40.00%	(A/B)
Stratum	Plot Size (	15 ft.	)	Cover	Species	Status	TAGW, GITAG.	+0.0070	(\(\)
Rubus alleghe	onioneie			20	Y	FACU	Prevalence Index Worksho	not	
Rhus copallin				10	<u> </u>	FACU	Total % Cover of:	eet	
Krius copailiri	um			10		FACU	OBL species 0 x 1	= 0	
							FACW species 0 x 2		
							FAC species 60 x 3	= 180	)
							FACU species 50 x 4		)
							UPL species 0 x 5		
							Column totals 110 (A)		(B)
							Prevalence Index = B/A =	3.45	
				30 =	Total Cover				
							Hydrophytic Vegetation In	dicators	
Herb Stratum	Plot Size (	5 ft.	)	Absolute %	Dominant	Indicator	Rapid test for hydrophy	tic vegetat	ion
rieib Stratum	1 101 0126 (	J 11.	,	Cover	Species	Status	Dominance test is >50%	6	
Verbesina alte				40	Y	FAC	Prevalence index is≤3.0		
	n clandestinum			20	Y	FAC	Morphological adaptation		
Trifolium repe	ens			20	Y	<u>FACU</u>	supporting data in Remarks	arks or on	a separa
							Problematic hydrophytic	: vegetatio	n*
							(explain)	vogotatio	••
							*Indicators of hydric soil and wetl	and hydrolo	av must be
							present, unless disturbed or prob		
							Definitions of Variation (	Strata	
							Definitions of Vegetation S Tree - Woody plants 3 in. (7.6 cm		diameter
							breast height (DBH), regardless of		
							Sapling/shrub - Woody plants le	ss than 3 in.	DBH and
				80 =	Total Cover		greater than 3.28 ft (1 m) tall.	h-A1 - 1	"
							<b>Herb</b> - All herbaceous (non-wood size, and woody plants less than		gardiess c
Woody Vine	Plot Size (	30 ft.	)	Absolute %	Dominant	Indicator	1.20, and moday planto loos than	o tan.	
Stratum	1 101 0126 (	50 II.	,	Cover	Species	Status	Woody vines - All woody vines g	reater than	3.28 ft in
							height.		
							Headman's et		
							Hydrophytic		
				0 =	Total Cover		vegetation		
				=	- TOTAL COVER		present? N	-	
narks: (Include n	hoto numbers he	re or on a	separ	ate shee					
S		5 51 511 a .	ори	01100					
3									

SOIL Sampling Point: U-bao-6/11/2018-01 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Color (moist) % Loc\*\* Type\* 0-10 10YR 4/2 100 silty loam \*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains \*\*Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histisol (A1) Polyvalue Below Surface (S8) Histic Epipedon (A2) (MLRA 147, 148) Coast Prairie Redox (A16)(MLRA 147, 148) Black Histic (A3) Piedmont Floodplain Soils (F19) Thin Dark Surface (S9) Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147) Very Shallow Dark Surface (TF12 Stratified Layers (A5) Loamy Gleyed Matrix (F2 2 cm Muck (A10) (LRR N) Other (Explain in Remarks) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) LRR N, MLRA 136) (LRR N, MLRA 147, 148) Umbric Surface (F13) (MLRA 136, 122) Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) MLRA 148) Sandy Redox (S5) Stripped Matrix (S6) Red Parent Material (F21)(MLRA 127, 147) \*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problema Restrictive Layer (if observed): Hydric soil present? N Type: Depth (inches): Remarks:

Project/Site: Holloway-Knox 138 kV Tran	smission Line	City/County:	Harrison	Report Name: <u>U</u> Sampling Date: 6	
Applicant/Owner: FirstEnergy	OTTIOGICTI EITO	_ State:			pl-bao-6/11/2018-03
Investigator(s): M. Thomayer, B.Otto Jacobs				Range: S 23 T 11N R 5W	
Landform (hillslope, terrace, etc.): hillside		Local relief (cor			Slope (%): 1
Subregion (LRR or MLRA) LRR N	Lat.:	40.3576897		g.: -81.051 <u>95388</u>	Datum: NAD 83
Soil Map Unit Name WnE - Westmoreland-Do	ekalb complex	x, 25 to 40 percer		NWI Classification: N/A	
Are climatic/hydrologic conditions of the site		-	Yes X		olain in remarks
		significantly		Are "normal	Yes
Are vegetatior, soil, or h	nydrology	naturally pr	oblematic':	circumstances" prese	
SUMMARY OF FINDINGS				(If needed, explain ar	iy alisweis ili lelilaiks
Hydrophytic vegetation present' No		la tha aam	nlad area wi	thin a watlands No.	
Hydric soil present? No		is the sam	pieu area wi	thin a wetland? No	_
Wetland hydrology present? No					
Remarks:					
Upland point for PEM Wetland PB-2	20 in routine	ely maintained	ROW.		
HYDROLOGY					
Wetland Hydrology Indicators:			Sec	ondary Indicators (minimu	um of two required)
Primary Indicators (minimum of one is require	ed; check all t	hat apply)		Surface Soil Cracks (B6)	, ,
Surface Water (A1)	•	tic Plants (B14)		Sparsely Vegetated Conca	ve Surface (B8)
High Water Table (A2)		Sulfide Odor (C1)		Drainage Patterns (B10)	ve dunade (Bo)
<del></del>					
Saturation (A3)		hizospheres on Li		Moss Trim Lines (B16)	20)
Water Marks (B1)	Roots (C3)			Dry-Season Water Table (	52)
Sediment Deposits (B2) Drift Deposits (B3)		of Reduced Iron (C n Reduction in Till	· —	Crayfish Burrows (C8)	Ilmagany (CO)
Algal Mat or Crust (B4)	Soils (C6)	1 Reduction in Till		Saturation Visible on Aeria Stunted or Stressed Plants	
<del></del>		Surface (C7)			(61)
Iron Deposits (B5)		Surface (C7)		Geomorphic Position (D2)	
Inundation Visible on Aerial	Other (Exp	lain in Remarks)		Shallow Aquitard (D3)	<b>A</b>
Imagery (B7)				Microtopographic Relief (D	4)
Water-Stained Leaves (B9)				FAC-Neutral Test (D5)	
Aquatic Fauna (B13)					
Field Observations:					
Surface water present? Yes	No X	_Depth (inches):		Wetland	
Water table present? Yes	No X	_Depth (inches):		hydrology	
Saturation present? Yes	No X	Depth (inches):		present?	<u>N</u>
(includes capillary fringe)					
Describe recorded data (stream gauge, mon	itoring well as	rial photos prev	ious inspecti	ons) if available:	
Describe recorded data (stream gauge, mon	itoring well, ac	mai priotos, prev	ious irispecti	oris), ii avallable.	
Remarks:					

	ose scientific i					Sampling Point:	Upi-bao-6/11/2
						50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft.	) Absolute 9		Indicator		20% 50%
	`		' Cover	Species	Status	Tree Stratum	0 0
						Sapling/Shrub Stratum Herb Stratum	0 0 20 50
				<del></del>		Woody Vine Stratum	0 0
			<del></del>	<u> </u>		Woody Vine Chalani	0 0
						Dominance Test Workshe	et
						Number of Dominant	
						Species that are OBL, FACW, or FAC:	2 (4)
						Total Number of Dominant	2 (A)
						Species Across all Strata:	3 (B)
			0	= Total Cover		Percent of Dominant	
			<u></u>	<del>_</del>		Species that are OBL,	
Sapling/Shrub	Plot Sizo (	15 ft.	, Absolute of	% Dominant	Indicator	FACW, or FAC:	66.67% (A/
Stratum	Plot Size (	15 11.	Cover	Species	Status		
			<u></u>			Prevalence Index Worksh	eet
						Total % Cover of:	
						OBL species 0 x 1	
						FACW species 0 x 2	
						FAC species 70 x 3 FACU species 30 x 4	
						UPL species 0 x 5	
						Column totals 100 (A)	
						Prevalence Index = B/A =	3.30
			0	= Total Cover		Undrambutia Variation II	
			、 Absolute of	% Dominant	Indicator	Hydrophytic Vegetation Ir	
Herb Stratum	Plot Size (	5 ft.	Cover	Species	Status	Rapid test for hydrophy X Dominance test is >50%	
Poa sp.			40	Y	FAC	Prevalence index is≤3.0	
Trifolia repens			20	Υ Υ	FACU	Morphological adaptation	
Verbesina alter			20	Y	FAC	supporting data in Rem	arks or on a sep
Taraxacum offi	cinale		10	N	FACU	sheet)	
Coronilla vaia			10	N	FAC	Problematic hydrophytic	c vegetation*
						(explain)	
						*Indicators of hydric soil and wetle present, unless disturbed or prob	
						,	
			<u> </u>			Definitions of Vegetation	Strata:
						Tree - Woody plants 3 in. (7.6 cm	,
						breast height (DBH), regardless	of height.
				<del>-</del>		Sapling/shrub - Woody plants le	ess than 3 in. DBH a
						greater than 3.28 ft (1 m) tall.	
			100	_= Total Cover		Herb - All herbaceous (non-wood	dy) plants, regardles
Woody Vine			, Absolute of	% Dominant	Indicator	size, and woody plants less than	3.28 ft tall.
Stratum	Plot Size (	30 ft.	) Cover	Species	Status	Woody vines - All woody vines	greater than 3 28 ft
				5,73.55		height.	greater triair 5.20 it i
						Hydrophytic	
						vegetation	
			0	_ = Total Cover		present? Y	_
	oto numbero be	ro or on o	oporato chas				
	oto numbers he	re or on a s	eparate shee				
	oto numbers he	re or on a s	eparate shee				
marks: (Include ph							
marks: (Include ph a sp. conservat							

SOIL

Sampling Point: Upl-bao-6/11/2018-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)  Depth Matrix Redox Features Texture Remarks  O-16 10YR 4/3 100 Silty clay loam  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining, M=Matrix  Indicators for Problematic Hydric Soils:							
0-16							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
*Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Dark Surface (S7)  Indicators for Problematic Hydric Soils:							
Dark Surface (S7)							
Histisol (A1) Polyvalue Below Surface (S8)2 cm Muck (A10) (MLRA 147)							
Histic Epipedon (A2) (MLRA 147, 148) Coast Prairie Redox (A16)(MLRA 147, 148)							
Black Histic (A3) Thin Dark Surface (S9) Piedmont Floodplain Soils (F19) Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147)							
Stratified Layers (A5)  Loamy Gleyed Matrix (F2  Very Shallow Dark Surface (TF12							
2 cm Muck (A10) (LRR N) Depleted Matrix (F3 Other (Explain in Remarks							
Depleted Below Dark Surface (A11) Redox Dark Surface (F6)							
Thick Dark Surface (A12)  Depleted Dark Surface (F7)  Sandy Mucky Mineral (S1)  Paday Pagassiana (F8)							
Sandy Mucky Mineral (S1)  (LRR N, MLRA 147, 148)  Redox Depressions (F8)  Iron-Manganese Masses (F12) LRR N, MLRA 136)							
Sandy Gleyed Matrix (S4)  Umbric Surface (F13) (MLRA 136, 122)							
Sandy Redox (S5) Piedmont Floodplain Soils (F19) MLRA 148)							
Stripped Matrix (S6) Red Parent Material (F21)(MLRA 127, 147)							
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problema							
Restrictive Layer (if observed):							
Type: Hydric soil present? N							
Depth (inches):							
Remarks:							
Certains.							

				Report Name: U	
Project/Site: Holloway-Knox 138 kV Tra	Insmission Line	City/County:	Harrison	Sampling Date: 6/	11/2018
Applicant/Owner: FirstEnergy		State:	Ohio	Sampling Point U	ol-bao-6/11/2018-02
Investigator(s): M. Thomayer, B.Otto Jaco				Range: S 23 T 11N R 5W	
Landform (hillslope, terrace, etc.): hillside		Local relief (co			Slope (%): 1
Subregion (LRR or MLRA) LRR N	Lat.:	40.35644735		.: <u>-81.05232966</u>	Datum: NAD 83
Soil Map Unit Name GuD2 - Guernsey silty	clay loam, 15 to	25 percent slop	es, eroded N	IVVI Classification: N/A	
Are climatic/hydrologic conditions of the sit		-		``	
	r hydrology			Are "normal	Yes_
Are vegetatior, soil, o	r hydrology	naturally pr	oblematic?	circumstances" prese	
SUMMARY OF FINDINGS				(If needed, explain an	y answers in remarks
Hydrophytic vegetation present' No Hydric soil present? No	-	le the cam	nlod aroa wit	hin a wotland? No.	
	-	is the sain	pieu area wit	hin a wetland? No	_
Wetland hydrology present? No	-				
Remarks:					
Upland point for PEM Wetland PE	3-21 in routine	ly maintained	I ROW.		
		•			
HYDROLOGY					
Wetland Hydrology Indicators:			Seco	ndary Indicators (minimu	ım of two required)
Primary Indicators (minimum of one is requ	ired: check all th	nat apply)		Surface Soil Cracks (B6)	
Surface Water (A1)		c Plants (B14)		Sparsely Vegetated Conca	vo Surfaco (B9)
` '					ve Sullace (Do)
High Water Table (A2)	Hydrogen S	Sulfide Odor (C1)		Prainage Patterns (B10)	
Saturation (A3)		nizospheres on L	······9 <u>——</u>	loss Trim Lines (B16)	
Water Marks (B1)	Roots (C3)			ry-Season Water Table (C	22)
Sediment Deposits (B2)		f Reduced Iron (0	· —	Crayfish Burrows (C8)	. (25)
Drift Deposits (B3)		Reduction in Till		Saturation Visible on Aerial	<b>0</b> , , ,
Algal Mat or Crust (B4)	Soils (C6)	o ( (O=)		Stunted or Stressed Plants	(D1)
Iron Deposits (B5)		Surface (C7)		Geomorphic Position (D2)	
Inundation Visible on Aerial	Other (Expl	ain in Remarks)		Shallow Aquitard (D3)	
Imagery (B7)				licrotopographic Relief (De	4)
Water-Stained Leaves (B9)			F	AC-Neutral Test (D5)	
Aquatic Fauna (B13)					
Field Observations:					
Surface water present? Yes	No X	Depth (inches)	:	Wetland	
Water table present? Yes	No X	Depth (inches)		hydrology	
Saturation present? Yes	No X	Depth (inches)		present?	N
(includes capillary fringe)		- ' ` ′		_	
Describe recorded data (stream gauge, mo	nitoring well, ae	rial photos, prev	ious inspectio	ns), if available:	
Remarks:					

						Sampling Point:	Opi bao 0/11/20
						50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft.	Absolute %	Dominant	Indicator	T 0: :	20% 50%
			' Cover	Species	Status	Tree Stratum Sapling/Shrub Stratum	0 0 0 0
						Herb Stratum	22 55
						Woody Vine Stratum	0 0
						Dominance Test Workshe	et
						Number of Dominant Species that are OBL,	
						FACW, or FAC:	1 (A)
						Total Number of Dominant	(/ //
						Species Across all Strata:	2 (B)
			0 =	Total Cover		Percent of Dominant	
						Species that are OBL,	
Sapling/Shrub	Plot Size (	15 ft.	Absolute %	Dominant	Indicator	FACW, or FAC:	50.00%(A/E
Stratum	1 101 0126 (	1011.	Cover	Species	Status		
						Prevalence Index Worksh	eet
						Total % Cover of:	
						OBL species 0 x 1	
						FACW species 0 x 2	
						FAC species 30 x 3	
						FACU species 30 x 4 UPL species 50 x 5	
						Column totals 110 (A)	
						Prevalence Index = B/A =	4.18
						Travalence maex 2/1	
			0 =	Total Cover			
			A1 1 . 0/	5		Hydrophytic Vegetation In	
Herb Stratum	Plot Size (	5 ft.	) Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydrophy	
Clusina may			50	Y	UPL	Dominance test is >50% Prevalence index is≤3.	
Glycine max Poa sp.			30	<u> </u>	FAC	Morphological adaptation	
Trifolium repens	•		20		FACU	supporting data in Rem	
Taraxacum offic			10	N	FACU	sheet)	and or on a cope
- rararasani sins						Problematic hydrophytic	c vegetation*
						(explain)	3
						*Indicators of hydric soil and wet	land hydrology must
						present, unless disturbed or prob	
						D (1) (1)	<u> </u>
						Definitions of Vegetation	
						Tree - Woody plants 3 in. (7.6 cn breast height (DBH), regardless	
						Sapling/shrub - Woody plants le	ess than 3 in. DBH ar
						greater than 3.28 ft (1 m) tall.	
			110 =	Total Cover	_	Herb - All herbaceous (non-wood	
Woody Vine	Diet C: /	20 <del>t</del>	, Absolute %	Dominant	Indicator	size, and woody plants less than	3.28 ft tall.
Stratum	Plot Size (	30 ft.	) Cover	Species	Status	Woody vines - All woody vines	greater than 3.28 ft i
						height.	
						Uvduonhvii-	
·						Hydrophytic vegetation	
			0 =	Total Cover		present? N	
						11	_
	to numbers he	re or on a ser	parate shee			1	
marks: (Include pho							
marks: (Include pho W		·					

SOIL

Sampling Point: Upl-bao-6/11/2018-02

Profile Des	cription: (Descri	i <u>be t</u> o th	e depth needed	to docu	ument th	ıe indicat	or or confirm the absence	ce of indicators.)
Depth (Inches)	Matrix Color (moist)	%		dox Fea			Texture	Remarks
0-16	10YR 4/1	100	Color (moist)	/0	Туре	T	silty clay loam	
0 10	101111111	100					only olay loam	
				<u> </u>				
					<u> </u>			
				<del></del>	<u> </u>			
					<b>├</b>			
*T	`an acoustration D	Danlet	ion DM Dadus	ad Matr	iv CC /	Carrard	ar Castad Cand Crains	
	oncentration, De PL=Pore Lining			ea iviatr	1x, CS=0	Sovered	or Coated Sand Grains	
Hydric Soi	I Indicators:						Indicators for I	Problematic Hydric Soils:
10.0.1	(0.4)		Dark Su				O and Models	(A40) (BH DA447)
Histisol	,		•		w Surfa	ce (S8)		(A10) (MLRA 147)
	pipedon (A2)		(MLRA		•			ie Redox (A16)(MLRA 147, 148)
Black Histic (A3) Thin Dark Surface (S9) Piedmont Floodplain Soils ( MLRA 136, 147)  (MLRA 136, 147)								
Hydrogen Sulfide (A4) Stratified Layers (A5)  Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F						F2		w Dark Surface (TF12
2 cm Muck (A10) (LRR N)  Depleted Matrix (F3)  Other (Explain in Remarks)								
Deplete	ed Below Dark S	urface (	A11) Redox I	Dark Sເ	urface (F	<del>-</del> 6)		
Thick Dark Surface (A12)  Depleted Dark Surface (F7)								
Sandy Mucky Mineral (S1) Redox Depressions (F8)								
(LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) LRR N, MLRA 136)								
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)								
Sandy Redox (S5) Piedmont Floodplain Soils (F19) <b>MLRA 148</b> ) Stripped Matrix (S6) Red Parent Material (F21) <b>(MLRA 127, 147)</b>								
Strippe	d Matrix (S6)		Red Pa	rent Ma	aterial (F	21) <b>(ML</b> R	RA 127, 147)	
*Indicators	of hydrophytic v	egetatio	n and wetland h	ydrolog	gy must l	be prese	nt, unless disturbed or p	oroblema
-	Layer (if observe	ed):					Uvdria aail mraaar	n42 N
Type: Depth (inch	P6).				-		Hydric soil preser	It? N
Boptii (iiioii					-			
Remarks:						-		

	acobs ace Lat.: nd-Coshocton comp	Local relief (col 40.344151 blex, 25 to 40 per me of the yea	n, Township, Ra ncave, convex, r Long.: cent slop∈ NV Yes X d disturbed?	Sampling Date Sampling Point nge S 22 T 11N R 5 none) convex -81.054849 VI Classification: N/A No (If no, e Are "normal circums present?	: Upl-mdt-6/12/2018-01 :W Slope (%): Datum: NAD 83
Hydrophytic vegetation present' Hydric soil present?  Wetland hydrology present?	lo	Is the sam	pled area withi	n a wetland?N	No
Upland data point adjacent to We	etland PB-22 and	l within mainta	ined ROW.		
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is result of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial  Imagery (B7)  Water-Stained Leaves (B9)  Aquatic Fauna (B13)	True Aquati Hydrogen S Oxidized Ri Roots (C3) Presence o Recent Iron Soils (C6) Thin Muck S	at apply) c Plants (B14) culfide Odor (C1) nizospheres on Li f Reduced Iron (C Reduction in Tille Surface (C7) ain in Remarks)	Su	dary Indicators (minir rface Soil Cracks (B6) arsely Vegetated Concainage Patterns (B10) ass Trim Lines (B16) y-Season Water Table ayfish Burrows (C8) turation Visible on Aerunted or Stressed Plane comorphic Position (D2 allow Aquitard (D3) crotopographic Relief (C-Neutral Test (D5)	(C2) ial Imagery (C9) its (D1)
Field Observations: Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe)  Describe recorded data (stream gauge, r		Depth (inches): Depth (inches): Depth (inches): al photos, previo		Wetland hydrology present?	N_
Remarks:					

Absolute % Cover	Dominant Species  Total Cover  Dominant Species	Indicator Status	20%   50%
O =  Absolute %  Cover	Species  Total Cover	Status	Tree Stratum         0         0           Sapling/Shrub Stratum         0         0           Herb Stratum         24         60           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,         0         (A)           FACW, or FAC:         0         (A)           Total Number of Dominant         Species Across all Strata:         2         (B)           Percent of Dominant         Species that are OBL,         FACW, or FAC:         0.00%         (A/B           Prevalence Index Worksheet           Total % Cover of:         0
0 = Absolute % Cover	Total Cover	Indicator	Sapling/Shrub Stratum         0         0           Herb Stratum         24         60           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,         0         (A)           FACW, or FAC:         0         (A)           Total Number of Dominant         2         (B)           Percent of Dominant         Species that are OBL,         ACW, or FAC:         0.00%         (A/B)           Prevalence Index Worksheet           Total % Cover of:         0         X 1 =         0           OBL species         0         X 2 =         0           FAC species         0         X 3 =         0           FAC species         0         X 3 =         0           FACU species         100         X 4 =         400
Absolute % Cover	Dominant		Herb Stratum
Absolute % Cover	Dominant		Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FACU species 100 x 4 = 400
Absolute % Cover	Dominant		Dominance Test Worksheet  Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  O.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species OX X 1 = O FACW species OX X 2 = O FAC species OX X 3 = O FACU species OX X 4 = 400
Absolute % Cover	Dominant		Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  O.00%  Prevalence Index Worksheet  Total % Cover of: OBL species OX X 1 = O FACW species OX X 2 = O FAC species OX X 3 = O FACU species OX X 4 = 400
Absolute % Cover	Dominant		Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  O.00%  Prevalence Index Worksheet  Total % Cover of: OBL species OX X 1 = O FACW species OX X 2 = O FAC species OX X 3 = O FACU species OX X 4 = 400
Absolute % Cover	Dominant		Species that are OBL,         (A)           FACW, or FAC:         0         (A)           Total Number of Dominant         2         (B)           Percent of Dominant         2         (B)           Percent of Dominant         3         (A)           Species that are OBL,         0         0           FACW, or FAC:         0         0           Prevalence Index Worksheet         0         0           Total % Cover of:         0         0           OBL species         0         0         0           FACW species         0         0         0           FAC species         0         0         0           FACU species         0         0         0
Absolute % Cover	Dominant		FACW, or FAC:
Absolute % Cover	Dominant		Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FACU species 100 x 4 = 400
Absolute % Cover	Dominant		Species Across all Strata:         2         (B)           Percent of Dominant         Species that are OBL,         (A/B)           FACW, or FAC:         0.00%         (A/B)           Prevalence Index Worksheet           Total % Cover of:         0
Absolute % Cover	Dominant		Percent of Dominant         Species that are OBL,           FACW, or FAC:         0.00%         (A/B           Prevalence Index Worksheet           Total % Cover of:         0         x 1 = 0           OBL species         0         x 2 = 0           FACW species         0         x 3 = 0           FAC species         0         x 4 = 400
Absolute % Cover	Dominant		Species that are OBL,           FACW, or FAC:         0.00%         (A/B           Prevalence Index Worksheet           Total % Cover of:         0         x 1 = 0           OBL species         0         x 2 = 0           FACW species         0         x 3 = 0           FAC species         0         x 4 = 400
Absolute % Cover	Dominant		Species that are OBL,           FACW, or FAC:         0.00%         (A/B           Prevalence Index Worksheet           Total % Cover of:         0         x 1 = 0           OBL species         0         x 2 = 0           FACW species         0         x 3 = 0           FAC species         0         x 4 = 400
Cover			FACW, or FAC:         0.00%         (A/B           Prevalence Index Worksheet           Total % Cover of:         0         x 1 =         0           OBL species         0         x 2 =         0           FACW species         0         x 3 =         0           FAC species         0         x 4 =         400
Cover			Prevalence Index Worksheet           Total % Cover of:         0         x 1 = 0         0         0         x 2 = 0         0         0         x 2 = 0         0         0         x 3 = 0         0         0         x 3 = 0         0         0         x 4 = 0         0
	Species	Status	Total % Cover of:  OBL species
0 =			Total % Cover of:  OBL species
0 =			OBL species       0       x 1 =       0         FACW species       0       x 2 =       0         FAC species       0       x 3 =       0         FACU species       100       x 4 =       400
0 =			OBL species       0       x 1 =       0         FACW species       0       x 2 =       0         FAC species       0       x 3 =       0         FACU species       100       x 4 =       400
0 =			FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FACU species 100 x 4 = 400
0 =			FAC species $0 \times 3 = 0$ FACU species $100 \times 4 = 400$
0 =			FACU species 100 x 4 = 400
0 =			
0 =			UPL species 20 x 5 = 100
0 =			Column totals 120 (A) 500 (B)
0 =			Prevalence Index = $B/A = 4.17$
0 =			r levalence index = B/A = 4.17
=	Total Cover		
	i Total Cover		Hydrophytic Vagetation Indicators
A I I4 - O/	D	l	Hydrophytic Vegetation Indicators:
Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation
Cover	Species	Status	Dominance test is >50%
60	Y	FACU	Prevalence index is≤3.0*
			Morphological adaptations* (provide
20	N	<u>UPL</u>	supporting data in Remarks or on a sepa
			sheet)
			Problematic hydrophytic vegetation*
			(explain)
			*Indicators of hydric soil and wetland hydrology must
			present, unless disturbed or problematic
			Definitions of Vandation Charles
			Definitions of Vegetation Strata:  Tree - Woody plants 3 in. (7.6 cm) or more in diamete
			at breast height (DBH), regardless of height.
			Sapling/shrub - Woody plants less than 3 in. DBH ar greater than 3.28 ft (1 m) tall.
120 =	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
			size, and woody plants less than 3.28 ft tall.
Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
			height.
			Hydrophytic
			vegetation
0 =	Total Cover		present? N
	120 = Absolute % Cover	40 Y N N N N N N N N N N N N N N N N N N	40 Y FACU UPL  N UPL  120 = Total Cover  Absolute % Dominant Species Status  0 = Total Cover

SOIL

Sampling Point: Upl-mdt-6/12/2018-01 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) % Color (moist) Loc\*\* Color (moist) Type\* 10YR 4/3 0-10 95 10YR 5/8 Silt loam 5 С M Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains \*\*Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: **Indicators for Problematic Hydric Soils:** Dark Surface (S7) Polyvalue Below Surface (S8) 2 cm Muck (A10) (MLRA 147) Histisol (A1) Histic Epipedon (A2) (MLRA 147, 148) Coast Prairie Redox (A16)(MLRA 147, 148) Thin Dark Surface (S9) Piedmont Floodplain Soils (F19 Black Histic (A3) Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147) Stratified Layers (A5) Loamy Gleyed Matrix (F2 Very Shallow Dark Surface (TF12) 2 cm Muck (A10) (LRR N) Depleted Matrix (F3) Other (Explain in Remarks Depleted Below Dark Surface (A11 Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) MLRA 148) Red Parent Material (F21)(MLRA 127, 147) Stripped Matrix (S6) \*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problem Restrictive Layer (if observed) Hydric soil present? N Type: Depth (inches): Remarks:

	Local re Lat.: 40.3300 m, 2 to 6 percent slope te typical for this time of the or hydrology sign	State: Ohio Section, Township, R elief (concave, convex 0034 Long	.: -81.06100922 Datum: NAD 83  NWI Classification: N/A
Hydrophytic vegetation present' Hydric soil present?  Wetland hydrology present?  No	ls t	he sampled area with	hin a wetland? No
Upland data point adjacent to Wet	land PB-23 and within	maintained ROW.	
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is req Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	uired; check all that apply)  True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizospher Roots (C3) Presence of Reduce Recent Iron Reductic Soils (C6) Thin Muck Surface (C) Other (Explain in Red	(B14)	Andary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:  Surface water present? Yes Water table present? Yes Saturation present? Yes (includes capillary fringe)  Describe recorded data (stream gauge, m	No X Depth (		Wetland hydrology present? N
Remarks:			

				Sampling Point: Upl-mdt-6/12/201 50/20 Thresholds
	A b = = l · + = 0/	Daminant	la dia atau	
Free Stratum Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator	20% 50%
,	Cover	Species	Status	Tree Stratum 0 0
				Sapling/Shrub Stratum 0 0
				Herb Stratum 23 58
	. <u></u>			Woody Vine Stratum 0 0
	<u> </u>			
				Dominance Test Worksheet
				Number of Dominant
				Species that are OBL,
				FACW, or FAC: 0 (A)
				Total Number of Dominant
				Species Across all Strata:(B)
	=	Total Cover		Percent of Dominant
				Species that are OBL,
Sapling/Shrub Plot Size ( 15 ft. )	Absolute %	Dominant	Indicator	FACW, or FAC: <u>0.00%</u> (A/B)
Stratum	Cover	Species	Status	
				Prevalence Index Worksheet
				Total % Cover of:
	· ——			OBL species $0 \times 1 = 0$
	<del></del>			FACW species $0 \times 2 = 0$
	· <del></del>			FAC species 10 x 3 = 30
	· -			FACU species 105 x 4 = 420
				UPL species $0 \times 5 = 0$
				Column totals 115 (A) 450 (B)
				Prevalence Index = $B/A = 3.91$
	<del></del>			1 16 valorice mack = B/7( =
	0 =	Total Cover		
				Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft. )	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation
Telb Stratum Plot Size ( 5 it. )	Cover	Species	Status	Dominance test is >50%
Poa pratensis	70	Υ	FACU	Prevalence index is≤3.0*
Dipsacus fullonum	20	N	FACU	Morphological adaptations* (provide
Ambrosia artemisiifolia	15	N	FACU	supporting data in Remarks or on a separ-
Verbesina alternifolia	10	N	FAC	sheet)
				Problematic hydrophytic vegetation*
				(explain)
				*Indicators of hydric soil and wetland hydrology must b
				present, unless disturbed or problematic
				Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
	<u> </u>			at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH and
	115 =	Total Cover		greater than 3.28 ft (1 m) tall.
				<b>Herb</b> - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall.
Woody Vine Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator	oizo, and woody pianto ioss than 5.20 it tall.
Stratum Plot Size ( 30 ft. )	Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
	· -			height.
	. <u> </u>			
	<u> </u>			
				Hydrophytic
	· ·			vegetation
	=	Total Cover		present? N_
narks: (Include photo numbers here or on a separ	ate sheet			
narks: (Include photo numbers here or on a separ	rate sheet			
narks: (Include photo numbers here or on a separ	ate sheet			

Sampling Point: Upl-mdt-6/12/2018-02

		e to the				indicator	or confirm the absence	of indicators.)
Depth	Matrix	0/		ox Fea		l**	Texture	Remarks
(Inches) 0-10	Color (moist) 10YR 3/2	% 95	Color (moist) 10YR 4/6	<u>%</u> 5	Type*	Loc**	Silty clay loam	
0-10	10113/2	90	10114/0	5	C	FL	Silly clay loan	
, ,		•		l Matrix	i, CS=Co	vered or	Coated Sand Grains	
	PL=Pore Lining, Indicators:	M=Mati	TIX					Problematic Hydric Soils:
Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Stripped	pipedon (A2) listic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR I d Below Dark Sulark Surface (A12) Mucky Mineral (SI) MLRA 147, 144 Gleyed Matrix (SI) d Matrix (S6)	urface ( <i>I</i> 2) 61) <b>8)</b> 4	(MLRA Thin Da (MLRA Loamy ( Deplete A11 X Redox I Deplete Redox I Iron-Ma Umbric Piedmon Red Pai	147, 14 rk Surfa 147, 14 Gleyed d Matrix Dark Sud Dark Depress nganes Surface nt Floodent Ma	ace (S9)  (H8)  Matrix (F3)  Inface (F6)  Surface (F6)  Surface (F8)  E Masse  E (F13) (N)  Inface (F2)	(F7) (F7) ) s (F12) I ILRA 13 ills (F19)	Coast Prai Piedmont I (MLRA 136) Other (Exp	ow Dark Surface (TF12) lain in Remarks
Type: Depth (inch	Layer (if observe	d)			-		Hydric soil prese	nt? Y
Remarks:								

Project/Site: Holloway-Knox 138 k	V Transmission Line	City/County:	Harrison	Report Name <u>U</u> Sampling Date 6	pland PB-24 /07/2018
Applicant/Owner: FirstEnergy		State:	Ohio	Sampling Point: U	pl-mdt-6/12/2018-03
Investigator(s) M. Thomayer, B.Otto	; Jacobs			e S 21 T 11N R 5W	
	nillslope		ncave, convex, noi		Slope (%): 1
Subregion (LRR or MLRA): LRR N	Lat.:	40.3300034	Long.: -	81.06100922	Datum: NAD 83
Soil Map Unit Name RcB - Richland s	ilt loam, 2 to 6 percen	t slope	NWI	Classification: N/A	
Are climatic/hydrologic conditions of the			<u></u>	No (If no, exp	
Are vegetatior, soil	, or hydrology			Are "normal circumsta	ances" Yes
Are vegetatior, soil	, or hydrology	naturally pr		oresent?	
SUMMARY OF FINDINGS			(	lf needed, explain an	y answers in remark
Hydrophytic vegetation present'	No				
Hydric soil present?	No	Is the sam	pled area within a	a wetland? No	
Wetland hydrology present?	No		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	140				
Remarks:	•				
Unland data point adiacont to	Motland DD 24 on	d within mainta	inad DOW		
Upland data point adjacent to	wetiand PB-24 and	a within mainta	linea ROW.		
HYDROLOGY					
Wetland Hydrology Indicators:			Seconda	ry Indicators (minimu	m of two required)
Primary Indicators (minimum of one is	required: check all th	at annly)		ce Soil Cracks (B6)	5. 15 159454)
Surface Water (A1)		tic Plants (B14)		sely Vegetated Conca	(a Curface (PO)
, ,		, ,		· -	ve Surface (Bo)
High Water Table (A2)	Hydrogen	Sulfide Odor (C1)		age Patterns (B10)	
Saturation (A3)	Oxidized R	Rhizospheres on Li	····9 —	Trim Lines (B16)	
Water Marks (B1)	Roots (C3)			Season Water Table (C	22)
Sediment Deposits (B2)		of Reduced Iron (C	· — ·	ish Burrows (C8)	
Drift Deposits (B3)		n Reduction in Tille		ation Visible on Aerial	
Algal Mat or Crust (B4)	Soils (C6)			ed or Stressed Plants	(D1)
Iron Deposits (B5)	Thin Muck	Surface (C7)	Geon	norphic Position (D2)	
Inundation Visible on Aerial	Other (Exp	olain in Remarks)	Shall	ow Aquitard (D3)	
Imagery (B7)			Micro	topographic Relief (D	1)
Water-Stained Leaves (B9)			FAC-	Neutral Test (D5)	
Aquatic Fauna (B13)			<u>—</u>		
Field Observations:					
Surface water present? Yes	No X	Depth (inches):		Wetland	
Water table present? Yes		Depth (inches):		hydrology	
Saturation present? Yes	${}$ No $\frac{\chi}{\chi}$			present?	N
(includes capillary fringe)	110	Deptil (illeries):	·	prosent:	
(includes capillary fillige)					
Describe recorded data (stream gauge	e. monitoring well. aer	rial photos, previo	us inspections), if	availa	
33	, J ,		-,,		
Remarks:					

rui Ihrocholde	
/20 Thresholds	
G	20% 50%
ee Stratum	0 0
pling/Shrub Stratum	0 0
erb Stratum	20 50
oody Vine Stratum	0 0
ominance Test Worksheen umber of Dominant	t
pecies that are OBL,	2 (4)
CW, or FAC:	(A)
otal Number of Dominant	4 (D)
ecies Across all Strata:	4 (B)
ercent of Dominant	
ecies that are OBL,	
ACW, or FAC:	50.00% (A/B)
evalence Index Workshee	et
otal % Cover of:	
BL species 0 x 1 =	= 0
ACW species 0 x 2 =	
C species 60 x 3 =	180
$\frac{1}{1}$ ACU species $\frac{1}{1}$ 40 x 4 =	= 160
PL species 0 x 5 =	
olumn totals 100 (A)	340 (B)
evalence Index = B/A =	3.40
_	
drophytic Vegetation Ind	licators:
Rapid test for hydrophytic	c vegetation
Dominance test is >50%	
Prevalence index is≤3.0*	
Morphological adaptation	
supporting data in Remai	rks or on a separa
sheet)	
Problematic hydrophytic	vegetation*
(explain)	_
 dicators of hydric soil and wetlar	nd hydrology must b
esent, unless disturbed or proble	matic
efinitions of Vegetation St	
ee - Woody plants 3 in. (7.6 cm)	
breast height (DBH), regardless	
pling/shrub - Woody plants les	s than 3 in. DBH and
eater than 3.28 ft (1 m) tall.	
rb - All herbaceous (non-woody	, ,
e, and woody plants less than 3	.28 ft tall.
advida Allinaadiiida -	contar than 2 00 to
<b>body vines</b> - All woody vines gr ight.	eater triari 3.28 ff IN
a	
Hydrophytic	
vegetation	
_	
•	
Hye	getation

Sampling Point: Upl-mdt-6/12/2018-03

		oe to the				indicator	or confirm the absence	e of indicators.)	
Depth (Inches)	Matrix Color (moist)	%	Red Color (moist)	ox Feat	tures Type*	Loc**	Texture	Remarks	
0-6	10YR 3/3	100	Color (moist)	70	Туре	LOC	Silty clay loam	rocks	
*Type: C=C	oncentration D=	-Depletic	n RM=Reduced	l Matrix	CS=Co	vered or	Coated Sand Grains		
· ·	PL=Pore Lining,		•	Matrix	, 00-00	voica oi	Coaled Carla Crains		
Hvdric Soil	Indicators:						Indicators for	Problematic Hydric Soils:	
Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Stripped	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR d Below Dark Si ark Surface (A1) Mucky Mineral (S , MLRA 147, 14 Gleyed Matrix (S Redox (S5) d Matrix (S6)	urface ( <i>F</i> 2) 61) <b>8)</b> 4	(MLRA) Thin Dai (MLRA) Loamy ( Depleted Redox D Pepleted Redox D Iron-Mai Umbric S Piedmoi Red Par	ne Belovi 147, 14 rk Surfa 147, 14 Gleyed d Matrix Dark Su Dark Su Depress nganes Surface nt Flood ent Ma	w Surface (8)  ace (S9)  Matrix (F3)  rface (F6)  Surface sions (F8  e Massee  (F13) (N  dplain Sc  terial (F2	F2 (F7) () (S (F12) I () () () () () () () () () () () () ()	Coast Prai Piedmont (MLRA 13 Very Shall Other (Exp	ow Dark Surface (TF12) olain in Remarks	
	_ayer (if observe ocks es): 6	ed)			- -		Hydric soil prese	ent? <u>N</u>	
Remarks:									

		- · · · ·			piand PB-25		
Project/Site: Holloway-Knox 138 kV	/ Transmission Line		Harrison	Sampling Date 6/			
Applicant/Owner: FirstEnergy	<del> </del>	State:			pl-mdt-06122018-04		
Investigator(s) M. Thomayer, B.Otto;				nge S 21 T 11N R 5W	Clana (0/)		
Landform (hillslope, terrace, etc.) <u>te</u> Subregion (LRR or MLRA): LRR N	rrace Lat.:	,	ncave, convex, i	none) <u>convex</u> -81.061 <u>60298</u>	Slope (%): Datum: NAD 83		
Soil Map Unit Name RcB - Richland silt			Long	VI Classification: N/A	Datum. NAD 03		
Are climatic/hydrologic conditions of the			Yes X	<u> </u>	olain in remarks		
Are vegetation , soil X	, or hydrology	significantly	y disturbed?	Are "normal circumsta	inces" Yes		
Are vegetatior , soil	, or hydrology	naturally pr		present?			
	_ , , , , _			(If needed, explain any	y answers in remark		
SUMMARY OF FINDINGS							
Hydrophytic vegetation present	No						
Hydric soil present?	No	Is the sam	pled area withi	n a wetland? No	<u></u>		
Wetland hydrology present?	No				_		
Remarks:							
Upland data point adjacent to V	Vetland PB-25 a	nd within mainta	ined ROW.				
HYDROLOGY							
Wetland Hydrology Indicators:			Secon	dary Indicators (minimu	m of two required)		
Primary Indicators (minimum of one is r	required; check all t	hat apply)	Su	rface Soil Cracks (B6)			
Surface Water (A1)	True Aqu	atic Plants (B14)	Sp	arsely Vegetated Concav	e Surface (B8)		
High Water Table (A2)		Sulfide Odor (C1)	Dr.	ainage Patterns (B10)	age Patterns (B10)		
Saturation (A3)		Rhizospheres on Li		ss Trim Lines (B16)			
Water Marks (B1)	Roots (C		-	y-Season Water Table (C	(2)		
Sediment Deposits (B2)		of Reduced Iron (C		Crayfish Burrows (C8)			
Drift Deposits (B3)	Recent Ir	on Reduction in Tille	ed Sa	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Soils (C6	)	Stu	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	Thin Muc	k Surface (C7)	Ge	eomorphic Position (D2)			
Inundation Visible on Aerial	Other (Ex	plain in Remarks)	Sh	allow Aquitard (D3)			
Imagery (B7)			Mi	crotopographic Relief (D4	<b>!</b> )		
Water-Stained Leaves (B9)			FA	C-Neutral Test (D5)			
Aquatic Fauna (B13)							
Field Observations:							
Surface water present? Yes	No X	Depth (inches):	:	Wetland			
Water table present? Yes	No X			hydrology			
Saturation present? Yes	No X	Depth (inches):	<u> </u>	present?	N		
(includes capillary fringe)							
Describe recorded data (atmosphericans	it-vineell		:	if availa			
Describe recorded data (stream gauge,	, monitoring well, as	eriai pnotos, previo	ous inspections),	if availa			
Remarks:							

	50/20 Thresholds
m Plot Size ( 30 ft. ) Absolute % Dominant Indicator	20% 50%
·	Tree Stratum 0 0
	Sapling/Shrub Stratum 0 0
	Herb Stratum 24 60
	Woody Vine Stratum 0 0
	Barrier Tarriwa Island
	Dominance Test Worksheet Number of Dominant
	Species that are OBL,
	FACW, or FAC: 0 (A)
	Total Number of Dominant
	Species Across all Strata: 3 (B)
O Tatal Course	· - · · · · · · · · · · · · · · · · · ·
	Percent of Dominant
	Species that are OBL,
PIOLOIZE ( IDII. )	FACW, or FAC: 0.00% (A/B)
Cover Species Status	
	Prevalence Index Worksheet
	Total % Cover of:
	OBL species0 x 1 =0
	FACW species 0 x 2 = 0
	FAC species $0 \times 3 = 0$
	FACU species 120 x 4 = 480
	UPL species $0 \times 5 = 0$
	Column totals 120 (A) 480 (B)
	Prevalence Index = $B/A = 4.00$
0 = Total Cover	
	Hydrophytic Vegetation Indicators:
m Plot Size ( 5 ft. ) Absolute % Dominant Indicator	Rapid test for hydrophytic vegetation
Cover Species Status	Dominance test is >50%
pratense 60 Y FACU	Prevalence index is≤3.0*
ensis 30 Y FACU	Morphological adaptations* (provide
major 30 Y FACU	supporting data in Remarks or on a separa
<u> </u>	sheet)
	Problematic hydrophytic vegetation*
	(explain)
	*Indicators of hydric soil and wetland hydrology must b
	present, unless disturbed or problematic
	Definitions of Vegetation Strata:
	Tree - Woody plants 3 in. (7.6 cm) or more in diameter
	at breast height (DBH), regardless of height.
	Sapling/shrub - Woody plants less than 3 in. DBH an
	greater than 3.28 ft (1 m) tall.
120 = Total Cover	Herb - All herbaceous (non-woody) plants, regardless
Abachita III Daminant III disets	size, and woody plants less than 3.28 ft tall.
Plot Size ( 30 ft. ) Absolute % Dominant Indicator	
	Woody vines - All woody vines greater than 3.28 ft in
	height.
	Undrambutic
	_
= Total Cover	present? N_
= Total Cover  ude photo numbers here or on a separate sheet	Hydrophytic vegetation present? N

Sampling Point: Upl-mdt-06122018-04

		oe to the				indicator	or confirm the absence	e of indicators.)	
Depth (Inches)	Matrix Color (moist)	%	Red Color (moist)	ox Fea	tures Type*	Loc**	Texture	Remarks	
0-6	10YR 5/4	100	Color (moist)	/0	туре	LUC	Silty clay loam	gravel	
0.0	10111074						City city realit	giave	
*Type: C-C	oncentration D-	-Depletic	n RM-Reduced	Matriy	CS-Cc	wered or	Coated Sand Grains		
	PL=Pore Lining,			ı ıvıatı ix	, 03=00	wered or	Coaled Sand Grains		
	Indicators:						Indicators for	Problematic Hydric Soils:	
Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Stripped	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR d Below Dark Si ark Surface (A1) Mucky Mineral (S , MLRA 147, 14 Gleyed Matrix (S Redox (S5) d Matrix (S6)	urface ( <i>F</i> 2) 61) <b>8)</b> 4	(MLRA Thin Da (MLRA Loamy ( Deplete Redox D Iron-Mai Umbric : Piedmoi Red Par	ue Beloo 147, 14 rk Surfa 147, 14 Gleyed d Matrio Dark Su d Dark Depress nganes Surface nt Flood rent Ma	w Surface (8)  ace (S9)  Matrix (F3)  rface (F3)  surface (F6)  Surface  (F13) (N  dplain Sc  terial (F2)	F2 (F7) (s) es (F12) I MLRA 13 bils (F19) 21)(MLRA	Coast Prai Piedmont (MLRA 13 Very Shall Other (Exp	ow Dark Surface (TF12) olain in Remarks	
	_ayer (if observe ravel es): 6	ed)			- -		Hydric soil prese	ent? N	
Remarks:									

Project/Site: Holloway-Knox 138	kV Transmission Line	City/County:	Harrison	Report Name: Sampling Date:	Wetland PB-01 5/24/2018	
Applicant/Owner: FirstEnergy		State:	Ohio	Sampling Point: W-tmq-05/24/18-04		
Investigator(s): T. Qualio, J.Freer;	Jacobs		n, Township, Range:			
Landform (hillslope, terrace, etc.):	depressional		icave, convex, none		Slope (%): 1-3	
Subregion (LRR or MLRA): LRR N	<u> </u>		0.451423 Long.:		9639 Datum: WGS 84	
	-					
Soil Map Unit Name: RgD - Rigley s	andy loam, 15 to 25 per	cent slopes	INVVI	Classification: N/A	4	
Are climatic/hydrologic conditions of t	he site typical for this ti	-		lo (If no, e	explain in remarks)	
Are vegetation, soil	, or hydrology	significantly	disturbed? A	re "normal circums	tances" Yes	
Are vegetation, soil	, or hydrology	naturally pr	oblematic? p	resent?		
			(I	f needed, explain a	any answers in remarks)	
SUMMARY OF FINDINGS						
Hydrophytic vegetation present? Hydric soil present? Wetland hydrology present?	Yes Yes Yes	Is the sam	pled area within a v	wetland? \(\sigma\)	<u>′es</u>	
PEM wetland in routinely m	aintained ROW, de	pressional wetla	nd drains into N	HD stream.		
HYDROLOGY						
Wetland Hydrology Indicators:			Secondar	y Indicators (minim	um of two required)	
Primary Indicators (minimum of one i	s required; check all tha	t apply)	Surfa	ce Soil Cracks (B6)	)	
X Surface Water (A1)	True Aq	uatic Plants (B14)	Spars	sely Vegetated Con	cave Surface (B8)	
X High Water Table (A2)	Hydroge	n Sulfide Odor (C1)	Draina	age Patterns (B10)		
X Saturation (A3)	Oxidized	Rhizospheres on L	iving Moss	Trim Lines (B16)		
Water Marks (B1)	Roots (C	3)	Dry-S	eason Water Table	e (C2)	
Sediment Deposits (B2)	Presenc	e of Reduced Iron (C		ish Burrows (C8)		
Drift Deposits (B3)		ron Reduction in Till		ration Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Soils (Ce			ted or Stressed Plants (D1)		
Iron Deposits (B5)		ck Surface (C7)		norphic Position (D2)		
Inundation Visible on Aerial	Other (E	xplain in Remarks)		ow Aquitard (D3)		
Imagery (B7)				topographic Relief	(D4)	
Water-Stained Leaves (B9)			X FAC-I	Neutral Test (D5)		
Aquatic Fauna (B13)						
Field Observations:						
Surface water present? Yes	X No	Depth (inches):	1	Wetland		
Water table present? Yes	X No	Depth (inches):	10	hydrology		
Saturation present? Yes	X No	Depth (inches):	0	present?	<u>Y</u>	
(includes capillary fringe)						
Describe recorded data (stream gauç	ge, monitoring well, aeria	al photos, previous i	nspections), if availa	ble:		
Remarks:						
ivenialis.						

#### **VEGETATION** - Use scientific names of plants

						Sampling Point: 50/20 Thresholds	W-tmq-05/24/18-0
			Aboolute 0/	Daminant	Indiantos	30/20 Thresholds	000/ 500/
Free Stratum	Plot Size (	30 ft. )	Absolute %	Dominant	Indicator		20% 50%
			Cover	Species	Status	Tree Stratum	0 0
						Sapling/Shrub Stratum	0 0
						Herb Stratum	25 63
						Woody Vine Stratum	0 0
						•	
						Dominance Test Workshee	
						Dominance rest workshee	•
						Number of Dominant	
						Species that are OBL,	
						FACW, or FAC:	2 (A)
						Total Number of Dominant	
						Species Across all Strata:	2 (B)
						opecies Across air otrata.	(D)
			0 =	Total Cover		Percent of Dominant	
						Species that are OBL,	
apling/Shrub	DI + O: +	456	Absolute %	Dominant	Indicator	FACW, or FAC:	100.00% (A/B)
Stratum	Plot Size (	15 ft. )	Cover	Species	Status		
						Dravelance Index Westerne	-4
						Prevalence Index Workshee	et
						Total % Cover of:	
						OBL species 45 x 1	= 45
						FACW species 60 x 2	
						FAC species 20 x 3	
						FACU species 0 x 4	
						UPL species 0 x 5	
						· —	
						Prevalence Index = B/A =	1.80
			0 =	<ul> <li>Total Cover</li> </ul>			
						Hydrophytic Vegetation Ind	licators:
Herb Stratum	Plot Size (	5 ft. )	Absolute %	Dominant	Indicator	X Rapid test for hydrophytic	c vegetation
	•	,	Cover	Species	Status	X Dominance test is >50%	
Onoclea sensibilis			45	Υ	FACW	X Prevalence index is ≤3.0	*
Carex vulpinoidea			35	Y	OBL	Morphological adaptation	e* (provido
Solidago rugosa			20	N	FAC	supporting data in Rema	
Impatiens capensis			15		FACW	sheet)	iks oi oii a sepaiai
Symplocarpus foetidu			10	N	OBL	sileet)	
Sympiocarpus idelidi	is			N	UBL	Dealth and in headers he die	
						Problematic hydrophytic	vegetation" (explai
						*Indicators of hydric soil and wetl	
						present, unless disturbed or prob	lematic
						Definitions of Vegetation S	trata:
						Tree - Woody plants 3 in. (7.6 cm	
						breast height (DBH), regardless of	of height.
<del></del>						Sapling/shrub - Woody plants le	ss than 3 in. DBH and
			125	Total Cover		greater than 3.28 ft (1 m) tall.	
			125 =	= rotar Cover		3	
						Herb - All herbaceous (non-wood	
Woody Vine	DI + 0: -:		Absolute %	Dominant	Indicator	size, and woody plants less than	3.28 ft tall.
Stratum	Plot Size (	30 ft. )	Cover	Species	Status	Management and the second	
			-			Woody vines - All woody vines g height.	reater than 3.28 ft in
						neight.	
						Hydrophytic	
		<del></del>			· <del></del>	vegetation	
			0 =	Total Cover		present? Y	
				2 20.0.			-
	numbers here	or on a separate	sheet)				
iarks: (Include photo i							
iarks: (Include photo i							
iarks: (Include photo i							
iarks: (Include photo i							
iarks: (Include photo i							

SOIL Sampling Point: W-tmq-05/24/18-04

Depth	Matrix		Red	dox Feat	tures		Texture		Remarks		
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Textu	10	Remarks		
0-12	10 YR 4/2	75	10 YR 4/6	25	С	М	loam sand				
					1						
					1						
			<u> </u>								
	oncentration, D=D PL=Pore Lining, M			latrix, CS	S=Covere	d or Coa	ted Sand Grair	ns			
	Indicators:	I-Matrix					Indic	ators for Proh	lematic Hydric Soils:		
yano oon	maioators.		Dark Su	ırfaca (S	:7)		maio	210131011102	icinatio riyano cons.		
Histisol	(A1)			•	•	(S8) (MLRA2 cm Muck (A10) (MLRA 147)					
Histic E	pipedon (A2)		147, 14		V Suriace	(SO) (WIL		oast Prairie R	edox (A16) (MLRA 147, 148)		
	istic (A3)		Thin Da	•	ce (S9)				plain Soils (F19)		
Hydroge	en Sulfide (A4)		(MLRA		` ,			VILRA 136, 14	. , ,		
	d Layers (A5)		Loamy	Gleyed N	Matrix (F2	)	Very Shallow Dark Surface (TF12)				
2 cm M	uck (A10) <b>(LRR N</b>	)	X Deplete	d Matrix	(F3)		<u> </u>	ther (Explain i	n Remarks)		
	d Below Dark Sur		· —		face (F6)						
	ark Surface (A12)				Surface (F	7)					
•	Mucky Mineral (S1	,			ions (F8)	(E12) (II	RR N, MLRA 1	36/			
	, MLRA 147, 148)			-	(F13) <b>(M</b> l			30)			
	Gleyed Matrix (S4)	)					/ILRA 148)				
	Redox (S5) d Matrix (S6)						127, 147)				
	a Matrix (CO)				oa. (	, (	,,				
ndicators o	of hydrophytic veg	etation a	and wetland hydro	logy mu	st be pres	sent, unle	ss disturbed o	r problematic			
			•	0,	•			•			
estrictive L	ayer (if observed)	):									
уре:							Hydric s	soil present?	Υ		
epth (inche	es):				_						
emarks:											

					Re	eport Name:	Wetland PB-02	
Project/Site: Holloway-Kno:	x 138 kV Transn	nission Line	City/County: Harrison			Sampling Date: 5/24/2018		
Applicant/Owner: FirstEnerg			State:	Ohio		Sampling Point: W-tmq-05/24/18-0		
Investigator(s): T. Qualio, J.Fr	reer; Jacobs		Section	n, Township, Ra	inge: S2	23 T12N R5W		
Landform (hillslope, terrace, etc.	.): depressi	ional	Local relief (con-	cave, convex, n	none):	concave	Slope (%): 1-3	
Subregion (LRR or MLRA): L	.RR N	Lat.:	40	0.448444 Long.	.:	-81.049	9571 Datum: WGS 84	
Soil Map Unit Name: Or - Orrvil	lle silt loam, 0 to	3 percent slopes	s, occasionally flo	ooded N	NWI Classi	ification: N/A	1	
Are climatic/hydrologic condition	s of the site typi	ical for this time o	of the vear?	Yes X	No	(If no. e	explain in remarks)	
Are vegetation , soil	, or l		significantly				Van	
Are vegetation, soil	, or l		naturally pro		Are "no presen	ormal circums	tances"	
Ale vegetation, soil	,		IIaturany pro	Julemane:	•		ny answers in remarks)	
	=				(11 1100.	ucu, oxpiuii. a	ny anomoro in romana,	
SUMMARY OF FINDINGS	<u>S</u>							
Hydrophytic vegetation present?								
Hydric soil present?	Yes		Is the samp	pled area within	n a wetlar	nd? Y	<u>'es</u>	
Wetland hydrology present?	Yes	,						
Remarks:								
DEM - dendin modical		. 5014/ -1		I destantant	\" ID =			
PEM wetland in routinel	y maintainea	ROW, aepres	ssional wetlar	nd drains into	NHU S	tream.		
HYDROLOGY						. ,		
Wetland Hydrology Indicat		Last all thet en			-	*	um of two required)	
Primary Indicators (minimum of	one is requirea;					oil Cracks (B6)		
X Surface Water (A1)	•		c Plants (B14)			_	cave Surface (B8)	
High Water Table (A2)  X Saturation (A3)	-		<del></del> <u>-</u> -			Patterns (B10) Lines (B16)		
Water Marks (B1)		Oxidized Rhi Roots (C3)	Titilizoophoroo on Living			n Water Table	(C2)	
Sediment Deposits (B2)	-		· — ·			urrows (C8)	(02)	
Drift Deposits (B3)	-		Reduction in Tille		-	uration Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Soils (C6)	Troduction		Stunted or	nted or Stressed Plants (D1)		
Iron Deposits (B5)	•	Thin Muck S	Surface (C7)			morphic Position (D2)		
Inundation Visible on Aerial	I		ain in Remarks)			uitard (D3)	,	
Imagery (B7)	•	_		N	Microtopog	raphic Relief	(D4)	
Water-Stained Leaves (B9)	1			X F	FAC-Neutra	al Test (D5)		
Aquatic Fauna (B13)								
Field Observations:								
Surface water present?	Yes X	No	Depth (inches):	1		etland		
Water table present?	Yes		Depth (inches):		-	drology	V	
Saturation present? (includes capillary fringe)	Yes X	No	Depth (inches):	0-3	þr	esent?	<u>Y</u>	
(Illicidues capillary lillige)								
Describe recorded data (stream	gauge, monitori	ng well, aerial ph	otos, previous in	spections), if av	/ailable:			
		•	• •					
Remarks:								

						Sampling Point:	W-tmq-05/24/1
						50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft. )	Absolute %	Dominant	Indicator		20% 50%
rice ottatum	1 101 0120 (	30 It. )	Cover	Species	Status	Tree Stratum	0 0
						Sapling/Shrub Stratum	0 0
						Herb Stratum	22 55
			<del></del>			Woody Vine Stratum	0 0
					$\overline{}$	vvoody vine Stratum	0 0
i						Dominance Test Worksheet	t
<u> </u>						Number of Dominant	
′						Species that are OBL,	
3						FACW, or FAC:	2 (A
)							
						Total Number of Dominant	
						Species Across all Strata:	(E
			0 =	<ul> <li>Total Cover</li> </ul>		Percent of Dominant Species	
			<u> </u>			that are OBL, FACW, or	
Sapling/Shrub			Absolute %	Dominant	Indicator	FAC:	100.00% (A
Stratum	Plot Size (	15 ft. )	Cover	Species	Status	1	(/
			00761	Openies	Otatus		
						Prevalence Index Workshee	et
•			_	_	_	Total % Cover of:	
						OBL species 10 x 1	= 10
						FACW species 100 x 2	
						FAC species 0 x 3	
						FACU species 0 x 4	
						UPL species 0 x 5	
						Column totals 110 (A)	210(E
						Prevalence Index = B/A =	1.91
			0 =	= Total Cover			
				- Total Cover			
						Hydrophytic Vegetation Ind	icators:
Herb Stratum	Plot Size (	5 ft. )	Absolute %	Dominant	Indicator	X Rapid test for hydrophytic	c vegetation
					iliulcatoi	7. Rapia toot for Hydrophlytic	
TIEID Stratum	1 101 0126 (	J II. )	Cover	Species	Status	<del></del>	
	1 101 0126 (	J 11. )		Species	Status	X Dominance test is >50%	-
Poa palustris	1 101 0120 (	J 11. )	65	Species Y	Status FACW	X Dominance test is >50% X Prevalence index is ≤3.0*	•
Poa palustris  Juncus effusus		J II. )	65 25	Species Y Y	Status FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0° Morphological adaptation	s* (provide
Poa palustris Juncus effusus Vernonia noveborac		J II. ,	65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remai	s* (provide
Poa palustris  Juncus effusus  Vernonia noveborac  Carex lurida		3 it. )	65 25	Species Y Y	Status FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0° Morphological adaptation	s* (provide
Poa palustris Juncus effusus Vernonia noveborac Carex lurida		5 it. ,	65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet)	s* (provide rks or on a sepa
Poa palustris Juncus effusus Vernonia noveborac Carex lurida		3 n. ,	65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remai	s* (provide rks or on a sepa
Poa palustris Juncus effusus Vernonia noveborac Carex lurida		J ,	65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic	s* (provide rks or on a sepa vegetation* (exp
Poa palustris Juncus effusus Vernonia noveborac Carex lurida		J ,	65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet)	s* (provide rks or on a sepa vegetation* (exp and hydrology mu
Poa palustris Juncus effusus Vernonia noveborac Carex lurida		J ,	65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic ¹Indicators of hydric soil and wetle	s* (provide rks or on a sepa vegetation* (exp and hydrology mu
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic ¹Indicators of hydric soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present.	us* (provide rks or on a sepa vegetation* (exp and hydrology mu lematic
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic ¹Indicators of hydric soil and wetle	us* (provide rks or on a sepa vegetation* (exp and hydrology mu lematic
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic ¹Indicators of hydric soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present.	us* (provide rks or on a sepa vegetation* (exp and hydrology mu lematic
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic ¹Indicators of hydric soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present.	us* (provide rks or on a sepa vegetation* (exp and hydrology mu lematic
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remaisheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation St	is* (provide rks or on a sepa vegetation* (exp and hydrology mu lematic rata:
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic ¹Indicators of hydric soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present, unless disturbed or problematic hydrophytic soil and wetle present.	is* (provide rks or on a separate rks or
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remaisheet) Problematic hydrophytic '*Indicators of hydric soil and wetle present, unless disturbed or problemation of Vegetation St	is* (provide rks or on a separate rks or
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic * *Indicators of hydric soil and wetle present, unless disturbed or problemation of Vegetation St  Tree - Woody plants 3 in. (7.6 cm breast height (DBH), regardless of Sapling/shrub - Woody plants let	is* (provide rks or on a sepa vegetation* (expand hydrology mulematic rrata:  1) or more in diamof height.  1) ss than 3 in. DBH
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10 10	Species Y Y N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remaisheet) Problematic hydrophytic '*Indicators of hydric soil and wetle present, unless disturbed or problemation of Vegetation St	is* (provide rks or on a sepa vegetation* (expand hydrology mulematic rrata:  1) or more in diamof height.  1) ss than 3 in. DBH
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10 10	Species Y N N	FACW FACW	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic '*Indicators of hydric soil and wells present, unless disturbed or problemation of Vegetation St.  Tree - Woody plants 3 in. (7.6 cm breast height (DBH), regardless of Sapling/shrub - Woody plants les greater than 3.28 ft (1 m) tall.	is* (provide rks or on a separks or on a separ
Poa palustris Juncus effusus Vernonia noveborac Carex lurida			65 25 10 10 10	Species Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic * *Indicators of hydric soil and wetle present, unless disturbed or problemation of Vegetation St  Tree - Woody plants 3 in. (7.6 cm breast height (DBH), regardless of Sapling/shrub - Woody plants let	is* (provide rks or on a sepa vegetation* (exp and hydrology mulematic rata:  1) or more in diamof height.  1) ss than 3 in. DBH  1) plants, regardle
Poa palustris Juncus effusus Vernonia noveborad Carex lurida		30 ft. )	65 25 10 10 10	Species Y Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic value in indicators of hydric soil and wetle present, unless disturbed or problemations of Vegetation States in the indicators of hydric soil and wetle present, unless disturbed or problematic hydrogeness of the indicators of Vegetation States in its indicators	is* (provide rks or on a sepa vegetation* (exp and hydrology mulematic rata:  1) or more in diamof height.  1) ss than 3 in. DBH  1) plants, regardle
Poa palustris Juncus effusus Vernonia noveborac Carex lurida	censis		65 25 10 10 10	Species Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic value in indicators of hydric soil and wetle present, unless disturbed or problemations of Vegetation States in its indicators of hydric soil and wetle present, unless disturbed or problematic hydrogeness of the indicators of Vegetation States in its indicators in	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.
Poa palustris Juncus effusus Vernonia noveborac Carex lurida	censis		65 25 10 10 10	Species Y Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States - Woody plants 3 in. (7.6 cm breast height (DBH), regardless of Sapling/shrub - Woody plants lest greater than 3.28 ft (1 m) tall.  Herb - All herbaceous (non-wood size, and woody plants less than size)	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.
Poa palustris Juncus effusus Vernonia noveborad Carex lurida	censis		65 25 10 10 10	Species Y Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic value in indicators of hydric soil and wetle present, unless disturbed or problemations of Vegetation States in its indicators of hydric soil and wetle present, unless disturbed or problematic hydrogeness of the indicators of Vegetation States in its indicators in	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.
Poa palustris Juncus effusus Vernonia noveborad Carex lurida	censis		65 25 10 10 10	Species Y Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic value in indicators of hydric soil and wetle present, unless disturbed or problemations of Vegetation States in its indicators of hydric soil and wetle present, unless disturbed or problematic hydrogeness of the indicators of Vegetation States in its indicators in	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.
Poa palustris Juncus effusus Vernonia noveborac Carex lurida	censis		65 25 10 10 10	Species Y Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0' Morphological adaptation supporting data in Remainsheet) Problematic hydrophytic value and vetter an	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.
Poa palustris Juncus effusus Vernonia noveborac Carex lurida  Barrian	censis		65 25 10 10 10	Species Y Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remaisheet) Problematic hydrophytic ¹*Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the season of t	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.
Poa palustris Juncus effusus Vernonia noveborad Carex lurida	censis		65 25 10 10 10 110 Absolute % Cover	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida	censis		65 25 10 10 10 110 Absolute % Cover	Species Y Y N N T T Total Cover	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remaisheet) Problematic hydrophytic ¹*Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the season of t	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida	censis		65 25 10 10 10 110 Absolute % Cover	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida  ody Vine Stratum	Plot Size (	30 ft. )	65	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida  ody Vine Stratum	Plot Size (	30 ft. )	65	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida	Plot Size (	30 ft. )	65	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida  ody Vine Stratum	Plot Size (	30 ft. )	65	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida  ody Vine Stratum	Plot Size (	30 ft. )	65	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff
Poa palustris Juncus effusus Vernonia noveborac Carex lurida  ody Vine Stratum	Plot Size (	30 ft. )	65	Species Y N N N  Total Cover  Dominant Species	Status FACW FACW OBL	X Dominance test is >50% X Prevalence index is ≤3.0* Morphological adaptation supporting data in Remarsheet) Problematic hydrophytic *Indicators of hydric soil and wells present, unless disturbed or problemations of Vegetation States of the second of th	vegetation* (expand hydrology mulematic  rata:  o) or more in diamof height.  ss than 3 in. DBH  y) plants, regardle 3.28 ft tall.  reater than 3.28 ff

SOIL Sampling Point: W-tmg-05/24/18-03

								- Cuiii	pg . c	
Profile Desc	ription: (Describe	to the de	enth needed to do	ocument	the indic	ator or co	onfirm the a	absence of ind	licators )	
	Matrix	, to the d		dox Feat		4101 01 01		20001100 01 1110		
Depth (Inches)	Color (moist)	%	Color (moist)	% %	Type*	Loc**	Т	exture	Remarks	
0-3	10 YR 4/1	100	Color (moist)	70	Type	1	clay loa	m	saturated	
3-12	10 YR 5/1	60	10 YR 5/6	40	С	М	clay loa		Saturated	
			10 111 0/0	0 111 0/0 40 0 IVI						
	oncentration, D=D PL=Pore Lining, M		RM=Reduced M	atrix, CS	S=Covere	d or Coa	ted Sand G	Grains		
Hydric Soil	Indicators:						lr	dicators for	Problematic Hydric Soils:	
Histisol	(A4)		Dark Su	`	,			2 cm Muck	(A10) ( <b>MLRA 147)</b>	
<b>—</b>	oipedon (A2)		Polyvalu <b>147, 14</b> 8		/ Surface	(S8) (ML	.RA		rie Redox (A16) <b>(MLRA 147, 148)</b>	
	istic (A3)			,	(00)		_			
	en Sulfide (A4)		Thin Da ( <b>MLRA</b>		` '			(MLRA 136	Floodplain Soils (F19)	
	d Layers (A5)				л Лatrix (F2					
2 cm Mu	uck (A10) (LRR N	)	X Deplete	d Matrix	(F3)		Other (Explain in Remarks)			
	d Below Dark Sur ark Surface (A12)	•	·		face (F6) Surface (F					
_	/Jucky Mineral (S1				ons (F8)	.,				
,	, MLRA 147, 148)	,		•	` ,	(F12) ( <b>L</b> l	RR N, MLF	RA 136)		
	Gleyed Matrix (S4)		Umbric	Surface	(F13) <b>(M</b>	MLRA 136, 122)				
	Redox (S5)		Piedmo	nt Flood	plain Soil	s (F19) ( <b>I</b>	MLRA 148)	)		
	Matrix (S6)						127, 147)			
*Indicators o	f hydrophytic veg	etation a	nd wetland hydro	logy mus	st be pres	sent, unle	ess disturbe	ed or problema	atic	
Restrictive L Type:	ayer (if observed)	):					اميدا	ric soil prese	n+2 V	
Depth (inche	is).				_		пуц	iric son prese	ent? <u>Y</u>	
Doptii (iiioiic					_					
Remarks:						1				

			Report Name Wetland PB-03	
Project/Site: Holloway-Knox 138 kV Transmission Lin	ne City/County: C	arroll	Sampling Date 6/6/2018	
Applicant/Owner: FirstEnergy	State: O		Sampling Point: W-mdt-6/6/2018-04	
Investigator(s) M. Thomayer, T.Qualio; Jacobs		Township, Range		
Landform (hillslope, terrace, etc.) floodplain		ave, convex, none)		
Subregion (LRR or MLRA): LRR N Lat		Long.: <u>-81.</u>		}
Soil Map Unit Name Or - Orrville silt loam, 0 to 3 percent	slopes, occasionally flo	oode NWI Cla	assification: R4SBC	
Are climatic/hydrologic conditions of the site typical for the	is time of the yea	Yes X No	(If no, explain in remarks	
Are vegetatior, soil, or hydrology	significantly di	isturbed? Are	"normal circumstances" Yes_	
Are vegetatior $\overline{X}$ , soil $\overline{X}$ , or hydrology	naturally probl	lematic1 pres	sent?	
		(If n	eeded, explain any answers in rema	rk
SUMMARY OF FINDINGS	T			
Hydrophytic vegetation present' Yes				
Hydric soil present? Yes_	Is the sample	ed area within a w	etland? Yes_	
Wetland hydrology present? Yes				
Remarks:				$\dashv$
				ļ
PEM wetland in floodplain within maintained R	OW.			
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary I	ndicators (minimum of two required)	
Primary Indicators (minimum of one is required; check al	I that apply)	Surface	Soil Cracks (B6)	
	quatic Plants (B14)		Vegetated Concave Surface (B8)	
<del></del>	en Sulfide Odor (C1)		e Patterns (B10)	
	d Rhizospheres on Living	<del></del>	im Lines (B16)	
Water Marks (B1) Roots (	•	• <del></del>	son Water Table (C2)	
<u> </u>	ce of Reduced Iron (C4)		Burrows (C8)	
<del></del>	Iron Reduction in Tilled		on Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Soils (C			or Stressed Plants (D1)	
Iron Deposits (B5) Thin Mu	ick Surface (C7)	X Geomor	phic Position (D2)	
<del></del>	Explain in Remarks)		Aquitard (D3)	
Imagery (B7)			pographic Relief (D4)	
Water-Stained Leaves (B9)			utral Test (D5)	
Aquatic Fauna (B13)			,	
Field Observations:				_
la e e e e e e e e e e e e e e e e e e e	X Depth (inches):		Wetland	
	X Depth (inches):		hydrology	
Saturation present? Yes X No	Depth (inches):	6	present? Y	
(includes capillary fringe)				
Describe recorded data (stream gauge, monitoring well,	aerial photos, previous	inspections), if ava	alla	
Remarks:				
Saturated throughout, wetland receives floodir	ng from perennial sti	ream		
-	•			

						Sampling Point: W-mdt-6	3/0/2010
			A1 1 0			50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft.	) Absolute %		Indicator	20%	50%
	,		' Cover	Species	Status	Tree Stratum 0	0
				_		Sapling/Shrub Stratum 0	0
						Herb Stratum 30	75
						Woody Vine Stratum 0	0
						Dominance Test Worksheet	
				<del>-</del>		Number of Dominant	
<u> </u>			<del></del>			Species that are OBL,	
,———				-		FACW, or FAC:	(A)
)				<del>-</del>		Total Number of Dominant	(,,,
			<del></del>	_		Species Across all Strata: 1	(B)
			0	= Total Cover		Percent of Dominant	``
				_		Species that are OBL,	
Sapling/Shrub	DI . O' . /	4= 6	、 Absolute %	Dominant	Indicator	•	% (A/B
Stratum	Plot Size (	15 ft.	Cover	Species	Status		(, , ,
				·		Prevalence Index Worksheet	
						Total % Cover of:	
						OBL species 0 x 1 = 0	)
						FACW species $120 \times 2 = 24$	
			<del></del> -			FAC species 30 x 3 = 9	
						FACU species 0 x 4 = 0	)
•						UPL species 0 x 5 = 0	)
3						Column totals 150 (A) 33	(B)
				_		Prevalence Index = B/A = 2.20	
			0	= Total Cover		Hydrophytic Vegetation Indicators	
			, Absolute %	Dominant	Indicator	X Rapid test for hydrophytic vegeta	
Herb Stratum	Plot Size (	5 ft.	) Cover	Species	Status	X Dominance test is >50%	ation
Phalaris arundi	inacea		100	Y	FACW	X Prevalence index is≤3.0*	
Impatiens cape			20	- <u>'</u>	FACW	Morphological adaptations* (prov	/ide
Verbesina alter			20	- N	FAC	supporting data in Remarks or or	
Rubus pensilva			10	- N	FAC	sheet)	i a sopai
i rabao pononte					1710	Problematic hydrophytic vegetati	on*
<u> </u>			<del></del>			(explain)	011
			<del></del>	= -		*Indicators of hydric soil and wetland hydrol	oav must h
3						present, unless disturbed or problematic	ogy maor i
						Definitions of Vegetation Strata:	
						Tree - Woody plants 3 in. (7.6 cm) or more	
				_		at breast height (DBH), regardless of height	
						Sapling/shrub - Woody plants less than 3 greater than 3.28 ft (1 m) tall.	in. DBH ar
i			150	= Total Cover		Herb - All herbaceous (non-woody) plants,	renardless
				_		size, and woody plants less than 3.28 ft tall.	U
Woody Vine	Plot Size (	30 ft.	Absolute %		Indicator	, , , , , , , , , , , , , , , , , , , ,	
Stratum	0.20 (		' Cover	Species	Status	Woody vines - All woody vines greater that	n 3.28 ft in
						height.	
1				_			
				_		Lludron budia	
			<u>.</u>	_		Hydrophytic vegetation	
·				= Total Cover			
				Total Covel		present? Y	
marks: (Include ph	oto numbers he	re or on a se	eparate sheet				
marks. (moidde ph	oto numbers ne	ie oi oii a si	sparate sneet				

								3
Drofile Desc	printion: (Describ	on to the	donth needed to	docum	ont the i	indicator	or confirm the absence	of indicators )
Depth	Matrix	be to the		Redox Features				ĺ
(Inches)	Color (moist)	%	Color (moist)				Texture	Remarks
0-12	10YR 4/2	100	Color (moist)	70	Турс	LUC	silt loam	
0-12	101K 4/2	100					SIII IOaIII	
*Type: C=C	oncentration. D=	Depletion	n. RM=Reduced	Matrix.	CS=Co	vered or	Coated Sand Grains	
, ,	PL=Pore Lining,		•		,			
	Indicators:						Indicators for	Problematic Hydric Soils:
	maioators.		Dark Su	rface (S	S7)		maioators for	robiemado riyano conc.
Histisol	(A1)		Polyvalu	•	,	e (S8)	2 cm Muck	(A10) (MLRA 147)
Histic E	pipedon (A2)		(MLRA	147, 14	8)		Coast Prair	ie Redox (A16)(MLRA 147, 148)
Black H	istic (A3)		Thin Da	k Surfa	ice (S9)		Piedmont F	loodplain Soils (F19
	en Sulfide (A4)		(MLRA *	-	•		(MLRA 136	
	d Layers (A5)		Loamy C	•	,	2		w Dark Surface (TF12)
	uck (A10) <b>(LRR</b>	•	Depleted		,	2)	X Other (Expl	ain in Remarks
	d Below Dark Su	`			,	,		
	ark Surface (A12	,	Depleted			` '		
,	Mucky Mineral (S	,	Redox D		` .	,	DD N MI DA 400\	
`	, <b>MLRA 147, 14</b> 8 Gleyed Matrix (S	,	Umbric S				LRR N, MLRA 136)	
	Redox (S5)	<b>→</b> ,			· / •		MLRA 148)	
	d Matrix (S6)						A 127, 147)	
	a mann (00,			one ma	ionai (i z		,,	
*Indicators	of hydrophytic ve	getation	and wetland hyd	drology	must be	present	, unless disturbed or pro	blem
			•	•		•	•	
	_ayer (if observe	d)						
Type:	\						Hydric soil prese	nt? <u>Y</u>
Depth (inch	es):							
Remarks:								
inciliains.								
		. (11				L. Innandado	9	
Lots of s	siit from stream	n floodi	ng making red	ox not	visible	. нуага	soil assumed.	

		Report Name Wetland PB-04
Project/Site: Holloway-Knox 138 kV Transmission Line	City/County: Carroll	Sampling Date 6/6/2018
Applicant/Owner: FirstEnergy	State: Ohio	Sampling Point: W-mdt-6/6/2018-03
Investigator(s) M. Thomayer, T.Qualio; Jacob:	Section, Township, Rai	
Landform (hillslope, terrace, etc.) hillslope	Local relief (concave, convex, r	
Subregion (LRR or MLRA): LRR N Lat.:	40.446056 Long.:	-81.049701 Datum: NAD 83
Soil Map Unit Name CpD - Coshocton silt loam, 15 to 25 p	ercent slope NV	VI Classification: N/A
Are climatic/hydrologic conditions of the site typical for this	time of the yea Yes X	\ ' ' '
Are vegetatior, soil, or hydrology	significantly disturbed?	Are "normal circumstances" Yes
Are vegetatior, soil, or hydrology	naturally problematic?	present?
		(If needed, explain any answers in remarks
SUMMARY OF FINDINGS		
Hydrophytic vegetation present' Yes		
Hydric soil present? Yes	Is the sampled area withi	n a wetland? Yes_
Wetland hydrology present? Yes		
Remarks:		
PEM wetland on hillside within linear swale in m	aintained ROW.	
HYDROLOGY		
Wetland Hydrology Indicators:	Secon	dary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all t	hat apply) Su	rface Soil Cracks (B6)
		arsely Vegetated Concave Surface (B8)
<del></del>		ainage Patterns (B10)
— — — — — — — — — — — — — — — — — — —	<del></del>	oss Trim Lines (B16)
Water Marks (B1) Roots (C:		y-Season Water Table (C2)
<u> </u>	· — ·	ayfish Burrows (C8)
<del></del>	` ′ —	turation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Soils (C6		unted or Stressed Plants (D1)
<del></del>		eomorphic Position (D2)
	• • • • • • • • • • • • • • • • • • • •	allow Aquitard (D3)
	· · · · · · · · · · · · · · · · · · ·	crotopographic Relief (D4)
Imagery (B7) Water-Stained Leaves (B9)		C-Neutral Test (D5)
<u> </u>	<u> </u>	C-Neutral Test (D3)
Aquatic Fauna (B13)		
Field Observations:		Wedlered
Surface water present? Yes X No	Depth (inches): 1	Wetland
	Depth (inches):	hydrology
Saturation present? Yes X No	Depth (inches): 0	present? Y
(includes capillary fringe)		
Describe recorded data (stream gauge, monitoring well, as	erial photos, previous inspections).	if availa
33., 3	.,	
Remarks:		
romano.		
Cotumoto di thiro cohocuti continue di anno continue	flow.	
Saturated throughout, wetland conveys surface	TIOW	

				Sampling Point:	** mat 6/6/2010
				50/20 Thresholds	
Tree Stratum Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator		20% 50%
,	Cover	Species	Status	Tree Stratum	0 0
				Sapling/Shrub Stratum	0 0
				Herb Stratum	23 58
				Woody Vine Stratum	0 0
	_			Dominance Test Workshee	et
				Number of Dominant	
				Species that are OBL,	0 (4)
				FACW, or FAC:	2 (A)
				Total Number of Dominant	
				Species Across all Strata:	2 (B)
	0 =	Total Cover		Percent of Dominant	
				Species that are OBL,	
Sapling/Shrub Plot Size ( 15 ft. )	Absolute %	Dominant	Indicator	FACW, or FAC:	100.00% (A/E
Stratum Flot Size ( 131t. )	Cover	Species	Status		
				Prevalence Index Worksho	eet
				Total % Cover of:	
				OBL species 75 x 1	= 75
				FACW species 40 x 2	
				FAC species 0 x 3	
	<del></del>			FACU species 0 x 4	
-				UPL species 0 x 5	
				Column totals 115 (A)	155 (B)
				Prevalence Index = B/A =	1.35
	0 =	Total Cover			
		10tal Cover		Hydrophytic Vegetation In	dicators:
	Absolute %	Dominant	Indicator	X Rapid test for hydrophyt	
Herb Stratum Plot Size ( 5 ft. )	Cover	Species	Status	X Dominance test is >50%	
Cumpula as musa fa atialus		•			
Symplocarpus foetidus	45	<u>Y</u>	OBL	X Prevalence index is≤3.0	
Carex vulpinoidea		<u>Y</u>	OBL	Morphological adaptatio	
Phalaris arundinacea	15	N	FACW	supporting data in Rema	arks or on a sepa
Juncus effusus	10	N	FACW	sheet)	
Carex lurida	10	N	OBL	Problematic hydrophytic	vegetation*
Onoclea sensibilis	10	N	FACW	(explain)	
Impatiens capensis	5	N	FACW	*Indicators of hydric soil and wetla	and hydrology must
				present, unless disturbed or prob	lematic
		·		Definitions of Vegetation S	
			<del></del>	Tree - Woody plants 3 in. (7.6 cm	
		-		at breast height (DBH), regardles	-
				Sapling/shrub - Woody plants le greater than 3.28 ft (1 m) tall.	ss than 3 in. DBH a
		Total Cover			
	=	- Total Covel		Herb - All herbaceous (non-wood	
Woody Vine	Absolute %	Dominant	Indicator	size, and woody plants less than	J.∠O II IḋII.
Stratum Plot Size ( 30 ft. )	Cover	Species	Status	Woody vines - All woody vines g	reater than 3.28 ft in
		•		height.	,
					·
				Hydrophytic	
				vegetation	
	0 =	Total Cover		present? Y	
					<u> </u>
marks: (Include photo numbers here or on a sep	arate sheet				

							Camp	milg i onit. W-mat-0/0/2010-03	
Profile Desc	cription: (Describ	e to the	depth needed to	o docum	nent the	indicator	or confirm the absence	of indicators.)	
Depth	Matrix			lox Feat			Texture	Remarks	
(Inches)	Color (moist)	%	Color (moist)	oist) % Type* Loc**					
0-12	10YR 4/1	80	7.5YR 3/3	20	С	M	sandy clay		
*Type: C=C	oncentration, D=	:Depletic	n, RM=Reduce	d Matrix	, CS=Co	vered or	Coated Sand Grains		
, ·	PL=Pore Lining,		-		,				
Hydric Soil	Indicators:						Indicators for	Problematic Hydric Soils:	
112.00	(4.4)		Dark Su			·- (CO)	0 14 1	(440) (84 B 4 447)	
Histisol	(A1) pipedon (A2)		( <b>MLRA</b>		w Surfac <b>ม</b> ง	e (58)		(A10) ( <b>MLRA 147)</b> rie Redox (A16) <b>(MLRA 147, 148)</b>	
	istic (A3)		\	,	ace (S9) Piedmont Floodplain Soils (F19				
Hydrog	en Sulfide (A4)		(MLRA	•	,		(MLRA 136	•	
	d Layers (A5)				Matrix (F	-2		ow Dark Surface (TF12)	
	uck (A10) <b>(LRR</b> I d Below Dark Su		X Deplete		(F3) rface (F6	e)	Other (Expl	lain in Remarks	
	ark Surface (A12	•			Surface				
	Mucky Mineral (S	,			ions (F8	'			
,	, MLRA 147, 148	,			,	,	LRR N, MLRA 136)		
	Gleyed Matrix (S	4			· , •	VILRA 13	•		
	Redox (S5)				•	` ,	MLRA 148)		
Stripped	d Matrix (S6)		Red Pa	rent Ma	terial (F2	21) <b>(MLR</b> .	A 127, 147)		
*Indicators	of hydrophytic ve	getation	and wetland hy	drology	must be	present	, unless disturbed or pro	bblem	
Restrictive I	_ayer (if observe	d)							
Type:					_		Hydric soil prese	nt? <u>Y</u>	
Depth (inch	es):				=				
Remarks:									

Project/Site: Holloway-Knox 138 kV Transmission Lin Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacob: Landform (hillslope, terrace, etc.) hillslope Subregion (LRR or MLRA): LRR N Lat. Soil Map Unit Name CpD - Coshocton silt loam, 15 to 25 Are climatic/hydrologic conditions of the site typical for thi Are vegetatior , soil , or hydrology Are vegetatior , soil , or hydrology SUMMARY OF FINDINGS	State: Ohio Section, Town Local relief (concave, of the section) 40.44302 percent slope	Sampling Point: W-mdt-6/6/2018-02
Hydrophytic vegetation present Yes Hydric soil present? Yes Wetland hydrology present? Yes	Is the sampled ar	rea within a wetland? Yes
Remarks:  PEM wetland on hillside surrounding small stre  HYDROLOGY	am in maintained ROV	V.
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required; check all Surface Water (A1) High Water Table (A2) Hydroge X Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)  A Wetland Hydroge True Aqu Hydroge Coxidized Roots (C) Roots (C) Presence Recent I	uatic Plants (B14) In Sulfide Odor (C1) If Rhizospheres on Living C3) If Reduced Iron (C4) Iron Reduction in Tilled	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  X Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  Shallow Aquitard (D3)  X Microtopographic Relief (D4)  FAC-Neutral Test (D5)
Field Observations:  Surface water present? Yes No X Water table present? Yes No X Saturation present? Yes X No (includes capillary fringe)  Describe recorded data (stream gauge, monitoring well, a	Depth (inches):  Depth (inches):  0	
Remarks: Saturated throughout, surrounds small stream		

				E0/20 Threeholds		2018-0
				50/20 Thresholds		
Tree Stratum Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator			)%
,	Cover	Species	Status	Tree Stratum		0
				Sapling/Shrub Stratum		0
				Herb Stratum	26 6	55
	_			Woody Vine Stratum	0 (	0
				Dominance Test Workshee	et	
				Number of Dominant		
				Species that are OBL,		/A\
				FACW, or FAC:	2	(A)
				Total Number of Dominant		
				Species Across all Strata:	2	(B)
	0 =	Total Cover		Percent of Dominant		
				Species that are OBL,		
Sapling/Shrub Plot Size ( 15 ft. )	Absolute %	Dominant	Indicator	FACW, or FAC:	100.00%	(A/B
Stratum Field Size (Fig. 1918.	Cover	Species	Status			
				Prevalence Index Workshe	et	
				Total % Cover of:		
			-	OBL species 85 x 1	= 85	
				FACW species 45 x 2		-
				FAC species 0 x 3	= 0	•
				FACU species 0 x 4	= 0	•
				UPL species 0 x 5	= 0	-
				Column totals 130 (A)	175	(B)
				Prevalence Index = B/A =	1.35	
						•
	0 =	Total Cover				
				Hydrophytic Vegetation Inc		
Herb Stratum Plot Size ( 5 ft. )	Absolute %	Dominant	Indicator	X Rapid test for hydrophyti		1
,	Cover	Species	Status	X Dominance test is >50%		
Carex vulpinoidea	60	Y	OBL	X Prevalence index is≤3.0		
Impatiens capensis	25	Y	FACW	Morphological adaptation		
Carex lurida	20	N	OBL	supporting data in Rema	arks or on a	separ
Onoclea sensibilis	10	N	FACW	sheet)		
Juncus effusus	10	N	FACW	Problematic hydrophytic	vegetation*	
Symplocarpus foetidus	5	N	OBL	(explain)		
				*Indicators of hydric soil and wetla	and hydrology	must b
				present, unless disturbed or probl	ematic	
				Definitions of Vegetation S	Strata:	
				Tree - Woody plants 3 in. (7.6 cm		ameter
				at breast height (DBH), regardless		
				Sapling/shrub - Woody plants le	ss than 3 in. D	BH an
				greater than 3.28 ft (1 m) tall.		
	130=	Total Cover		Herb - All herbaceous (non-wood	,,,	rdless
Woody Vine	Absolute %	Dominant	Indicator	size, and woody plants less than 3	3.28 ft tall.	
Stratum Plot Size ( 30 ft. )	Cover	Species	Status	Monday viscos	rooto-the co	10 tr .
Gualani	Cover	Opedies	Otalus	<b>Woody vines</b> - All woody vines g height.	reater than 3.2	o it in
	_			noight.		
				Hydrophytic		
				vegetation		
	0 =	Total Cover		present? Y		
					· 	
narks: (Include photo numbers here or on a sep	arate sheet					

							Oanip	Jillig I Jilli. W-mat-0/0/2010-02
Profile Desc	cription: (Descril	oe to the	depth needed to	o docum	nent the	indicator	or confirm the absence	of indicators.)
Depth	Matrix			lox Feat			Texture	Remarks
(Inches)	Color (moist)	%	Color (moist)	olor (moist) % Type* Loc**			Texture	Remarks
0-12	10YR 4/1	100					sandy clay loam	
				<u></u>				
				<b></b>	ļ			
					<u> </u>			
				<b></b>	<b>-</b>			
				<del></del>	1			
					-			<del> </del>
					1			-
					1			+
*Type: C=C	oncentration. D=	=Depletio	on. RM=Reduced	Matrix	. CS=Cc	overed or	Coated Sand Grains	
, ,	PL=Pore Lining,	•	•		, 00 00			
Hydric Soil Indicators: Indicators for Problematic Hydric Soils:								Problematic Hydric Soils:
,			Dark Su	,	,			
Histisol	` '		•		w Surfac	e (S8)		(A10) (MLRA 147)
	pipedon (A2) istic (A3)		(MLRA	,	ace (S9)			rie Redox (A16) <b>(MLRA 147, 148)</b> Floodplain Soils (F19
	en Sulfide (A4)		(MLRA		` '		(MLRA 13	• ` `
	d Layers (A5)			,	Matrix (F	-2		ow Dark Surface (TF12
	uck (A10) (LRR		Deplete					lain in Remarks
	d Below Dark Si	•			rface (F	,		
	ark Surface (A1:	,			Surface	, ,		
,	Mucky Mineral (§ , <b>MLRA 147, 14</b>	,			sions (F8		LRR N, MLRA 136)	
`	Gleyed Matrix (S	,				MLRA 13		
	Redox (S5)	-,			· , •		MLRA 148)	
Stripped	d Matrix (S6)		Red Par	rent Ma	terial (F2	21) <b>(MLR</b>	A 127, 147)	
*1	e formalis and a second as a second			-ll			laaa dhataadaadaaaa	-1.1
*Indicators (	of nydropnytic ve	getation	and wetland hy	arology	must be	present	, unless disturbed or pro	oblem
Restrictive I	_ayer (if observe	d)						
Type:					_		Hydric soil prese	nt? <u>Y</u>
Depth (inch	es):				-			
Remarks:						J		
Soil ass	umed hydric c	lue to s	trong vegetati	ve and	l hydrol	logic ind	dicators.	
	-					_		

Project/Site: Holloway-Knox 138 kV Transmission Lin Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacob: Landform (hillslope, terrace, etc., hillslope Subregion (LRR or MLRA): LRR N Lat. Soil Map Unit Name CpD - Coshocton silt loam, 15 to 25 Are climatic/hydrologic conditions of the site typical for thi Are vegetatior , soil , or hydrology Are vegetatior , soil , or hydrology SUMMARY OF FINDINGS	State: Ohio Section, Towns Local relief (concave, c 40.442307 percent slope	Long.:         -81.050011         Datum:         NAD 83           NWI Classification:         N/A           X         No         (If no, explain in remarks ed?           Are "normal circumstances"         Yes
Hydrophytic vegetation present' Hydric soil present?  Wetland hydrology present?  Yes Yes Yes	Is the sampled are	ea within a wetland? Yes
PEM wetland on hillside likely from a seep in m  HYDROLOGY	naintained ROW.	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all         Surface Water (A1)       True Aq         X       High Water Table (A2)       Hydroge         X       Saturation (A3)       Oxidized         Water Marks (B1)       Roots (C         Sediment Deposits (B2)       Presenc         Drift Deposits (B3)       Recent I         Algal Mat or Crust (B4)       Soils (Ct         Iron Deposits (B5)       X	uatic Plants (B14) en Sulfide Odor (C1) d Rhizospheres on Living C3) e of Reduced Iron (C4) Iron Reduction in Tilled	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) X Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:  Surface water present? Yes No X Water table present? Yes X No Saturation present? Yes X No (includes capillary fringe)  Describe recorded data (stream gauge, monitoring well, a	Depth (inches): 5 Depth (inches): 0	Wetland hydrology present?  Y  actions), if availa
Remarks: Saturated throughout, water in pit		

ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species  Total Cover  Dominant Species  Total Cover  Dominant Species	Indicator Status	20%   50%
5 ft. )	Cover  O =  Absolute % Cover  O =  Absolute % Cover	Species  Total Cover  Dominant Species  Total Cover  Total Cover	Status  Indicator Status	Tree Stratum         0         0           Sapling/Shrub Stratum         0         0           Herb Stratum         22         55           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,         2         (A)           FACW, or FAC:         2         (B)           Percent of Dominant         Species Across all Strata:         2         (B)           Percent of Dominant         Species that are OBL,         100.00%         (A/B           Prevalence Index Worksheet         Total % Cover of:         OBL species         20         x 1 =         20           FACW species         90         x 2 =         180         FAC species         0         x 3 =         0           FACU species         0         x 4 =         0         0         UPL species         0         x 5 =         0           Column totals         110         (A)         200         (B)           Prevalence Index = B/A =         1.82         1.82
5 ft. )	Absolute % Cover  O =  Absolute % Cover	Total Cover  Total Cover  Dominant Species  Total Cover	Indicator Status	Sapling/Shrub Stratum         0         0           Herb Stratum         22         55           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,         2         (A)           FACW, or FAC:         2         (B)           Percent of Dominant           Species Across all Strata:         2         (B)           Percent of Dominant         Species Hat are OBL,         100.00%         (A/B)           Prevalence Index Worksheet           Total % Cover of:         OBL species         20         x 1 =         20           FACW species         90         x 2 =         180           FAC species         0         x 3 =         0           FACU species         0         x 4 =         0           UPL species         0         x 5 =         0           Column totals         110         (A)         200         (B)           Prevalence Index = B/A =         1.82
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Herb Stratum
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 20 x 1 = 20 FACW species 90 x 2 = 180 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 110 (A) 200 (B) Prevalence Index = B/A = 1.82
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 20 x 1 = 20 FACW species 90 x 2 = 180 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 110 (A) 200 (B) Prevalence Index = B/A = 1.82
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  100.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species  OBL species  0
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Number of Dominant         Species that are OBL,           FACW, or FAC:         2 (A)           Total Number of Dominant         2 (B)           Percent of Dominant         2 (B)           Species Across all Strata:         2 (B)           Percent of Dominant         3 (B)           Species that are OBL,         4 (A)           FACW, or FAC:         100.00%           Prevalence Index Worksheet         100.00%           Total % Cover of:         0 X 1 = 20           OBL species         20 X 2 = 180           FACW species         0 X 3 = 0           FACU species         0 X 4 = 0           UPL species         0 X 5 = 0           Column totals         110 (A)         200 (B)           Prevalence Index = B/A = 1.82         1.82
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Species that are OBL, FACW, or FAC: 2 (A)  Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 20 x 1 = 20 FACW species 90 x 2 = 180 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 110 (A) 200 (B)  Prevalence Index = B/A = 1.82
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	FACW, or FAC:       2       (A)         Total Number of Dominant         Species Across all Strata:       2       (B)         Percent of Dominant         Species that are OBL,         FACW, or FAC:       100.00%       (A/B)         Prevalence Index Worksheet         Total % Cover of:         OBL species       20       x 1 =       20         FACW species       90       x 2 =       180         FAC species       0       x 3 =       0         FACU species       0       x 4 =       0         UPL species       0       x 5 =       0         Column totals       110       (A)       200       (B)         Prevalence Index = B/A =       1.82
5 ft. )	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 20 x 1 = 20 FACW species 90 x 2 = 180 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 110 (A) 200 Prevalence Index = B/A = 1.82
	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Species Across all Strata:         2         (B)           Percent of Dominant         Species that are OBL,         100.00%         (A/B           Prevalence Index Worksheet           Total % Cover of:         OBL species         20         x 1 =         20           FACW species         90         x 2 =         180           FAC species         0         x 3 =         0           FACU species         0         x 4 =         0           UPL species         0         x 5 =         0           Column totals         110         (A)         200         (B)           Prevalence Index = B/A =         1.82         1.82
	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Percent of Dominant Species that are OBL, FACW, or FAC:
	Absolute % Cover  0  Absolute % Cover	Dominant Species	Status	Species that are OBL,           FACW, or FAC:         100.00%         (A/B           Prevalence Index Worksheet           Total % Cover of:         0BL species         20 x 1 = 20           OBL species         90 x 2 = 180           FACW species         0 x 3 = 0           FACU species         0 x 4 = 0           UPL species         0 x 5 = 0           Column totals         110 (A) 200           Prevalence Index = B/A = 1.82
	Cover  O =  Absolute % Cover	Species  Total Cover  Dominant	Status	FACW, or FAC:         100.00%         (A/B)           Prevalence Index Worksheet           Total % Cover of:         0BL species         20         x 1 =         20           FACW species         90         x 2 =         180           FAC species         0         x 3 =         0           FACU species         0         x 4 =         0           UPL species         0         x 5 =         0           Column totals         110         (A)         200         (B)           Prevalence Index = B/A =         1.82         1.82
	Cover  O =  Absolute % Cover	Species  Total Cover  Dominant	Status	Prevalence Index Worksheet           Total % Cover of:         OBL species         20 x 1 = 20           FACW species         90 x 2 = 180           FAC species         0 x 3 = 0           FACU species         0 x 4 = 0           UPL species         0 x 5 = 0           Column totals         110 (A) 200           Prevalence Index = B/A = 1.82         1.82
	0 = Absolute % Cover	Total Cover		Total % Cover of:       OBL species       20       x 1 =       20         FACW species       90       x 2 =       180         FAC species       0       x 3 =       0         FACU species       0       x 4 =       0         UPL species       0       x 5 =       0         Column totals       110       (A)       200       (B)         Prevalence Index = B/A =       1.82
	Absolute % Cover	Dominant		Total % Cover of:       OBL species       20       x 1 =       20         FACW species       90       x 2 =       180         FAC species       0       x 3 =       0         FACU species       0       x 4 =       0         UPL species       0       x 5 =       0         Column totals       110       (A)       200       (B)         Prevalence Index = B/A =       1.82
	Absolute % Cover	Dominant		OBL species         20         x 1 =         20           FACW species         90         x 2 =         180           FAC species         0         x 3 =         0           FACU species         0         x 4 =         0           UPL species         0         x 5 =         0           Column totals         110         (A)         200         (B)           Prevalence Index = B/A =         1.82         (B)
	Absolute % Cover	Dominant		FACW species       90       x 2 =       180         FAC species       0       x 3 =       0         FACU species       0       x 4 =       0         UPL species       0       x 5 =       0         Column totals       110       (A)       200       (B)         Prevalence Index = B/A =       1.82
	Absolute % Cover	Dominant		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	Absolute % Cover	Dominant		FACU species $0 \times 4 = 0$ UPL species $0 \times 5 = 0$ Column totals $110 \times 6 = 0$ Prevalence Index = B/A = $1.82 \times 6 = 0$ (B)
	Absolute % Cover	Dominant		UPL species $0 \times 5 = 0$ Column totals $110 \times 5 = 0$ Prevalence Index = B/A = $1.82 \times 5 = 0$ (B)
	Absolute % Cover	Dominant		Column totals 110 (A) 200 (B) Prevalence Index = B/A = 1.82
	Absolute % Cover	Dominant		Prevalence Index = B/A = 1.82
	Absolute % Cover	Dominant		
ft. )	Absolute % Cover	Dominant		Hydrophytic Vegetation Indicators:
ft. )	Absolute % Cover	Dominant		Hydrophytic Vegetation Indicators:
ft. )	Cover			nyurophytic vegetation indicators:
ft. )	Cover		Indicator	
			Indicator Status	X Rapid test for hydrophytic vegetation X Dominance test is >50%
		•		
	50	<u>Y</u> Y	FACW FACW	X Prevalence index is≤3.0* Morphological adaptations* (provide
	<u>40</u> 20	<u>Y</u>	OBL	supporting data in Remarks or on a separ
		IN	UBL	sheet)
<del></del>				Problematic hydrophytic vegetation*
				(explain)
				*Indicators of hydric soil and wetland hydrology must b
				present, unless disturbed or problematic
				Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH an
	-			greater than 3.28 ft (1 m) tall.
	110 =	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
	Absolute %	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
) ft. )				Woody vines - All woody vines greater than 2.00 ft in
	20161	Оробіва	Olalas	<b>Woody vines</b> - All woody vines greater than 3.28 ft in height.
				gm.
	-			
				Hydrophytic
				vegetation
		Total Cavar		_
		- TOTAL COVE		present? Y
		ft. ) Absolute % Cover	ft. ) Absolute % Dominant Species  0 = Total Cover	ft. ) Absolute % Dominant Species Status  0 = Total Cover

Profile Desc	rintion: (Dogorih	s to the	dooth pooded to	a daaun	ant the	indiaatar	or confirm the absonce	of indicators \
Depth	Matrix	e to trie	_	lox Fea		indicator	or confirm the absence	,
(Inches)	Color (moist)	%	Color (moist)	ox rea %	Type*	Loc**	Texture	Remarks
0-8	10YR 4/2	90	10YR 3/6	10	С	M	sandy clay loam	
0-0	10111 4/2	30	10110 3/0	10		IVI	Saridy Clay Idam	
	E-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains							
, ,	oncentration, D= PL=Pore Lining,	•	-	d Matrix	, CS=Co	vered or	Coated Sand Grains	
	Indicators:		**				Indicators for F	Problematic Hydric Soils:
Histisol			Dark Su		S7) w Surfac	e (S8)		A10) (MLRA 147)
	pipedon (A2)		(MLRA			,o (00)		e Redox (A16)(MLRA 147, 148)
Black Histic (A3) Thin Dark Surface (S9							Piedmont Fl	oodplain Soils (F19
, ,	en Sulfide (A4)		(MLRA				(MLRA 136	
	d Layers (A5) uck (A10) <b>(LRR I</b>	M.	X Deplete		Matrix (F	-2		w Dark Surface (TF12) ain in Remarks
	d Below Dark Su	,			rface (F6	6)	Other (Expire	all III Remarks
	ark Surface (A12	,			Surface	,		
Sandy I	Mucky Mineral (S	S1)	Redox I	Depress	sions (F8	3)		
LRR N	, MLRA 147, 148	3)	Iron-Ma	nganes	e Masse	s (F12)	LRR N, MLRA 136)	
	Gleyed Matrix (S	4			· , •	ILRA 13		
	Redox (S5)				•	` ,	MLRA 148)	
Strippe	d Matrix (S6)		Red Pa	rent Ma	terial (F2	21) <b>(MLR</b>	A 127, 147)	
*Indicators	of hydrophytic ve	getation	and wetland hy	drology	must be	present	, unless disturbed or prol	blem
	_ayer (if observe	d)						10 V
Type: ro Depth (inch	ock es): 8				-		Hydric soil presen	<u> </u>
Deptii (iiicii	es). <u>0</u>				-			
Remarks:								

				wetiand PB-07		
Project/Site: Holloway-Knox 138 kV Tran		Carroll	Sampling Date 6			
Applicant/Owner: <u>FirstEnergy</u>	State:			W-mdt-6/6/2018-06		
Investigator(s) M. Thomayer, T.Qualio; Jac		n, Township, Range				
Landform (hillslope, terrace, etc.) terrace		ncave, convex, none		Slope (%):		
Subregion (LRR or MLRA): LRR N	Lat.: 40.426431	Long.: -8		Datum: NAD 83		
Soil Map Unit Name RgE - Rigley loam, 25 to	40 percent slope	NWIC	lassification: R4S	ВС		
Are climatic/hydrologic conditions of the site to	ypical for this time of the yea	Yes X No	(If no, ex	plain in remarks		
Are vegetatior, soil, or	hydrologysignificantly	y disturbed? Are	e "normal circumst	tances" Yes		
Are vegetatior , soil , or	hydrology naturally pr		esent?	<u></u>		
		(If	needed, explain ar	ny answers in remark		
SUMMARY OF FINDINGS						
Hydrophytic vegetation present' Yes						
Hydric soil present? Yes	Is the sam	pled area within a	wetland? Ye	es		
Wetland hydrology present? Yes				<del></del>		
	•					
Remarks:						
PEM wetland in valley surrounding in	atormittant atroom in mainte	ained POW/pactu	ıro			
F Livi welland in valley surrounding in	neminem stream in mainte	airieu NOW/pasid	ıı <del>c</del> .			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary	Indicators (minim	um of two required)		
Primary Indicators (minimum of one is require	ed; check all that apply)	Surface	e Soil Cracks (B6)			
X Surface Water (A1)	True Aquatic Plants (B14)	Sparse	ly Vegetated Conca	ave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	X Draina	X Drainage Patterns (B10)			
X Saturation (A3)	Oxidized Rhizospheres on Liv	ving Moss T	Moss Trim Lines (B16)			
Water Marks (B1)	Roots (C3)		Dry-Season Water Table (C2)			
Sediment Deposits (B2)	Presence of Reduced Iron (C		Crayfish Burrows (C8)			
Drift Deposits (B3)	Recent Iron Reduction in Tille	ed Saturat	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Soils (C6)	Stunted	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	Thin Muck Surface (C7)	X Geomo	X Geomorphic Position (D2)			
Inundation Visible on Aerial	Other (Explain in Remarks)	Shallov	Shallow Aquitard (D3)			
Imagery (B7)			ppographic Relief (D	04)		
Water-Stained Leaves (B9)			eutral Test (D5)	,		
Aquatic Fauna (B13)						
Field Observations:						
Surface water present? Yes X	No Depth (inches):	: 1	Wetland			
Water table present? Yes	No X Depth (inches):		hydrology			
Saturation present? Yes X	No Depth (inches):		present?	Υ		
(includes capillary fringe)			_			
Describe recorded data (stream gauge, moni	toring well, aerial photos, previo	ous inspections), if av	/aıla			
Remarks:						
Saturated throughout with pockets o	f inundation; periodically re	ceives flooding				
	The state of the s					

						Sampling Point:	VV-11101-0/0/2010-
			A1 1 . 0/			50/20 Thresholds	
Stratum Plo	t Size ( 30 ft.	. )	Absolute %	Dominant	Indicator		20% 50%
	`	,	Cover	Species	Status	Tree Stratum	0 0
						Sapling/Shrub Stratum	0 0
						Herb Stratum	20 50
					-	Woody Vine Stratum	0 0
						Dominance Test Workshe	et
						Number of Dominant	
						Species that are OBL,	. (4)
						FACW, or FAC:	2 (A)
						Total Number of Dominant	
						Species Across all Strata:	2 (B)
				Total Cover		Percent of Dominant	
						Species that are OBL,	
ng/Shrub Plo	t Size ( 15 ft.	)	Absolute %	Dominant	Indicator	FACW, or FAC:	100.00% (A/B)
atum	10120 ( 1011.	,	Cover	Species	Status		
						Prevalence Index Workshop	eet
						Total % Cover of:	
						OBL species 65 x 1	= 65
						FACW species 35 x 2	= 70
						FAC species 0 x 3	= 0
						FACU species 0 x 4	= 0
						UPL species 0 x 5	= 0
						Column totals 100 (A)	135 (B)
			<u> </u>			Prevalence Index = $B/A$ =	1.35
			0 =	Total Cover			
						Hydrophytic Vegetation In	
Stratum Plo	t Size ( 5 ft.	)	Absolute %	Dominant	Indicator	X Rapid test for hydrophyt	
		,	Cover	Species	Status	X Dominance test is >50%	
arex lurida			30	Y	OBL	X Prevalence index is≤3.0	
arex vulpinoidea			20	Y	OBL	Morphological adaptation	
mplocarpus foetidu/	S		15	N	OBL	supporting data in Rema	arks or on a separ
npatiens capensis			15	N	FACW	sheet)	
ıncus effusus			10	N	FACW	Problematic hydrophytic	vegetation*
noclea sensibilis			10	N	FACW	(explain)	
						*Indicators of hydric soil and wetla	and hydrology must b
						present, unless disturbed or prob	
						Definitions of Vegetation S	Strata:
						Tree - Woody plants 3 in. (7.6 cm	
						at breast height (DBH), regardles	
						Sapling/shrub - Woody plants le	ss than 3 in. DBH an
						greater than 3.28 ft (1 m) tall.	
			100 =	Total Cover		Herb - All herbaceous (non-wood	,,,
dy Vine			Absolute %	Dominant	Indicator	size, and woody plants less than	3.28 ft tall.
atum Plo	t Size ( 30 ft.	. )	Cover	Species	Status	Woody vines - All woody vines of	reater than 2 29 ft in
						height.	100101 than 3.20 It III
						Hydrophytic	
						vegetation	
			0 =	Total Cover		present? Y	
			-			-	-
s: (Include photo nui	mbers here or on	a separa	ate sheet				
							_

								g. •	
Drafile Door	i-tion. (Dogorih	- to tho	-landb noodod to	- 40000	nt tha i	ات خانموند تا		of indicators \	
Depth	Matrix	e to the		o docun lox Fea		indicator	or confirm the absence	of indicators.)	
(Inches)	Color (moist)	%	Color (moist)	юх геа %	Type*	Loc**	Texture	Remarks	
0-12	10YR 4/1	80	7.5YR 3/3	20	С	M	sandy clay	mostly sand	
0-12	10111 4/1	00	7.511( 5/5	20		IVI	Salidy Clay	mostly sand	
		D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains							
· ·	oncentration, D= PL=Pore Lining,	•	•	d Matrix	, CS=Co	vered or	Coated Sand Grains		
	<u> </u>	ivi–iviati	IX.				Indicators for	Droblomatic Hydric Scile	
Hydric Soil Indicators:  Histisol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11 Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)  Thick Soil Indicators of hydrophytic vegetation and wetland hydrology must be						(F7) (F7) ) s (F12) ↓ MLRA 13 iils (F19) (MLRA	2 cm Muck Coast Prair Piedmont F (MLRA 136) Very Shallo Other (Expl	ow Dark Surface (TF12) lain in Remarks	
Restrictive I Type: Depth (inch	_ayer (if observe	d)			<u>-</u> -		Hydric soil prese	nt? Y	
Remarks:									

Project/Site: Holloway-Knox 138 kV Transmission Line Applicant/Owner: FirstEnergy	City/County: Carroll State: Ohio	Report Name			
Investigator(s) M. Thomayer, T.Qualio; Jacobs	Section, Township, Rai				
Landform (hillslope, terrace, etc.) terrace	Local relief (concave, convex, r				
Subregion (LRR or MLRA): LRR N Lat.: Soil Map Unit Name WnF - Westmoreland-Dekalb comple		81.050228			
Are climatic/hydrologic conditions of the site typical for this	s time of the yea Yes X	No (If no, explain in remarks			
Are vegetatior, soil, or hydrology, soil, or hydrology, or hydrology	significantly disturbed? naturally problematic?	Are "normal circumstances" Yes present? (If needed, explain any answers in remarks)			
SUMMARY OF FINDINGS					
Hydrophytic vegetation present' Hydric soil present?  Wetland hydrology present?  Yes Yes	Is the sampled area within	n a wetland? Yes			
Remarks:					
PEM wetland in valley surrounding ephemeral s	stream within maintained ROV	V/pasture.			
HYDROLOGY					
Wetland Hydrology Indicators:		dary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all		rface Soil Cracks (B6)			
<del></del> ` '		arsely Vegetated Concave Surface (B8)			
	<del></del>	ainage Patterns (B10)			
X Saturation (A3) Oxidized Water Marks (B1) Roots (C	200p	oss Trim Lines (B16) y-Season Water Table (C2)			
<del></del>		ayfish Burrows (C8)			
<del></del>	` '	turation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Soils (C6					
Iron Deposits (B5) X Thin Muc	uck Surface (C7) X Geomorphic Position (D2)				
Inundation Visible on Aerial Other (E:	Explain in Remarks) Shallow Aquitard (D3)				
Imagery (B7)	X Mid	crotopographic Relief (D4)			
Water-Stained Leaves (B9)	<u>X</u> FA	C-Neutral Test (D5)			
Aquatic Fauna (B13)					
Field Observations:					
Surface water present? Yes X No	Depth (inches): 1	Wetland			
Water table present? Yes No X Saturation present? Yes X No	Depth (inches): 0	hydrology			
Saturation present? Yes X No (includes capillary fringe)	Deptif (iniciles)	present? Y			
Describe recorded data (stream gauge, monitoring well, a	erial photos, previous inspections),	ıf avaıla			
Remarks:					
Saturated throughout, wetland receives flooding	g from ephemeral stream/seep	os			

				Sampling Point: W-mdt-6/6	2010 0
	A l l 4 - 0/	Daminant	la dia atau		
Tree Stratum Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator		50%
,	Cover	Species	Status	Tree Stratum 0	0
				Sapling/Shrub Stratum 0	0
					65
				Woody Vine Stratum 0	0
				Dominance Test Worksheet	
				Number of Dominant	
				Species that are OBL,	
				FACW, or FAC: 2	_ (A)
				Total Number of Dominant	
				Species Across all Strata: 3	_(B)
	0 =	Total Cover		Percent of Dominant	
				Species that are OBL,	
Sapling/Shrub	Absolute %	Dominant	Indicator	FACW, or FAC: 66.67%	(A/B)
Stratum Plot Size ( 15 ft. )	Cover	Species	Status	17.677, 61.17.6.	_(,,,,,,,
Citatam	00101	Оросіос	Otatao	Decorate and the decorate and	
				Prevalence Index Worksheet	
				Total % Cover of:	
				OBL species <u>30</u> x 1 = <u>30</u>	_
				FACW species 40 x 2 = 80	_
				FAC species0 x 3 =0	_
				FACU species <u>0</u> x 4 = <u>0</u>	_
				UPL species0 x 5 =0	_
				Column totals 70 (A) 110	_(B)
				Prevalence Index = B/A = 1.57	_
	0 =	Total Cover			
				Hydrophytic Vegetation Indicators:	
Herb Stratum Plot Size ( 5 ft. )	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation	n
riero otratum i not olze ( ont. )	Cover	Species	Status	X Dominance test is >50%	
Panicum sp.	60	Υ		X Prevalence index is≤3.0*	
Carex vulpinoidea	30	<u> Y</u>	OBL	Morphological adaptations* (provide	Э
Impatiens capensis	30	Y	FACW	supporting data in Remarks or on a	separa
Eupatorium perfoliatum	10	N	FACW	sheet)	•
				Problematic hydrophytic vegetation	*
	<del></del>	-	-	(explain)	
-				*Indicators of hydric soil and wetland hydrology	, must h
				present, unless disturbed or problematic	must be
	-			Definitions of Vegetation Strata:	
				Tree - Woody plants 3 in. (7.6 cm) or more in o	liameter
				at breast height (DBH), regardless of height.	
				Sanling/about Wandy plants loss than 2 in	DBU one
				Sapling/shrub - Woody plants less than 3 in. greater than 3.28 ft (1 m) tall.	DDH and
	130 =	Total Cover		Herb - All herbaceous (non-woody) plants, reg	ardless
1.10		_		size, and woody plants less than 3.28 ft tall.	
Woody Vine Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator		
Stratum	Cover	Species	Status	Woody vines - All woody vines greater than 3	.28 ft in
				height.	
				Hydrophytic	
			<del></del>	vegetation	
	0 =	Total Cover		present? Y	
marks: (Include photo numbers here or on a sepa	rate sheet			•	
•					
,					
, , ,					
· · · · · · · · · · · · · · · · · · ·					

								g			
D -61- D	i dana (Danasil	1 - 11 -					e Come the calculation	C P (ama)			
	· · · · · · · · · · · · · · · · · · ·	e to the		indicator	or confirm the absence	of indicators.)					
Depth	Matrix	0/		lox Fea		I 00**	Texture	Remarks			
(Inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type* C	Loc**	aller alore				
0-12	10YR 5/1	90	10YR 5/6	10	C	M	silty clay				
*Type: C=C	oncentration, D=	Depletion	n, RM=Reduced	d Matrix	, CS=Co	vered or	Coated Sand Grains				
**Location:	PL=Pore Lining,	M=Matr	X								
Hydric Soil	Indicators:						Indicators for I	Problematic Hydric Soils:			
111 41 1	(4.4)		Dark Su			- (CO)	o M 1	(A 4 0) (BU D A 4 4 7)			
Histisol	\ /		,		w Surfac	e (58)		(A10) (MLRA 147)			
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4)  (MLRA 147, 148)  (MLRA 147, 148)								ie Redox (A16) <b>(MLRA 147, 148)</b> loodplain Soils (F19			
							(MLRA 136				
, ,	d Lavers (A5)				Matrix (F	2		w Dark Surface (TF12			
	uck (A10) <b>(LRR I</b>	d١	X Deplete			2		ain in Remarks			
	d Below Dark Su	,			rface (F6	3)	Other (Expr	an in Remarks			
	ark Surface (A12	,			Surface	,					
	Mucky Mineral (S	,			sions (F8						
,	, MLRA 147, 148	,					LRR N, MLRA 136)				
	Gleyed Matrix (S	,			e (F13) <b>(N</b>						
	Redox (S5)	,			· , •		MLRA 148)				
Stripped	d Matrix (S6)		Red Pa	rent Ma	terial (F2	21) <b>(MLR</b> .	A 127, 147)				
*Indicators	of hydrophytic ve	getation	and wetland hy	drology	must be	present	, unless disturbed or pro	blem			
Restrictive I	_ayer (if observe	d)									
Type:		•					Hydric soil preser	nt? Y			
Depth (inch	es):				- -						
Remarks:											
Remarks.											

Project/Site: Holloway-Knox 138 kV Transmission Lir Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacob: Landform (hillslope, terrace, etc.) terrace Subregion (LRR or MLRA): LRR N Lat Soil Map Unit Name BkE - BerkSchannery silt loam, 25 te Are climatic/hydrologic conditions of the site typical for th Are vegetatior , soil , or hydrology Are vegetatior , soil , or hydrology SUMMARY OF FINDINGS	State: Ohio Section, Towr Local relief (concave, 40.408456 o 35 percent slope	Sampling Point nship, Range S20 T12N R5W convex, none; concave Long.: -81.051824 NWI Classification: N/A S X No (If no, each concave) Are "normal circum atic; present?	::W-mdt-6/6/2018-08  V Slope (%): Datum: NAD 83  A explain in remarks
Hydrophytic vegetation present' Hydric soil present? Wetland hydrology present? Yes Yes	Is the sampled a	rea within a wetland? Y	′es_
PEM wetland in valley adjacent to intermittent	stream in maintained F	ROW	
High Water Table (A2)  X Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Hydroge  Oxidizer  Roots (0  Presence  Sediment Deposits (B2)  Presence  Soils (C	puatic Plants (B14) en Sulfide Odor (C1) d Rhizospheres on Living C3) be of Reduced Iron (C4) Iron Reduction in Tilled	Secondary Indicators (minir Surface Soil Cracks (B6) Sparsely Vegetated Cone X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table Crayfish Burrows (C8) Saturation Visible on Aer Stunted or Stressed Plan X Geomorphic Position (D2 Shallow Aquitard (D3) X Microtopographic Relief (X FAC-Neutral Test (D5)	cave Surface (B8)  e (C2)  rial Imagery (C9)  nts (D1)
Field Observations:  Surface water present? Yes X No Water table present? Yes No Saturation present? Yes X No Cincludes capillary fringe)  Describe recorded data (stream gauge, monitoring well, and the stream gauge)	X Depth (inches): Depth (inches):	Wetland hydrology present?	Y
Remarks: Saturated throughout with pockets of inundation	on		

Tree Stratum 0 0 0 Sapling/Shrub Stratum 0 0 0 Herb Stratum 31 78 Woody Vine Stratum 0 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Pervalence Index Worksheet  Total % Cover of: OBL species 80 x 1 = 80 FACW species 75 x 2 = 150 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 155 (A) 230 (B) Prevalence Index = B/A = 1.48  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a sepa sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must	
Tree Stratum	
Sapling/Shrub Stratum 0 0 0 Herb Stratum 31 78 Woody Vine Stratum 0 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet Total % Cover of: OBL species 80 x 1 = 80 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 155 (A) 230 (B) Prevalence Index = B/A = 1.48  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a sepasheet) Problematic hydrophytic vegetation* (explain)	
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Woody Vine Stratum       0       0         Dominance Test Worksheet         Number of Dominant       Species that are OBL,         FACW, or FAC:       2       (A)         Total Number of Dominant       Species Across all Strata:       2       (B)         Percent of Dominant       Species Across all Strata:       2       (B)         Percent of Dominant       Species Across all Strata:       2       (B)         Percent of Dominant       Species Across all Strata:       2       (B)         Percent of Dominant       Species Across all Strata:       2       (B)         Prevalence Index Worksheet       Total %       100.00% (A/B)         Prevalence Index Worksheet         Total %       80       x 1       80         FACW, or FAC:       100.00% (A/B)         Prevalence Index Worksheet         Total %       2       150         FACW, or FAC:       100.00% (A/B)         Prevalence Index Worksheet         Total %       2       150         FACW, page 4       0         UPL species 75 x 2 = 150         FACW species 75 x 2 = 0 <td c<="" td=""></td>	
Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)  Prevalence Index Worksheet  Total % Cover of: OBL species 80 x 1 = 80 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 155 (A) 230 (B) Prevalence Index = B/A = 1.48  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a sepa sheet) Problematic hydrophytic vegetation* (explain)	
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Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B  Prevalence Index Worksheet  Total % Cover of: OBL species 80 x 1 = 80 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 155 (A) 230 (B) Prevalence Index = B/A = 1.48  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a sepa sheet) Problematic hydrophytic vegetation* (explain)	
Percent of Dominant Species that are OBL, FACW, or FAC:    100.00% (A/E)	
Species that are OBL, FACW, or FAC:	
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Prevalence Index Worksheet  Total % Cover of:  OBL species 80 x 1 = 80  FACW species 75 x 2 = 150  FAC species 0 x 4 = 0  UPL species 0 x 5 = 0  Column totals 155 (A) 230 (B)  Prevalence Index = B/A = 1.48  Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation X Dominance test is >50%  X Prevalence index is≤3.0*  Morphological adaptations* (provide supporting data in Remarks or on a sepa sheet)  Problematic hydrophytic vegetation* (explain)	
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sheet) Problematic hydrophytic vegetation*(explain)	
Problematic hydrophytic vegetation* (explain)	
(explain)	
<del></del> ` . ,	
*Indicators of hydric soil and wetland hydrology must	
present, unless disturbed or problematic	
Definitions of Vegetation Strata:	
Tree - Woody plants 3 in. (7.6 cm) or more in diameter	
at breast height (DBH), regardless of height.	
Sapling/shrub - Woody plants less than 3 in. DBH at greater than 3.28 ft (1 m) tall.	
Herb - All herbaceous (non-woody) plants, regardless	
size, and woody plants less than 3.28 ft tall.	
Woody vines - All woody vines greater than 3.28 ft in	
height.	
Hydrophytic	
Hydrophytic	
vegetation	
present? Y	
_	

								g		
	(5					,				
	· · · · · · · · · · · · · · · · · · ·	e to the		indicator	or confirm the absence	of indicators.)				
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	lox Fea	tures Type*	Loc**	Texture	Remarks		
0-14	10YR 5/1	90	10YR 5/8	10	С	M	silty clay			
0-14	10113/1	90	1011370	10		IVI	Silly Clay			
, ·	•		•	d Matrix	, CS=Co	vered or	Coated Sand Grains			
**Location:	PL=Pore Lining,	M=Matr	X							
Hydric Soil	Indicators:						Indicators for I	Problematic Hydric Soils:		
10-01	(1.4)		Dark Su		S7) w Surfac	· (C0)	O area Marala	(A40) (BBI DA447)		
Histisol	\ /		,			e (So)		(A10) ( <b>MLRA 147)</b> ie Redox (A16) <b>(MLRA 147, 148)</b>		
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4)  (MLRA 147, 148)  (MLRA 147, 148)								loodplain Soils (F19		
							(MLRA 136			
, ,	d Layers (A5)				Matrix (F	2		w Dark Surface (TF12		
	uck (A10) <b>(LRR I</b>	N)	X Deplete			_		ain in Remarks		
	d Below Dark Su	,			rface (F6	3)				
	ark Surface (A12	,		d Dark	Surface	(F7)				
Sandy I	Mucky Mineral (S	, (1)	Redox I	Depress	sions (F8					
,	, MLŔA 147, 148	,					LRR N, MLRA 136)			
Sandy (	Gleyed Matrix (S	4			(F13)(N					
	Redox (S5)		Piedmo	nt Flood	dplain Sc	ils (F19)	MLRA 148)			
Strippe	d Matrix (S6)		Red Pa	rent Ma	terial (F2	21) <b>(MLR</b>	A 127, 147)			
*1 1' '										
*Indicators	of nyaropnytic ve	getation	and wetland hy	arology	must be	present	, unless disturbed or pro	blem		
						I				
Restrictive I	_ayer (if observe	d)								
Type:					_		Hydric soil preser	nt? <u>Y</u>		
Depth (inch	es):				- -					
Remarks:										
Remarks.										

Designat/Oites Liellesses (Annu 420 b) / Transmission Lie	City/County Compil	Report Name Wetland PB-10		
Project/Site: Holloway-Knox 138 kV Transmission Lin		Sampling Date 6/6/2018		
Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacobs	State: Ohio	Sampling Point: W-mdt-6/6/2018-07 , Range S20 T12N R5W		
Landform (hillslope, terrace, etc.) terrace	Local relief (concave, conv			
Subregion (LRR or MLRA): LRR N Lat.		ng.: -81.051582 Datum: NAD 83		
Soil Map Unit Name GsB - Glenford silt loam, 3 to 8 perce		NWI Classification: R4SBC		
Are climatic/hydrologic conditions of the site typical for this	s time of the yea Yes	X No (If no, explain in remarks		
Are vegetatior, soil, or hydrology	significantly disturbed?	Are "normal circumstances" Yes		
Are vegetatior, soil, or hydrology	naturally problematic	present?		
SUMMARY OF FINDINGS		(If needed, explain any answers in remarks		
Hydrophytic vegetation present'  Hydric soil present?  Yes  Yes	Is the sampled area w	vithin a wetland? Yes		
Wetland hydrology present?  Yes	io ino campica area n			
Tes				
Remarks:				
PEM wetland in valley between pond and inter	mittent stream in maintaine	ad ROW		
T Livi welland in valley between pond and inten	Tilletti Stream in maintaine	d NOV		
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required; check all		econdary Indicators (minimum of two required) Surface Soil Cracks (B6)		
		Sparsely Vegetated Concave Surface (B8)		
<del></del> ` '	uatic Plants (B14)			
		_ Drainage Patterns (B10)		
	Rhizospheres on Living	_ Moss Trim Lines (B16)		
Water Marks (B1) X Roots (C		_ Dry-Season Water Table (C2)		
	e of Reduced Iron (C4) ron Reduction in Tilled	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Soils (C6		Stunted or Stressed Plants (D1)		
<del></del> `	· —	Geomorphic Position (D2)		
	Explain in Remarks)  Shallow Aquitard (D3)			
Inundation Visible on AerialOther (E Imagery (B7)		Microtopographic Relief (D4)		
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)		
Aquatic Fauna (B13)				
Field Observations:	Donth (inches): 1	Wetland		
Surface water present? Yes X No Water table present? Yes No No	Depth (inches): 1 Depth (inches):	hydrology		
Saturation present? Yes X No	Depth (inches): 0	present?		
(includes capillary fringe)		_   present:		
Describe recorded data (stream gauge, monitoring well, a	erial photos, previous inspectio	ns), if availa		
Remarks:				
Saturated throughout with packets of inundation	n: may pariadically receive	flooding		
Saturated throughout with pockets of inundation	i, may pendulcally receive	nooding		

					Sampling Point: W-mdt-6/6/2018
			5		50/20 Thresholds
Plot Size (	30 ft.	Absolute %	Dominant	Indicator	20% 50%
		' Cover	Species	Status	Tree Stratum 0 0
					Sapling/Shrub Stratum 0 0
					Herb Stratum 36 90
					Woody Vine Stratum 0 0
					Dominance Test Worksheet Number of Dominant
		<del></del>			Species that are OBL,
					FACW, or FAC: 3 (A)
			-		Total Number of Dominant
					Species Across all Strata: 3 (B)
			- Total Cover		`
			- Total Cover		Percent of Dominant
		A b = = l t = . 0 /	Daminant	la dia atau	Species that are OBL,
Plot Size (	15 ft.	1			FACW, or FAC: <u>100.00%</u> (A/B
,		Cover	Species	Status	
					Prevalence Index Worksheet
					Total % Cover of:
					OBL species <u>60</u> x 1 = <u>60</u>
					FACW species 100 x 2 = 200
					FAC species $0 \times 3 = 0$
	•				FACU species 0 x 4 = 0
					UPL species $0 \times 5 = 0$
					Column totals 160 (A) 260 (B)
					Prevalence Index = $B/A = 1.63$
		0	= Total Cover		
					Hydrophytic Vegetation Indicators:
Plot Size (	5 ft	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation
1 101 0126 (	J 11.	Cover	Species	Status	X Dominance test is >50%
nsis		60	Υ	FACW	X Prevalence index is≤3.0*
		30	<u> </u>	OBL	Morphological adaptations* (provide
		30	Y	FACW	supporting data in Remarks or on a sepa
lea .			N		sheet)
		20			Problematic hydrophytic vegetation*
ilis		10	N	FACW	(explain)
					*Indicators of hydric soil and wetland hydrology must
					present, unless disturbed or problematic
					Definitions of Vegetation Strata:
					Tree - Woody plants 3 in. (7.6 cm) or more in diameter
					at breast height (DBH), regardless of height.
					Sapling/shrub - Woody plants less than 3 in. DBH ar
					greater than 3.28 ft (1 m) tall.
	_	180	= Total Cover	_	Herb - All herbaceous (non-woody) plants, regardless
DI (C)	00 %	, Absolute %	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
Plot Size (	30 ft.	Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
			•		height.
		_			
					Hydrophytic vegetation
					VAGATATION
		_	= Total Cover		present? Y
-	Plot Size (	Plot Size ( 15 ft.  Plot Size ( 5 ft.  nsis  ea  iilis oetidus	Plot Size ( 15 ft. ) Absolute % Cover 60 30 30 30 40 20 20 20 20 20 10 50 2		Cover   Species   Status

								g
Drafile Door	:tion. (Dogorik	- to the	-lth noodod t	- 40000	nt tha	: diooto n		of in diseasons \
	· · · · · ·	e to the				indicator	or confirm the absence	or indicators.)
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	lox Fea %		Loc**	Texture	Remarks
, ,	` '		`		Type* C		aller aları	
0-12	10YR 5/1	90	10YR 5/8	10	C	PL/M	silty clay	
*Type: C=C	oncentration. D=	:Depletic	n. RM=Reduce	d Matrix	. CS=Co	vered or	Coated Sand Grains	
, ·	PL=Pore Lining,		•		,			
Hvdric Soil	Indicators:						Indicators for	Problematic Hydric Soils:
,			Dark Su	ırface (S	S7)			
Histisol	` '		Polyval	ue Belo	w Surfac	e (S8)		(A10) (MLRA 147)
	pipedon (A2)	(MLRA	,	-,			ie Redox (A16)(MLRA 147, 148)	
Black Histic (A3) Thin Dark Surface (S Hydrogen Sulfide (A4) (MLRA 147, 148)								loodplain Soils (F19
, ,	en Sulfide (A4)					-0	(MLRA 136	
	d Layers (A5)				Matrix (F	-2		w Dark Surface (TF12)
	uck (A10) <b>(LRR I</b> ed Below Dark Su	,	X Deplete		k (F3, irface (F6	2)	Other (Expi	ain in Remarks
	ark Surface (A12	,			Surface	,		
	Mucky Mineral (S	,			sions (F8	` '		
,	, MLRA 147, 14	,					LRR N, MLRA 136)	
	Gleyed Matrix (S	,			e (F13) <b>(N</b>			
	Redox (S5)	•,			· , •		MLRA 148)	
	d Matrix (S6)				•	٠,	A 127, 147)	
	,				`	^	. ,	
*Indicators	of hydrophytic ve	getation	and wetland hy	drology	must be	present	, unless disturbed or pro	blem
						ı		
Restrictive I	Layer (if observe	d)						
Type:	Layer (II observe	u)					Hydric soil prese	nt? Y
Depth (inch	es):				_		,	<del></del>
, ,								
Remarks:								
i								

Project/Site: Holloway-Knox 138 kV Transmission Lin		Report Name Wetland PB-11 Sampling Date 6/07/2018				
Applicant/Owner: <u>FirstEnergy</u>	State: Ohio	Sampling Point: W-mdt-6/07/2018-03				
Investigator(s) M. Thomayer, T.Qualio; Jacobs	Section, Township, Range					
Landform (hillslope, terrace, etc.) depressiona	Local relief (concave, convex, non	e) concave Slope (%): 1				
Subregion (LRR or MLRA): LRR N Lat.						
Soil Map Unit Name GsB - Glenford silt loam, 3 to 8 percentage	ent slope NWI (	Classification: N/A				
Are climatic/hydrologic conditions of the site typical for thi		o (If no, explain in remarks				
Are vegetatior, soil, or hydrology		re "normal circumstances" Yes				
Are vegetatior, soil, or hydrology		resent?				
SUMMARY OF FINDINGS	(II	f needed, explain any answers in remark				
Hydrophytic vegetation present' Yes						
Hydric soil present? Yes	Is the sampled area within a	wetland? Yes				
Wetland hydrology present? Yes						
Remarks:						
PEM wetland in maintained ROW/cow pasture.						
HVDDOLOGY						
HYDROLOGY						
Wetland Hydrology Indicators:		y Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all	that apply) Surface	ce Soil Cracks (B6)				
Surface Water (A1) True Aq	uatic Plants (B14) Spars	ely Vegetated Concave Surface (B8)				
<del></del> ` '		age Patterns (B10)				
	<del></del> .,	Trim Lines (B16)				
		* *				
Water Marks (B1) Roots (C	· — ·	eason Water Table (C2)				
	` ' '	sh Burrows (C8)				
		ation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Soils (C6	· · · · · · · · · · · · · · · · · · ·					
<del></del>	· · · · · · · · · · · · · · · · · · ·	orphic Position (D2)				
Inundation Visible on AerialOther (E	xplain in Remarks) Shallo	ow Aquitard (D3)				
Imagery (B7)	Microt	topographic Relief (D4)				
Water-Stained Leaves (B9)	<u>X</u> FAC-N	Neutral Test (D5)				
Aquatic Fauna (B13)						
Field Observations:						
	( Donth (inches):	Wetland				
Surface water present? Yes No No		hydrology				
	Depth (inches):  Depth (inches):  0					
Saturation present? Yes X No (includes capillary fringe)	Depth (inches).	present? Y				
(includes capillary fringe)						
Describe recorded data (stream gauge, monitoring well, a	varial photos, provious inapactions) if s	ovoilo				
Describe recorded data (stream gauge, monitoring well, a	lenai priotos, previous irispections), ii a	avalla				
Remarks:						
Inomano.						
Saturated throughout with some surface flow						

Sapling/Shrub Plot Siz Stratum Plot Siz		Absolute % Cover	Dominant Species  Total Cover  Dominant Species	Indicator Status	20%   50%
Sapling/Shrub Plot Siz Stratum		Cover	Species  Total Cover  Dominant	Status	Tree Stratum         0         0           Sapling/Shrub Stratum         0         0           Herb Stratum         18         45           Woody Vine Stratum         0         0    Dominance Test Worksheet  Number of Dominant  Species that are OBL,  FACW, or FAC:  Total Number of Dominant  Species Across all Strata:  2 (B)  Percent of Dominant  Species that are OBL,  Species that are OBL,  Total Number of Dominant  Species th
	re ( 15 ft.	0 =	= Total Cover	Indicator	Sapling/Shrub Stratum         0         0           Herb Stratum         18         45           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,           FACW, or FAC:         2         (A)           Total Number of Dominant         Species Across all Strata:         2         (B)           Percent of Dominant         Species that are OBL,
	re ( 15 ft.	Absolute %	Dominant		Herb Stratum 18 45 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL,
	re ( 15 ft.	Absolute %	Dominant		Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL,
	re ( 15 ft.	Absolute %	Dominant		Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL,
	re ( 15 ft.	Absolute %	Dominant		Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL,
	re ( 15 ft.	Absolute %	Dominant		Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL,
Sapling/Shrub Plot Siz Stratum Plot Siz	re ( 15 ft.	Absolute %	Dominant		Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL,
Sapling/Shrub Plot Siz Stratum Plot Siz	re ( 15 ft.	Absolute %	Dominant		FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL,
Sapling/Shrub Plot Siz Stratum Plot Siz	re ( 15 ft.	Absolute %	Dominant		Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL,
Sapling/Shrub Plot Siz Stratum Plot Siz	re ( 15 ft.	Absolute %	Dominant		Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL,
	re ( 15 ft.	Absolute %	Dominant		Percent of Dominant Species that are OBL,
Stratum Piot Siz	re ( 15 ft.	Absolute %	Dominant		Species that are OBL,
	re ( 15 ft.	Absolute %	Dominant		Species that are OBL,
Stratum Piot Siz	re ( 15 ft.	)			
Stratum Piot Siz	ee ( 15 ft.	)			FACVV, OF FAC: 100.00% (A/I
Stratum			Species	Status	
					Prevalence Index Worksheet
					Total % Cover of:
		<del></del>			OBL species 0 x 1 = 0
		<del></del>			FACW species 75 x 2 = 150
					FAC species 15 x 3 = 45
					FACU species 0 x 4 = 0
					UPL species $0 \times 5 = 0$
					Column totals 90 (A) 195 (B)
					Prevalence Index = $B/A = \frac{150}{2.17}$
		<del></del>			1 Tevalence mack = B/A = 2.17
-			Total Cover		
		=	- Total Cover		Hydrophytic Vegetation Indicators:
		Abaaluta 0/	Daminant	la dia atau	
Herb Stratum Plot Siz	ze ( 5 ft.	) Absolute %	Dominant	Indicator	X Rapid test for hydrophytic vegetation
5		' Cover	Species	Status	X Dominance test is >50%
Poa palustris		50	<u>Y</u>	FACW	X Prevalence index is≤3.0*
Juncus effusus		25	Y	FACW	Morphological adaptations* (provide
Rumex crispus		15	N	FAC	supporting data in Remarks or on a sepa
					sheet)
					Problematic hydrophytic vegetation*
					(explain)
					*Indicators of hydric soil and wetland hydrology must
					present, unless disturbed or problematic
					Definitions of Vegetation Strata:
					Tree - Woody plants 3 in. (7.6 cm) or more in diamet
					at breast height (DBH), regardless of height.
					Sapling/shrub - Woody plants less than 3 in. DBH a
					greater than 3.28 ft (1 m) tall.
-		90 =	Total Cover		Herb - All herbaceous (non-woody) plants, regardles
Woody Vino		Absolute 0/	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
Woody Vine Plot Siz	e ( 30 ft.	Absolute %	Dominant	Indicator	
Stratum	•	' Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft i
					height.
					Hydrophytic
					vegetation
			Total Cover		present? Y
			. 0.0. 00001		

							• • • • • • • • • • • • • • • • • • • •	
Profile Door	!ti (Dooorik	- +- +b-	ما معالم ما ما علام ا		- a-a-t-thaa i	! ! - o t o n	the change	-firedicates \
Depth	· · ·	e to tne		ox Fea		indicator	or confirm the absence	of indicators.)
(Inches)	Matrix Color (moist)	%	Color (moist)	ox rea %	Type*	Loc**	Texture	Remarks
0-14	10YR 5/1	95	10YR 4/6	5	С	M	clay loam	
0-14	10110 3/1	90	10111 4/0			IVI	ciay loani	
, ,	•	•	•	d Matrix	, CS=Co	vered or	Coated Sand Grains	
	PL=Pore Lining,	w=watr	IX .					
Hydric Soil Indicators:  Histisol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thin Dark Surface (S3)  (MLRA 147, 148)  Loamy Gleyed Matrix (F3)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  *Indicators of hydrophytic vegetation and wetland hydrology must Indicators of hydrophytic vegetation a							2 cm Muck Coast Prairi Piedmont F (MLRA 136) Very Shallo Other (Expl	w Dark Surface (TF12) ain in Remarks
Restrictive I Type: Depth (inch Remarks:	Layer (if observe	d)			-		Hydric soil presei	nt? <u>Y</u>

				vvetiand PB-12		
Project/Site: Holloway-Knox 138 kV Transmiss		Harrison	Sampling Date 6			
Applicant/Owner: FirstEnergy	State:			W-mdt-6/07/2018-02		
Investigator(s) M. Thomayer, T.Qualio; Jacobs			e S20 T12N R5W			
Landform (hillslope, terrace, etc.) hillslope		ncave, convex, no	,	Slope (%): 1		
Subregion (LRR or MLRA): LRR N	Lat.: 40.39833		81.051836	Datum: NAD 83		
Soil Map Unit Name CnD - Coshocton silt loam, 15	to 25 percent slope	NWI	Classification: N/A			
Are climatic/hydrologic conditions of the site typica			No (If no, ex			
Are vegetatior, soil, or hydro	logy significantl		Are "normal circumst	ances" Yes		
Are vegetatior , soil , or hydro	logynaturally p		oresent?			
		(	If needed, explain a	ny answers in remark		
SUMMARY OF FINDINGS						
Hydrophytic vegetation present Yes						
Hydric soil present? Yes	Is the sam	npled area within a	a wetland? Ye	S		
Wetland hydrology present? Yes						
Remarks:						
PEM wetland on hillside in maintained RO	DW/cow pasture					
1 Em Wolland on Timoldo in Maintainou Pe	strioon pactare					
HYDROLOGY						
Wetland Hydrology Indicators:		Socondo	ry Indicators (minim	um of two required)		
1	ack all that apply)			um or two required)		
Primary Indicators (minimum of one is required; ch			ce Soil Cracks (B6)	0 ( (50)		
	rue Aquatic Plants (B14)		sely Vegetated Conca	ave Surface (B8)		
	lydrogen Sulfide Odor (C1)	X Drain	X Drainage Patterns (B10)			
X Saturation (A3)	xidized Rhizospheres on Li	iving Moss	Moss Trim Lines (B16)			
Water Marks (B1)	Roots (C3)	Dry-S	Dry-Season Water Table (C2)			
	resence of Reduced Iron (C	· — ·	Crayfish Burrows (C8)			
	tecent Iron Reduction in Till		Saturation Visible on Aerial Imagery (C9)			
<del></del>	Soils (C6)		Stunted or Stressed Plants (D1)			
Iron Deposits (B5) X T	hin Muck Surface (C7)	Geor	Geomorphic Position (D2)			
Inundation Visible on Aerial	Other (Explain in Remarks)	Shall	Shallow Aquitard (D3)			
Imagery (B7)		Micro	topographic Relief (D	04)		
Water-Stained Leaves (B9)		X FAC-	Neutral Test (D5)			
Aquatic Fauna (B13)						
Field Observations:						
Surface water present? Yes No	X Depth (inches)	):	Wetland			
Water table present? Yes No			hydrology			
Saturation present? Yes X No	Depth (inches)	): 0	present?	Υ		
(includes capillary fringe)			-			
			-			
Describe recorded data (stream gauge, monitoring	well, aerial photos, previo	ous inspections), if	availa			
Remarks:						
Saturated throughout with some surface	flow					
Saturated infoughout with some sufface	IOVV					

						50/20 Thresholds	
			Abaaluta 0/	Dominant	la dia atau	50/20 Inresnoids	
Tree Stratum	Plot Size (	30 ft.	Absolute %	Dominant	Indicator		20% 50%
	,		Cover	Species	Status	Tree Stratum	0 0
						Sapling/Shrub Stratum	0 0
						Herb Stratum	21 53
						Woody Vine Stratum	0 0
						Dominance Test Workshe	et
						Number of Dominant	
						Species that are OBL,	
						FACW, or FAC:	1 (A)
						Total Number of Dominant	
						Species Across all Strata:	2 (B)
			0 =	Total Cover		Percent of Dominant	
Canling/Church			Abaaluta 0/	Dominant	la dia atau	Species that are OBL,	EO 000/ /A/E
Sapling/Shrub	Plot Size (	15 ft.	) Absolute %	Dominant	Indicator	FACW, or FAC:	50.00% (A/E
Stratum	•		' Cover	Species	Status		
						Prevalence Index Worksh	eet
						Total % Cover of:	
					-	OBL species 25 x 1	= 25
						FACW species 40 x 2	
					-	FAC species 0 x 3	
						FACU species 0 x 4	
						UPL species 0 x 5	
						Column totals 65 (A)	
						Prevalence Index = B/A =	1.62
						Trevalence index = B/A =	1.02
				Total Cover			
			=	= Total Cover		Hydrophytic Vegetation Ir	dicators:
			Absolute 0/	Dominant	Indicator		
Herb Stratum	Plot Size (	5 ft.	) Absolute %	Dominant	Indicator	Rapid test for hydrophy	
			Cover	Species	Status	Dominance test is >50%	
Carex sp.			40	<u>Y</u>		X Prevalence index is≤3.0	
Juncus effusus			25	Y	FACW	Morphological adaptation	
Carex vulpinoide			20	N	OBL	supporting data in Rem	arks or on a sepa
Eupatorium perf			15	N	FACW	sheet)	
Scirpus atrovirer	าร		5	N	OBL	Problematic hydrophytic	c vegetation*
						(explain)	
						*Indicators of hydric soil and wet	land hydrology must
						present, unless disturbed or prob	olematic
						Definitions of Vegetation	Strata:
						Tree - Woody plants 3 in. (7.6 cr	
						at breast height (DBH), regardles	
						Sapling/shrub - Woody plants le	ess than 3 in. DBH a
						greater than 3.28 ft (1 m) tall.	
			105 =	Total Cover		Herb - All herbaceous (non-wood	dy) plants, regardless
\\/\.\/			AL- 1 ( C)	D' '	La alla d	size, and woody plants less than	3.28 ft tall.
Woody Vine	Plot Size (	30 ft.	Absolute %	Dominant	Indicator		
Stratum	(		Cover	Species	Status	Woody vines - All woody vines	greater than 3.28 ft ir
			<u> </u>			height.	
			<u> </u>			Hydrophytic	
						vegetation	
			0 =	= Total Cover		-	
			<del></del>			· · · · · · · · · · · · · · · · · · ·	=
marks: (Include pho				= Total Cover		present? Y	_

								g. •
Profile Desc	crintion: (Describ	ne to the	denth needed to	n docum	nent the	indicator	or confirm the absence	of indicators )
Depth	Matrix	oc to the	_	lox Fea		indicator		,
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	10YR 4/1	95	10YR 4/6	5	C	M	silty clay loam	
0					Ť		only only roun	
· ·	•		-	d Matrix	, CS=Co	vered or	Coated Sand Grains	
	PL=Pore Lining,	M=Matr	IX					
Histisol Histic E Black H Hydroge Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Stripped	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR I d Below Dark Su ark Surface (A12 Mucky Mineral (S , MLRA 147, 146 Gleyed Matrix (S Redox (S5) d Matrix (S6)	urface ( <i>P</i> 2) 61) <b>8)</b> 4	(MLRA Thin Da (MLRA Loamy X Deplete Redox I Deplete Redox I Iron-Ma Umbric Piedmo Red Pa	ue Belo 147, 14 rk Surfa 147, 14 Gleyed d Matrix Dark Su d Dark Depress nganes Surface nt Flood rent Ma	w Surface (89) (18) Matrix (F3) Matrix (F3) Inface (F6) Surface Masse (F13) (N dplain Sc terial (F2)	F2 (F7) () (S (F12) () () () () () () () () () () () () ()	2 cm Muck ( Coast Prairi Piedmont Fl (MLRA 136) Very Shallor Other (Expla	w Dark Surface (TF12
Restrictive I Type: Depth (inch	_ayer (if observe	d)			- -		Hydric soil preser	nt? <u>Y</u>
Remarks:								

Project/Site: Holloway-Knox 138 kV Transmission Line Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacobs Landform (hillslope, terrace, etc.) hillslope Subregion (LRR or MLRA): LRR N Lat.: Soil Map Unit Name CnD - Coshocton silt loam, 15 to 25 p Are climatic/hydrologic conditions of the site typical for this Are vegetatior , soil , or hydrology Are vegetatior , soil , or hydrology	State: Ohi Section, To Local relief (concave 40.398059 Dercent slope	rrison  io  ownship, Range /e, convex, none)  Long.: -81.  NWI Cla /es X No sturbed? Are ematic? pres	Sampling Date 6 Sampling Point: \( \) S19 T12N R5W \( \) concave \( \) 051966 assification: \( \) \( \)/A \( \) "normal circumstent?	W-mdt-6/07/2018-01 Slope (%): 1 Datum: NAD 83  Explain in remarks		
SUMMARY OF FINDINGS						
Hydrophytic vegetation present' Hydric soil present?  Wetland hydrology present?  Yes Yes Yes	Is the sampled	d area within a w	etland? Ye	s_		
PEM wetland on hillside in maintained ROW.  HYDROLOGY						
Wetland Hydrology Indicators:		Secondary I	ndicators (minim	um of two required)		
Primary Indicators (minimum of one is required; check all	that apply)	Surface	Soil Cracks (B6)			
Surface Water (A1) True Aqu	atic Plants (B14)	Sparsely	Vegetated Conca	ave Surface (B8)		
High Water Table (A2) Hydroger	n Sulfide Odor (C1)	X Drainage	e Patterns (B10)			
X Saturation (A3) Oxidized	Rhizospheres on Living Moss Trim Lines (B16)					
Water Marks (B1) Roots (C			son Water Table (	C2)		
Sediment Deposits (B2) Presence	e of Reduced Iron (C4)	Crayfish	Burrows (C8)	,		
Drift Deposits (B3) Recent Ir	on Reduction in Tilled	Saturation	ation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Soils (C6						
Iron Deposits (B5) X Thin Muc	ck Surface (C7) Geomorphic Position (D2)					
Inundation Visible on Aerial Other (Ex	xplain in Remarks)	Shallow	Aquitard (D3)			
Imagery (B7)		Microtop	ographic Relief (D	04)		
Water-Stained Leaves (B9)		X FAC-Nei	utral Test (D5)			
Aquatic Fauna (B13)						
Field Observations:						
Surface water present? Yes No X	Depth (inches):		Wetland			
Water table present? Yes No X	Depth (inches):		hydrology			
Saturation present? Yes X No	Depth (inches):	0	present?	Y		
(includes capillary fringe)						
Describe recorded data (stream gauge, monitoring well, and	erial photos, previous in	nspections), if ava	aila			
Remarks:						
Saturated throughout with some surface flow						

Sapling/Shrub Plot	Size ( 30 ft.	) Absolute Cover	% Dominant Species ————————————————————————————————————	Indicator Status	50/20 Thresholds           20%           Tree Stratum         0           Sapling/Shrub Stratum         0           Herb Stratum         23           Woody Vine Stratum         0           Dominance Test Worksheet         Number of Dominant           Species that are OBL,         FACW, or FAC:         1           Total Number of Dominant         1	50% 0 0 58 0
Sapling/Shrub Plot Stratum Plot		Cover	Species		Tree Stratum 0 Sapling/Shrub Stratum 0 Herb Stratum 23 Woody Vine Stratum 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 Total Number of Dominant	0 0 58 0
Sapling/Shrub Plot Stratum Plot	Size ( 15 ft.	0		Status	Sapling/Shrub Stratum 0 Herb Stratum 23 Woody Vine Stratum 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 Total Number of Dominant	0 58 0
Sapling/Shrub	Size ( 15 ft.		= Total Cover		Herb Stratum 23 Woody Vine Stratum 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 Total Number of Dominant	58 0
Sapling/Shrub	Size ( 15 ft.		= Total Cover		Woody Vine Stratum 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 Total Number of Dominant	0
Sapling/Shrub Plot Stratum Plot	Size ( 15 ft.		= Total Cover		Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 1 Total Number of Dominant	
Sapling/Shrub Plot Stratum Plot	Size ( 15 ft.		= Total Cover		Number of Dominant Species that are OBL, FACW, or FAC: Total Number of Dominant	(A)
Sapling/Shrub Plot Stratum Plot	Size ( 15 ft.		= Total Cover		Number of Dominant Species that are OBL, FACW, or FAC: Total Number of Dominant	(A)
Sapling/Shrub Plot Stratum	Size ( 15 ft.		= Total Cover		Species that are OBL, FACW, or FAC:  Total Number of Dominant	(A)
Sapling/Shrub	Size( 15 ft.		= Total Cover		FACW, or FAC: 1 Total Number of Dominant	(A)
Sapling/Shrub Plot Stratum	Size ( 15 ft.		= Total Cover		Total Number of Dominant	(A)
Sapling/Shrub Plot Stratum	Size ( 15 ft.		= Total Cover			
Sapling/Shrub Plot Stratum	Size( 15 ft.		= Total Cover			<b>(D)</b>
Stratum	Size ( 15 ft.		= Total Cover		Species Across all Strata: 1	(B)
Stratum	Size ( 15 ft.	, Absolute			Percent of Dominant	
Stratum	Size ( 15 ft.	, Absolute			Species that are OBL,	
Stratum	0.20 ( 10 1	)	% Dominant	Indicator	FACW, or FAC: 100.00	<u>%</u> (A/B)
		Cover	Species	Status		
					Prevalence Index Worksheet	
					Total % Cover of:	
					OBL species 25 x 1 = 2	5
			_		FACW species $90 \times 2 = 18$	
					FAC species 0 x 3 = 0	
					FACU species $0 \times 4 = 0$	
					UPL species 0 x 5 = 0	
		<del></del>	<u> </u>			) <u>5</u> (B)
					Prevalence Index = B/A = 1.78	
		<del></del>			1 Tevalence index = B/A = 1.70	
		0	= Total Cover			
					Hydrophytic Vegetation Indicators	:
		, Absolute	% Dominant	Indicator	X Rapid test for hydrophytic vegeta	
Herb Stratum Plot	Size ( 5 ft.	Cover	Species	Status	X Dominance test is >50%	
Impatiens capensis		60	Y	FACW	X Prevalence index is≤3.0*	
Phalaris arundinacea		15	_ <u> </u>	FACW	Morphological adaptations* (prov	ide
Agrimonia parviflora		15	N	FACW	supporting data in Remarks or or	
Carex comosa		15	N	OBL	sheet)	i a sepaid
		10	N	OBL		on*
			IN	UBL	Problematic hydrophytic vegetati	JII
<u> </u>		<del></del>			(explain)	
<u> </u>		<del></del>			*Indicators of hydric soil and wetland hydrol	ogy must b
} 					present, unless disturbed or problematic	
					Definitions of Vegetation Strata:	
					Tree - Woody plants 3 in. (7.6 cm) or more	in diameter
2					at breast height (DBH), regardless of height	
					Sapling/shrub - Woody plants less than 3	n. DBH and
		<del></del>			greater than 3.28 ft (1 m) tall.	
		115	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless
144 1 10			o., = :		size, and woody plants less than 3.28 ft tall.	•
Woody Vine Plot	Size ( 30 ft.	) Absolute		Indicator		
Stratum	,	' Cover	Species	Status	Woody vines - All woody vines greater that	1 3.28 ft in
					height.	
ł						
					Hydrophytic	
5					vegetation	
		0	= Total Cover		present? Y	
emarks: (Include photo num	bers here or on a	-				

								g		
Drofile Door	orintian. (Dogorik	o to the	donth nooded to	dooum	oont the	indicator	or confirm the channe	of indicators )		
	· · · · · ·	e to the				indicator	or confirm the absence	or indicators.)		
Depth	Matrix	0/		lox Fea		Loc**	Texture	Remarks		
(Inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type*		ailte alas la ana			
0-14	10YR 4/1	95	10YR 4/6	5	С	M	silty clay loam			
*Type: C=C	oncentration, D=	Depletion	n, RM=Reduced	d Matrix	, CS=Co	vered or	Coated Sand Grains			
**Location:	PL=Pore Lining,	M=Matri	x							
Hydric Soil	Indicators:						Indicators for F	Problematic Hydric Soils:		
-			Dark Su					•		
Histisol	` '		,		w Surfac	e (S8)		(A10) ( <b>MLRA 147)</b>		
	pipedon (A2)	(MLRA	,	-,			ie Redox (A16)(MLRA 147, 148)			
Black Histic (A3) Thin Dark Surface (S Hydrogen Sulfide (A4) (MLRA 147, 148)								loodplain Soils (F19		
, ,	en Sulfide (A4)					-0	(MLRA 136			
	d Layers (A5) uck (A10) <b>(LRR</b> I	MIN.	X Deplete		Matrix (F	-2		w Dark Surface (TF12		
	ed Below Dark Su	,			x (F3, irface (F6	3)	Other (Expi	alli ili Kelliaiks		
	ark Surface (A12	,			Surface	,				
	Mucky Mineral (S	,			sions (F8	` '				
,	, MLRA 147, 148	,					LRR N, MLRA 136)			
	Gleyed Matrix (S	,			(F13)(N					
Sandy I	Redox (S5)	•	Piedmo	nt Flood	dplain Sc	Soils (F19) <b>MLRÁ 148</b> )				
Stripped	d Matrix (S6)		Red Pa	rent Ma	terial (F2	21) <b>(MLR</b>	A 127, 147)			
*Indicators	of hydrophytic ve	egetation	and wetland hy	drology	must be	present	, unless disturbed or pro	blem		
Postrictivo I	Layer (if observe	d)								
Type:	Layer (II Observe	u)					Hydric soil preser	nt? Y		
Depth (inch	es):				_		riyario son preser	··· <u> </u>		
(					-					
Remarks:										

		Report Name <u>Wetland PB-14</u>
Project/Site: Holloway-Knox 138 kV Trar	nsmission Line City/County:	Harrison Sampling Date 6/07/2018
Applicant/Owner: FirstEnergy	State:	
Investigator(s) M. Thomayer, T.Qualio; Jac		n, Township, Range S19 T12N R5W
Landform (hillslope, terrace, etc.) hillslop		ncave, convex, none) <u>concave</u> Slope (%): 1
Subregion (LRR or MLRA): LRR N	Lat.: 40.383833	Long.: -81.052798 Datum: NAD 83
Soil Map Unit Name WnE - Westmoreland-D	Dekalb complex, 25 to 40 percent	t slope NWI Classification: N/A
Are climatic/hydrologic conditions of the site		Yes X No (If no, explain in remarks
Are vegetatior, soil, or	hydrologysignificantly	y disturbed? Are "normal circumstances" Yes
Are vegetatior , soil , or	r hydrologynaturally pi	
		(If needed, explain any answers in remark
SUMMARY OF FINDINGS		
Hydrophytic vegetation present' Yes		
Hydric soil present? Yes	Is the sam	pled area within a wetland? Yes
Wetland hydrology present? Yes	<sup>-</sup>	<u>——</u>
Remarks:	-	
Remarks.		
PEM wetland on hillside in maintain	ed ROW.	
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is requir	red: check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
· · ·		
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	X Drainage Patterns (B10)
X Saturation (A3)	Oxidized Rhizospheres on Li	<u> </u>
Water Marks (B1)	Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C Recent Iron Reduction in Tille	· · · · · · · · · · · · · · · · · · ·
Drift Deposits (B3) Algal Mat or Crust (B4)	Soils (C6)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Inundation Visible on Aerial	Other (Explain in Remarks)	Shallow Aquitard (D3)
Imagery (B7)		X Microtopographic Relief (D4)
Water-Stained Leaves (B9)		X FAC-Neutral Test (D5)
Aquatic Fauna (B13)		
Field Observations:		
Surface water present? Yes	No X Depth (inches)	
Water table present? Yes	No X Depth (inches)	
Saturation present? Yes X	No Depth (inches)	:0
(includes capillary fringe)		
Describe recorded data (stream gauge, mon	itoring well aerial photos previo	uus inspections) if availa
Describe recorded data (stream gadge, mon	normy wen, aenai priotos, previo	nus mapeediona, ii avalla
Remarks:		
Saturated throughout with some sur	face flow	
•		

				50/20 Thresholds
Tree Stratum Plot Size ( 30 ft. )	Absolute % Cover	Dominant Species	Indicator Status	Z0%         50%           Tree Stratum         0         0           Sapling/Shrub Stratum         0         0           Herb Stratum         33         83
3 4  5				Woody Vine Stratum 0 0  Dominance Test Worksheet  Number of Dominant
7 8				Species that are OBL, FACW, or FAC: Total Number of Dominant
9	_			Species Across all Strata: 2 (B)
Sapling/Shrub Diet Size ( 15 th )	0 :	= Total Cover  Dominant	Indicator	Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)
Stratum Plot Size ( 15 ft. )	Cover	Species	Status	
1 2 3				Prevalence Index Worksheet  Total % Cover of:  OBL species 90 x 1 = 90
4 5 6				FACW species 50 x 2 = 100 FAC species 25 x 3 = 75 FACU species 0 x 4 = 0
7 8 9				UPL species $0$ x 5 = $0$ Column totals $165$ (A) $265$ (B)  Prevalence Index = B/A = $1.61$
0	0 :	= Total Cover		
Herb Stratum Plot Size ( 5 ft. )	Absolute %	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation X Dominance test is >50%
1 Carex vulpinoidea 2 Impatiens capensis	60 50	Y Y	OBL FACW	X Prevalence index is≤3.0* Morphological adaptations* (provide
3 Dichanthelium clandestinum 4 Carex lurida 5 Typha angustifolia	25 20 5	N N N	FAC OBL OBL	supporting data in Remarks or on a separa sheet)  Problematic hydrophytic vegetation*
6 Symplocarpus foetidus 7 8	5	N	OBL	(explain)  *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
				Definitions of Vegetation Strata:
1 2 3				<b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
4 5				Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Manda Non-		= Total Cover	In all a d	<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum Plot Size ( 30 ft. )	Absolute % Cover	Dominant Species	Indicator Status	Woody vines - All woody vines greater than 3.28 ft in height.
2 3 4				Hydrophytic
5		= Total Cover		vegetation present? Y
emarks: (Include photo numbers here or on a sepa	arate sheet			1
V				

								g
Profile Desc	crintion: (Describ	ne to the	denth needed to	o docum	nent the	indicator	or confirm the absence	of indicators )
Depth	Matrix	oc to the	_	ox Fea		indicator	Texture	,
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Remarks	
0-14	10YR 4/2	90	10YR 4/6	10	C	M	sandy clay	
0 11	10111 1/2	- 00	10111 1/0		Ť		danay day	
· ·	•		•	d Matrix	, CS=Co	overed or	Coated Sand Grains	
	PL=Pore Lining,	M=Matr	IX					
Hydric Soil Indicators:    Dark Surface (S7)								(A10) (MLRA 147) The Redox (A16)(MLRA 147, 148) The Redox (A16)(MLRA 147, 148) The Redox (A16)(MLRA 147, 148) The Redox (A16) The Redox (TF12) The Redox (A16)
Restrictive I Type: Depth (inch	_ayer (if observe	d)			- -		Hydric soil preser	nt? Y
Remarks:								

Project/Site: Holloway-Knox 138 kV Transmission Line Applicant/Owner: FirstEnergy	City/County: <u>Harrison</u> Sampli	Name Wetland PB-15 6/07/2018 ing Point: W-mdt-6/07/2018-08
Investigator(s) M. Thomayer, T.Qualio; Jacob:	Section, Township, Range S24 T1	
Landform (hillslope, terrace, etc.) floodplain		ncave Slope (%): 1
Subregion (LRR or MLRA): LRR N Lat.:		
Soil Map Unit Name CnD - Coshocton silt loam, 15 to 25		
Are climatic/hydrologic conditions of the site typical for this		(If no, explain in remarks
Are vegetatior, soil, or hydrology		al circumstances" Yes
Are vegetatior, soil, or hydrology	naturally problematic present?	avalain any anavora in remarks
SUMMARY OF FINDINGS	(ii needed,	explain any answers in remark
Hydrophytic vegetation present' Hydric soil present? Wetland hydrology present? Yes Yes	Is the sampled area within a wetland	? Yes_
Remarks:		
PEM wetland in maintained ROW/cow pasture	and within 100-Year floodplain.	
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicate	ors (minimum of two required)
Primary Indicators (minimum of one is required; check all	•	` '
		ated Concave Surface (B8)
	n Sulfide Odor (C1) Drainage Patter	, ,
		, ,
Water Marks (B1) Roots (C		, ,
<del></del>	e of Reduced Iron (C4) Crayfish Burrow	
<del></del>	` <i>'</i>	le on Aerial Imagery (C9)
Algal Mat or Crust (B4) Soils (C6		ssed Plants (D1)
<del></del> `	k Surface (C7) X Geomorphic Po	, ,
	(c) (c) (c) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	, ,
Inundation Visible on AerialOther (E. Imagery (B7)	Microtopographi	, ,
Water-Stained Leaves (B9)	X FAC-Neutral Te	, ,
Aquatic Fauna (B13)	<u></u>	or (20)
<u> </u>		
Field Observations:	Depth (inches): 1 Wetlar	ad
Surface water present? Yes X No Water table present? Yes X No X	Bopan (monoo):	
	Depth (inches): hydrol Depth (inches): 0 preser	
Saturation present? Yes X No (includes capillary fringe)	Depth (inches):0 preser	nt? <u>Y</u>
(morades capillary minge)		
Describe recorded data (stream gauge, monitoring well, a	erial photos, previous inspections), if availa	
Remarks:		
Saturated throughout, 80% inundated		

Plot Size (	30 ft.	)	Absolute % Cover	Dominant Species	Indicator	50/20 Thresholds  20% 50%  Tree Stratum 0 0
,		)				
			Cover	Species		I Tree Stratum () ()
				0,00.00	Status	
						Sapling/Shrub Stratum 0 0
						Herb Stratum 21 53
						Woody Vine Stratum 0 0
						Dominance Test Worksheet Number of Dominant
						Species that are OBL,
						FACW, or FAC: 2 (A)
						Total Number of Dominant
				<del></del>		Species Across all Strata: 2 (B)
				: Total Cover		Percent of Dominant
						Species that are OBL,
Plot Size (	15 ft.	)				FACW, or FAC: <u>100.00%</u> (A/B)
101 0.20 (		,	Cover	Species	Status	
						Prevalence Index Worksheet
						Total % Cover of:
						OBL species 70 x 1 = 70
						FACW species 35 x 2 = 70
						FAC species 0 x 3 = 0
						FACU species 0 x 4 = 0
						UPL species 0 x 5 = 0
						Column totals 105 (A) 140 (B)
						Prevalence Index = $B/A = 1.33$
			0 =	Total Cover		
						Hydrophytic Vegetation Indicators:
Plot Size (	5 ft.	)				X Rapid test for hydrophytic vegetation
(		,	Cover	Species		X Dominance test is >50%
			60	Y	OBL	X Prevalence index is≤3.0*
			30	Y	FACW	Morphological adaptations* (provide
			10	N	OBL	supporting data in Remarks or on a separ
atum			5	<u>N</u>	FACW	sheet)
						Problematic hydrophytic vegetation*
						(explain)
						*Indicators of hydric soil and wetland hydrology must b
						present, unless disturbed or problematic
						Definitions of Vegetation Strata:
						Tree - Woody plants 3 in. (7.6 cm) or more in diamete
					-	at breast height (DBH), regardless of height.
						Sapling/shrub - Woody plants less than 3 in. DBH an
						greater than 3.28 ft (1 m) tall.
			105=	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
DI 4 DI 4		,	Absolute %	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
Piot Size (	30 ft.	)	Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
				•	-	height.
						Hydrophytic
						vegetation
			0 =	Total Cover		present? Y
numbers hei	re or on a	separa	te sheet)			
	Plot Size (	Plot Size ( 5 ft.	Plot Size ( 5 ft. )  atum  Plot Size ( 30 ft. )	Plot Size ( 15 ft. ) Absolute % Cover	Plot Size ( 15 ft. )	Absolute %   Dominant   Indicator

								g : •
Profile Door		- 4- 4bo	م ما ما ما ما ما ما			!!:otor	the change	-firedicators
Depth	· · · · · · · · · · · · · · · · · · ·	e to the		lox Fea		indicator	or confirm the absence	of indicators.)
(Inches)	Matrix Color (moist)	%	Color (moist)	ox Fea	Type*	Loc**	Texture	Remarks
0-14	10YR 5/2	95	10YR 4/6	10	С	M	silty clay	
0-14	10110 3/2	90	10111 4/0	10		IVI	Silty Clay	
· ·	oncentration, D= PL=Pore Lining,		•	d Matrix	, CS=Co	vered or	Coated Sand Grains	
	<u> </u>	ivi–iviati	ix				ludiaataua fau l	Dualdamentia I lenduia Cailan
Hydric Soil Indicators:    Dark Surface (S7)								(A10) (MLRA 147) ie Redox (A16)(MLRA 147, 148) loodplain Soils (F19 i, 147) w Dark Surface (TF12) ain in Remarks
Restrictive I Type: Depth (inch	_ayer (if observe	d)			- -		Hydric soil prese	nt? <u>Y</u>
Remarks:								

Project/Site: Holloway-Knox 138 kV Transmission Lin Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacob: Landform (hillslope, terrace, etc.) terrace Subregion (LRR or MLRA): LRR N Lat Soil Map Unit Name CnD - Coshocton silt loam, 15 to 25 Are climatic/hydrologic conditions of the site typical for th Are vegetatior , soil , or hydrology Are vegetatior , soil , or hydrology SUMMARY OF FINDINGS	State: Ohio Section, Townsl Local relief (concave, compared to the state) 40.377245 percent slope	Sampling Point: W-mdt-6/07/2018-07 hip, Range S24 T11N R5W hovex, none; concave Slope (%): Long: -81.053006 Datum: NAD 83  NWI Classification: R4SBC  X No (If no, explain in remarks hd? Are "normal circumstances" Yes
Hydrophytic vegetation present' Hydric soil present? Wetland hydrology present? Yes Yes	Is the sampled are	a within a wetland? Yes
Remarks: PEM wetland in maintained ROW. Northern po	ortion of wetland is surrou	unded by ag field
High Water Table (A2)  X Hydroge X Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  X Hydroge  A Hydroge  Presence  Roots (6  Presence  Soils (C)  X Thin Mu	puatic Plants (B14) en Sulfide Odor (C1) d Rhizospheres on Living C3) ee of Reduced Iron (C4) Iron Reduction in Tilled	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)  X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)  X Geomorphic Position (D2) Shallow Aquitard (D3)  X Microtopographic Relief (D4) X FAC-Neutral Test (D5)
Field Observations:  Surface water present? Yes X No Water table present? Yes No Saturation present? Yes X No (includes capillary fringe)  Describe recorded data (stream gauge, monitoring well, and the stream gauge)	Depth (inches): 1  X Depth (inches): 0  Depth (inches): 0	Wetland hydrology present? Y  ctions), if availa
Remarks: Saturated throughout, 80% inundated; some s	urface flow	

r = To	Dominant Species  Otal Cover  Dominant Species  Otal Cover  Dominant Species  Y Y N	Indicator Status  Indicator Status  Indicator Status  FACW OBL	Tree Stratum 0 0 0 Sapling/Shrub Stratum 0 0 0 Herb Stratum 26 65 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/E)  Prevalence Index Worksheet Total % Cover of: OBL species 55 x 1 = 55 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 130 (A) 205 Column totals 130 (A) 205 Column totals 130 (A) 205 Whydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separation)
r = To	otal Cover Dominant Species  Otal Cover  Dominant Species  Y Y N	Indicator Status  Indicator Status  Indicator Status  FACW	Tree Stratum 0 0 0 Sapling/Shrub Stratum 0 0 0 Herb Stratum 26 65 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/E)  Prevalence Index Worksheet Total % Cover of: OBL species 55 x 1 = 55 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 130 (A) 205 (B) Prevalence Index = B/A = 1.58  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
= To	otal Cover Dominant Species Otal Cover Dominant Species Y Y N	Indicator Status  Indicator Status  FACW	Sapling/Shrub Stratum 0 0 Herb Stratum 26 65 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/E)  Prevalence Index Worksheet Total % Cover of: OBL species 55 x 1 = 55 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 130 (A) 205 (B) Prevalence Index = B/A = 1.58  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
= % [	Dominant Species  Otal Cover  Dominant Species Y Y N	Status  Indicator Status FACW	Herb Stratum 26 65 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/E)  Prevalence Index Worksheet Total % Cover of: OBL species 55 x 1 = 55 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 130 (A) 205 Column totals 130 (A) 1.58  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
= % [	Dominant Species  Otal Cover  Dominant Species Y Y N	Status  Indicator Status FACW	Woody Vine Stratum 0 0   Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)   Total Number of Dominant Species Across all Strata: 2 (B)   Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/E   Prevalence Index Worksheet Total % Cover of: 0BL species 55 x 1 = 55   FACW species 75 x 2 = 150   FAC species 0 x 3 = 0   FACU species 0 x 4 = 0   UPL species 0 x 5 = 0   Column totals 130 (A) 205 (B)   Prevalence Index = B/A = 1.58    Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is≤3.0*  Morphological adaptations* (provide
= % [	Dominant Species  Otal Cover  Dominant Species Y Y N	Status  Indicator Status FACW	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across all Strata: 2 (B) Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/E)  Prevalence Index Worksheet Total % Cover of: OBL species 55 x 1 = 55 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 130 (A) 205 (B) Prevalence Index = B/A = 1.58  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
= % [	Dominant Species  Otal Cover  Dominant Species Y Y N	Status  Indicator Status FACW	Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Prevalence Index Worksheet  Total % Cover of: OBL species  FACW species  FACW species  Total % Species  Total % Cover of: OBL species  Total % Cover of: OBL species  Total % Species  Total % Cover of: OBL
= % [	Dominant Species Total Cover Dominant Species Y Y	Status  Indicator Status FACW	Number of Dominant Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Prevalence Index Worksheet  Total % Cover of: OBL species  FACW species  FACW species  Total % Species  Total % Cover of: OBL species  Total % Cover of: OBL species  Total % Species  Total % Cover of: OBL
= % [	Dominant Species Total Cover Dominant Species Y Y	Status  Indicator Status FACW	Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Prevalence Index Worksheet  Total % Cover of: OBL species  FACW species  Total % Species  Total % Species  Total % Cover of: OBL species  Total % Species  Total % Species  Total % Species  Total % Cover of: OBL species  Total % Spec
= % [	Dominant Species Total Cover Dominant Species Y Y	Status  Indicator Status FACW	FACW, or FAC:  Total Number of Dominant Species Across all Strata:  Percent of Dominant Species that are OBL, FACW, or FAC:  Prevalence Index Worksheet  Total % Cover of: OBL species  FACW species  FACW species  Total % Species  Total % Cover of: OBL species  Total % Cover of: OBL species  Total % Species  Total % Species  Total % Cover of: OBL species  Total % Cover o
= % [	Dominant Species Total Cover Dominant Species Y Y	Status  Indicator Status FACW	Total Number of Dominant Species Across all Strata: 2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/E)  Prevalence Index Worksheet  Total % Cover of: OBL species 55 x 1 = 55 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 130 (A) 205 (B) Prevalence Index = B/A = 1.58  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
= % [	Dominant Species Total Cover Dominant Species Y Y	Status  Indicator Status FACW	Species Across all Strata:2 (B)  Percent of Dominant Species that are OBL, FACW, or FAC:100.00% (A/E)  Prevalence Index Worksheet  Total % Cover of:  OBL species55
= % [	Dominant Species Total Cover Dominant Species Y Y	Status  Indicator Status FACW	Percent of Dominant Species that are OBL, FACW, or FAC:  Prevalence Index Worksheet  Total % Cover of: OBL species 55 x 1 = 55 FACW species 75 x 2 = 150 FAC species 0 x 3 = 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column totals 130 (A) 205 (B) Prevalence Index = B/A = 1.58  Hydrophytic Vegetation Indicators: X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
= % [	Dominant Species Total Cover Dominant Species Y Y	Status  Indicator Status FACW	Species that are OBL, FACW, or FAC: $\underline{100.00\%}$ (A/E)  Prevalence Index Worksheet  Total % Cover of:  OBL species $\underline{55}$ x 1 = $\underline{55}$ FACW species $\underline{75}$ x 2 = $\underline{150}$ FAC species $\underline{0}$ x 3 = $\underline{0}$ FACU species $\underline{0}$ x 4 = $\underline{0}$ UPL species $\underline{0}$ x 5 = $\underline{0}$ Column totals $\underline{130}$ (A) $\underline{205}$ (B)  Prevalence Index = B/A = $\underline{1.58}$ Hydrophytic Vegetation Indicators: $\underline{X}$ Rapid test for hydrophytic vegetation $\underline{X}$ Dominance test is >50% $\underline{X}$ Prevalence index is $\underline{\le 3.0^*}$ Morphological adaptations* (provide
r	Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACW	Species that are OBL, FACW, or FAC: $\underline{100.00\%}$ (A/E)  Prevalence Index Worksheet  Total % Cover of:  OBL species $\underline{55}$ x 1 = $\underline{55}$ FACW species $\underline{75}$ x 2 = $\underline{150}$ FAC species $\underline{0}$ x 3 = $\underline{0}$ FACU species $\underline{0}$ x 4 = $\underline{0}$ UPL species $\underline{0}$ x 5 = $\underline{0}$ Column totals $\underline{130}$ (A) $\underline{205}$ (B)  Prevalence Index = B/A = $\underline{1.58}$ Hydrophytic Vegetation Indicators: $\underline{X}$ Rapid test for hydrophytic vegetation $\underline{X}$ Dominance test is >50% $\underline{X}$ Prevalence index is $\underline{\le 3.0^*}$ Morphological adaptations* (provide
r	Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACW	FACW, or FAC: $\underline{100.00\%}$ (A/E  Prevalence Index Worksheet  Total % Cover of:  OBL species $\underline{55}$ x 1 = $\underline{55}$ FACW species $\overline{75}$ x 2 = $\underline{150}$ FAC species $\underline{0}$ x 3 = $\underline{0}$ FACU species $\underline{0}$ x 4 = $\underline{0}$ UPL species $\underline{0}$ x 5 = $\underline{0}$ Column totals $\underline{130}$ (A) $\underline{205}$ (B)  Prevalence Index = B/A = $\underline{1.58}$ Hydrophytic Vegetation Indicators: $\underline{X}$ Rapid test for hydrophytic vegetation $\underline{X}$ Dominance test is >50% $\underline{X}$ Prevalence index is≤3.0* Morphological adaptations* (provide
r	Species  Total Cover  Dominant Species Y Y N	Status  Indicator Status FACW	Prevalence Index Worksheet  Total % Cover of:  OBL species 55 x 1 = 55  FACW species 75 x 2 = 150  FAC species 0 x 3 = 0  FACU species 0 x 4 = 0  UPL species 0 x 5 = 0  Column totals 130 (A) 205 (B)  Prevalence Index = B/A = 1.58   Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is≤3.0*  Morphological adaptations* (provide
= To	otal Cover  Dominant Species Y Y N	Indicator Status FACW	Total % Cover of:  OBL species $55$ x 1 = $55$ FACW species $75$ x 2 = $150$ FAC species $0$ x 3 = $0$ FACU species $0$ x 4 = $0$ UPL species $0$ x 5 = $0$ Column totals $130$ (A) $205$ (B)  Prevalence Index = B/A = $1.58$ Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is≤3.0*  Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	Total % Cover of:  OBL species $55$ x 1 = $55$ FACW species $75$ x 2 = $150$ FAC species $0$ x 3 = $0$ FACU species $0$ x 4 = $0$ UPL species $0$ x 5 = $0$ Column totals $130$ (A) $205$ (B)  Prevalence Index = B/A = $1.58$ Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is≤3.0*  Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	OBL species $\frac{55}{75}$ x 1 = $\frac{55}{150}$ FACW species $\frac{75}{75}$ x 2 = $\frac{150}{150}$ FAC species $\frac{5}{150}$ x 3 = $\frac{5}{150}$ FACU species $\frac{5}{150}$ x 4 = $\frac{5}{150}$ UPL species $\frac{5}{150}$ x 5 = $\frac{5}{150}$ Column totals $\frac{5}{150}$ (A) $\frac{5}{150}$ (B) Prevalence Index = B/A = $\frac{55}{150}$ (B) Prevalence Index is $\frac{5}{150}$ X Rapid test for hydrophytic vegetation $\frac{5}{150}$ X Prevalence index is $\frac{5}{150}$ Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	FACW species
e % [	Dominant Species Y Y	Status FACW	FAC species $0$ $x 3 = 0$ FACU species $0$ $x 4 = 0$ UPL species $0$ $x 5 = 0$ Column totals $130$ $A$ $205$ $B$ Prevalence Index = $BA = 1.58$ Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is $3.0^*$ Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	FAC species $0$ $x 3 = 0$ FACU species $0$ $x 4 = 0$ UPL species $0$ $x 5 = 0$ Column totals $130$ $A$ $205$ $B$ Prevalence Index = $BA = 1.58$ Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is $3.0^*$ Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	FACU species $0$ x 4 = $0$ UPL species $0$ x 5 = $0$ Column totals $130$ (A) $205$ (B) Prevalence Index = B/A = $1.58$ Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is $\leq 3.0^*$ Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	UPL species $0 \times 5 = 0$ Column totals $130 \times 5 = 0$ Prevalence Index = B/A = $1.58 \times 0$ Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is $\le 3.0^*$ Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	Column totals 130 (A) 205 (B)  Prevalence Index = B/A = 1.58  Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	Prevalence Index = B/A = 1.58  Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is≤3.0*  Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	Hydrophytic Vegetation Indicators:  X Rapid test for hydrophytic vegetation  X Dominance test is >50%  X Prevalence index is≤3.0*  Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
e % [	Dominant Species Y Y	Status FACW	X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
	Species Y Y N	Status FACW	X Rapid test for hydrophytic vegetation X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
	Species Y Y N	Status FACW	X Dominance test is >50% X Prevalence index is≤3.0* Morphological adaptations* (provide
  	Y Y N	FACW	X Prevalence index is≤3.0* Morphological adaptations* (provide
 	Y N		Morphological adaptations* (provide
 	N	OBL	
			eunnorting data in Domorke or on a cond
		OBL	_ · · · · · · · · · · · · · · · · · · ·
	N	FACW	sheet)
			Problematic hydrophytic vegetation*
			(explain)
			*Indicators of hydric soil and wetland hydrology must
	-		present, unless disturbed or problematic
— –			Definitions of Vegetation Strata:
			Tree - Woody plants 3 in. (7.6 cm) or more in diametr
			at breast height (DBH), regardless of height.
— –			Sapling/shrub - Woody plants less than 3 in. DBH a
			greater than 3.28 ft (1 m) tall.
= To	otal Cover		Herb - All herbaceous (non-woody) plants, regardles
- 0/	Daniel 1	Locality (	size, and woody plants less than 3.28 ft tall.
r	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
			height.
			Hydrophytic
			vegetation
— <del>_</del>	otal Cover		present? Y
	J. G.		
	* %		e % Dominant Indicator Species Status

								<b>J</b>	
Profile Dose	rintian: (Docarit	sa ta tha	danth nooded to	- docum	ant the	indicator	or confirm the absence	of indicators )	
Depth	'	be to the		lox Feat		indicator	or confirm the absence	of indicators.)	
(Inches)	Matrix Color (moist)	%	Color (moist)	iox Feat	Type*	Loc**	Texture	Remarks	
0-14	10YR 3/1	100	Color (moist)	70	Туре	Loc	silty clay		
0-14	10113/1	100					Silly Clay		
				d Matrix	, CS=Co	vered or	Coated Sand Grains		
	PL=Pore Lining,	ivi=iviati	X					5 11	
Hydric Soil Indicators:    Dark Surface (S7)								(A10) (MLRA 147) rie Redox (A16)(MLRA 147, 148) Floodplain Soils (F19 6, 147) rw Dark Surface (TF12) rain in Remarks	
Restrictive Layer (if observed) Type: Depth (inches):							Hydric soil present? Y		
	summed hydri soil appearai		o strong hydro	ology a	and veg	etative	indicators. Flooding	and sedimentation likely	

Project/Site: Holloway-Knox 138 kV Transmission L	ine City/County: Harris	Report Name Wetland PB-17 Sampling Date 6/07/2018	
Applicant/Owner: FirstEnergy	State: Ohio	Sampling Point: W-mdt-6/07/2018	3-06
Investigator(s) M. Thomayer, T.Qualio; Jacob		nship, Range S24 T11N R5W	
Landform (hillslope, terrace, etc.) terrace	Local relief (concave,	convex, none) concave Slope (%): 1	15
,	at.: 40.375372	Long.: -81.052971 Datum: NAD	83
Soil Map Unit Name CnD - Coshocton silt loam, 15 to 2	<u>5 percent slope</u>	NWI Classification: N/A	
Are climatic/hydrologic conditions of the site typical for t	· ·		
Are vegetatior, soil, or hydrology	significantly distu		
Are vegetatior , soil , or hydrology	naturally problem		ما است مسا
SUMMARY OF FINDINGS		(If needed, explain any answers in re	IIIaik
Hydrophytic vegetation present Yes	la the complete	vers within a westerness. Vers	
Hydric soil present? Yes	is the sampled a	rea within a wetland? Yes	
Wetland hydrology present? Yes			
Remarks:			
Tromano.			
PEM wetland valley in maintained ROW.			
,			
LIVEROLOGY			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two require	ed)
Primary Indicators (minimum of one is required; check a	ıll that apply)	Surface Soil Cracks (B6)	
Surface Water (A1) True A	quatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)	
High Water Table (A2) Hydrog	gen Sulfide Odor (C1)	X Drainage Patterns (B10)	
X Saturation (A3) Oxidize	ed Rhizospheres on Living	Moss Trim Lines (B16)	
Water Marks (B1) Roots		Dry-Season Water Table (C2)	
<del></del>	nce of Reduced Iron (C4)	Crayfish Burrows (C8)	
	t Iron Reduction in Tilled	Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Soils (	C6)	Stunted or Stressed Plants (D1)	
Iron Deposits (B5) Thin M	luck Surface (C7)	X Geomorphic Position (D2)	
Inundation Visible on Aerial Other	(Explain in Remarks)	Shallow Aquitard (D3)	
Imagery (B7)		X Microtopographic Relief (D4)	
Water-Stained Leaves (B9)		X FAC-Neutral Test (D5)	
Aquatic Fauna (B13)			
<u> </u>			
Field Observations:	V 5 4 7 1 3	Watland	
Surface water present? Yes No	X Depth (inches):	Wetland	
Water table present? Yes No	X Depth (inches):	hydrology	
Saturation present? Yes X No (includes capillary fringe)	Depth (inches):	0 present? Y	
(includes capillary filinge)			
Describe recorded data (stream gauge, monitoring well,	aerial photos, previous insi	nections) if availa	
gaage,ege,	acriai priotoc, provious iiio	, oone	
Remarks:			
Saturated throughout			
- Catalata tinoagnost			
1			

							Sampling Point: W-mdt-6/	07/201
							50/20 Thresholds	
Tree Stratum	Plot Size (	30 ft.	)	Absolute %	Dominant	Indicator	20%	50%
Troc Ottatam	1 101 0120 (	00 11.	,	Cover	Species	Status	Tree Stratum 0	0
							Sapling/Shrub Stratum 0	0
							Herb Stratum 27	68
							Woody Vine Stratum 0	0
					<del></del>		Dominance Test Worksheet	
							Number of Dominant	
							Species that are OBL,	
							FACW, or FAC: 1	(A)
							Total Number of Dominant	
					<del></del>		Species Across all Strata: 1	(B)
				=	: Total Cover		Percent of Dominant	
							Species that are OBL,	
apling/Shrub	Plot Size (	15 ft.	)	Absolute %	Dominant	Indicator	FACW, or FAC: 100.00%	<u>6</u> (A/
Stratum	·			Cover	Species	Status		
							Prevalence Index Worksheet	
							Total % Cover of:	
							OBL species 35 x 1 = 35	
							FACW species $100 \times 2 = 200$	<u> </u>
							FACULARISIS 0 x 3 = 0	
							FACU species $0 \times 4 = 0$ UPL species $0 \times 5 = 0$	
							· — — —	
							Prevalence Index = B/A = 1.74	<u> </u>
							r revalence index = D/A = 1.74	_
				0 =	Total Cover			
							Hydrophytic Vegetation Indicators:	
lerb Stratum	Plot Size (	5 ft.	١	Absolute %	Dominant	Indicator	X Rapid test for hydrophytic vegetati	ion
	,	O 11.	,	Cover	Species	Status	X Dominance test is >50%	
Phalaris arundir				100	Y	FACW	X Prevalence index is≤3.0*	
Symplocarpus for	oetidus			20	N	OBL	Morphological adaptations* (provide	
Carex crinita				15	N	OBL	supporting data in Remarks or on	a sep
							sheet)	
							Problematic hydrophytic vegetatio	n*
							(explain)	
							*Indicators of hydric soil and wetland hydrolog	gy mus
							present, unless disturbed or problematic	
					<del></del>		Definitions of Vegetation Strata:	
							Tree - Woody plants 3 in. (7.6 cm) or more in	diame
							at breast height (DBH), regardless of height.	a.a
							Sapling/shrub - Woody plants less than 3 in	DBH
							greater than 3.28 ft (1 m) tall.	
				135 =	Total Cover			
							<b>Herb</b> - All herbaceous (non-woody) plants, re size, and woody plants less than 3.28 ft tall.	gardie
Woody Vine	Plot Size (	30 ft.	١	Absolute %	Dominant	Indicator	oleo, and woody plante loop than oleo it tall	
Stratum	1 101 0126 (	50 It.	,	Cover	Species	Status	Woody vines - All woody vines greater than	3.28 ft
							height.	
					-			
					-		Hydrophytic	
							vegetation	
				0 =	Total Cover		present? Y	

							p-	
Profile Desc	crintion: (Describ	oe to the	denth needed to	a docum	nent the	indicator	or confirm the absence	of indicators )
Depth	Matrix	be to the		lox Fea		iriuicatoi	or committe absence	or indicators.)
(Inches)	Color (moist)	%	Color (moist)	iox rea %	Type*	Loc**	Texture	Remarks
0-14	10YR 4/1	90	10YR 3/4	10	С	M	silty clay	
0-14	10114 4/1	90	101R 3/4	10		IVI	Silly clay	
· ·	•	•	-	d Matrix	, CS=Co	vered or	Coated Sand Grains	
**Location:	PL=Pore Lining,	M=Matr	ix					
Hydric Soil	Indicators:						Indicators for I	Problematic Hydric Soils:
I Badaal	(4.4)		Dark St	,	,	· (C0)	O M	(A40) (B4) D A 447)
Histisol	` '		•		w Surfac	e (58)		(A10) ( <b>MLRA 147)</b> ie Redox (A16) <b>(MLRA 147, 148)</b>
	Histic Epipedon (A2)  Black Histic (A3)  (MLRA 147, 148)  Thin Dark Surface (S9)							loodplain Soils (F19
Hydrogen Sulfide (A4) (MLRA 147, 148) (MLRA 136, 147)								
, ,	d Layers (A5)				Matrix (F	2		w Dark Surface (TF12
	uck (A10) <b>(LRR I</b>	N)	X Deplete			_		ain in Remarks
	ed Below Dark Su	,			,	3)		
Thick D	ark Surface (A12	<u>)</u>	Deplete	d Dark	Surface	(F7)		
Sandy I	Mucky Mineral (S	31)	Redox I	Depress	sions (F8	()		
-	, MLŘA 147, 148						LRR N, MLRA 136)	
	Gleyed Matrix (S				(F13)(N			
	Redox (S5)	•					MLRÁ 148)	
Stripped	d Matrix (S6)		Red Pa	rent Ma	terial (F2	21) <b>(MLR</b>	A 127, 147)	
*Indicators	of hydrophytic ve	egetation	and wetland hy	drology	must be	present	, unless disturbed or pro	hlem
maioatoro	or riyaropriyas ve	gotatioi	and Wolland III	ar clogy	madi bo	Procent	, arnood diotarboa or pro	
Restrictive I	Layer (if observe	d)						
Type:	, ,	,					Hydric soil preser	nt? Y
Depth (inch	es):				-		,	
Remarks:								

Paris at/Cites Hallaness Keeps 400 IA/ Transprission I	City/Oscorton Hamisean	Report Name Wetland PB-18
Project/Site: Holloway-Knox 138 kV Transmission L		Sampling Date 6/07/2018
Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, T.Qualio; Jacobs	State: Ohio Section, Township, Ra	Sampling Point: W-mdt-6/07/2018-05
Landform (hillslope, terrace, etc.) terrace	Local relief (concave, convex, i	
Subregion (LRR or MLRA): LRR N La		-81.053009 Datum: NAD 83
Soil Map Unit Name CnD - Coshocton silt loam, 15 to 2		VI Classification: R4SBC
Are climatic/hydrologic conditions of the site typical for the	nis time of the yea Yes X	No(If no, explain in remarks
Are vegetatior, soilX, or hydrology	X significantly disturbed?	Are "normal circumstances" Yes
Are vegetatior, soil, or hydrology	naturally problematic	present?
OLIMAN DV OF FINDINGS		(If needed, explain any answers in remark
SUMMARY OF FINDINGS		
Hydrophytic vegetation present Yes	le the governed area with:	n a watlands Vaa
Hydric soil present? Yes	Is the sampled area withi	n a wetland? Yes
Wetland hydrology present? Yes		
Remarks:	-	
PEM wetland in stream valley in maintained F	OW Recently impacted by nin	eline construction
T Elvi Welland in Stream valley in maintained i	TOVV. Recently impacted by pip	cime construction.
HYDROLOGY		
Wetland Hydrology Indicators:	Secon	dary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check a		rface Soil Cracks (B6)
		arsely Vegetated Concave Surface (B8)
<del></del>	· · · · · · · · · · · · · · · · · · ·	ainage Patterns (B10)
	<del></del>	oss Trim Lines (B16)
Water Marks (B1) Roots		y-Season Water Table (C2)
<del></del>	· · ·	ayfish Burrows (C8)
	· /	turation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Soils (		unted or Stressed Plants (D1)
Iron Deposits (B5) Thin M	uck Surface (C7) X Ge	eomorphic Position (D2)
Inundation Visible on Aerial Other	Explain in Remarks) Sh	allow Aquitard (D3)
Imagery (B7)	· · · · · · · · · · · · · · · · · · ·	crotopographic Relief (D4)
Water-Stained Leaves (B9)		.C-Neutral Test (D5)
Aquatic Fauna (B13)	<del>_</del>	
Field Observations:		
Surface water present? Yes No	X Depth (inches):	Wetland
Water table present? Yes No	X Depth (inches):	hydrology
Saturation present? Yes X No	Depth (inches): 0	present? Y
(includes capillary fringe)		
Describe recorded data (stream gauge, monitoring well,	aerial photos previous inspections)	I if availa
become recorded data (etream gaage, memoring weil,	derial prietes, previous inspections),	n avana
Remarks:		
Remarks.		
Optional and the accordance of the control of the c		
Saturated throughout with some surface flow		

				50/20 Thresholds	2018
	Absolute 0/	Dominant	la dia atau		.,
Tree Stratum Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator	20% 50%	%
,	Cover	Species	Status	Tree Stratum 0 0	
				Sapling/Shrub Stratum 0 0	
				Herb Stratum 23 58	
				Woody Vine Stratum 0 0	
				Dominance Test Worksheet Number of Dominant	
				Species that are OBL,	۸.
					A)
				Total Number of Dominant	<b>D</b> \
		<del></del>		Species Across all Strata: 4 (	B)
	0 =	Total Cover		Percent of Dominant	
				Species that are OBL,	
Sapling/Shrub Plot Size ( 15 ft. )	Absolute %	Dominant	Indicator	FACW, or FAC: 100.00% (	A/B)
Stratum	Cover	Species	Status		
				Prevalence Index Worksheet	
				Total % Cover of:	
				OBL species 80 x 1 = 80	
				FACW species $35 \times 2 = 70$	
				FAC species 0 x 3 = 0	
				FACU species 0 x 4 = 0	
	<del></del>			UPL species 0 x 5 = 0	
				Column totals 115 (A) 150 (	B١
				Prevalence Index = B/A = 1.30	,D)
				Trevalence index = B/A = 1.30	
	0 =	Total Cover	-		
		- Total Covol		Hydrophytic Vegetation Indicators:	
	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation	
Herb Stratum Plot Size ( 5 ft. )	Cover	Species	Status	X Dominance test is >50%	
Carex vulpinoidea	30	Y	OBL	X Prevalence index is≤3.0*	
Leersia oryzoides	25	<u> </u>	OBL	Morphological adaptations* (provide	
Carex crinita	15	<u> </u>	OBL	supporting data in Remarks or on a se	nnar
Juncus effusus	15	<u> </u>	FACW	sheet)	spai
	10	<u>r</u>	OBL		
Carex lurida	- <del></del>			Problematic hydrophytic vegetation*	
Impatiens capensis	10	N	FACW	(explain)	
Onoclea sensibilis	10	N	FACW	*Indicators of hydric soil and wetland hydrology m	ust b
				present, unless disturbed or problematic	
			-	Definitions of Vegetation Strata:	
				Tree - Woody plants 3 in. (7.6 cm) or more in diar	neter
				at breast height (DBH), regardless of height.	
				Sapling/shrub - Woody plants less than 3 in. DB	H an
				greater than 3.28 ft (1 m) tall.	
	115 =	Total Cover		Herb - All herbaceous (non-woody) plants, regard	lless
		_		size, and woody plants less than 3.28 ft tall.	
Woody Vine Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator		
Stratum	Cover	Species	Status	Woody vines - All woody vines greater than 3.28	ft in
				height.	
				Hydrophytic	
				vegetation	
	0 =	<ul> <li>Total Cover</li> </ul>		present? Y	
narks: (Include photo numbers here or on a sepa	rate sheet			1	

Depth	Matrix		Redo	Redox Features			Texture	Remarks
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	rexture	Remarks
0-14	10YR 4/1	100					silty clay	
*Type: C=C	oncentration, D=	=Depletion	on, RM=Reduced	Matrix,	CS=Co	vered or	Coated Sand Grains	•
**Location:	PL=Pore Lining,	M=Matı	ix					
Hydric Soi	Indicators:						Indicators for	Problematic Hydric Soils:
			Dark Sur	`	,			
Histisol	` '		Polyvalue			e (S8)		k (A10) ( <b>MLRA 147)</b>
	pipedon (A2)		(MLRA 1	,	,			irie Redox (A16)(MLRA 147, 148)
	listic (A3)		Thin Dark		` ,			Floodplain Soils (F19
	en Sulfide (A4)		(MLRA 1	-	•	_	(MLRA 13	
	d Layers (A5)		Loamy G	•	,	2		ow Dark Surface (TF12)
	uck (A10) (LRR		Depleted			.,	X Other (Ex	olain in Remarks
	ed Below Dark S				,	,		
	ark Surface (A1	,	Depleted		,	'		
-	Mucky Mineral (S		Redox Do	•	` ,		DD N 141 DA 400)	
	l, MLRA 147, 14						LRR N, MLRA 136)	
	Gleyed Matrix (S	4,	Umbric S				MLRA 148)	
	Redox (S5) d Matrix (S6)						MLKA 146) A 127, 147)	
Strippe	u Matrix (30,		Neu Fale	iii iviat	enai (i Z	1)(IVILIX	H 121, 141)	
*Indicators	of hydrophytic ve	egetation	and wetland hvd	roloav i	must be	present	, unless disturbed or pr	oblem
		9					,	
	Layer (if observe	ed)						
Type:							Hydric soil pres	ent? Y
Depth (inch	es):							
Domorko:								
Remarks:								

Project/Site: Holloway-Knox 138 kV Transmission Line C	City/County:	Harrison		Sampling Date: 6			
Applicant/Owner: FirstEnergy	State:	Ohio		· · ·	V-bao-6/11/2018-01		
Investigator(s): M. Thomayer, B.Otto; Jacobs	Section	, Township,	Range: S	S23 T11N R5W			
Landform (hillslope, terrace, etc.): terrace L	ocal relief (con	cave, conve	ex, none	concave	Slope (%):		
<u> </u>	10.363957		ıg.: <u>-</u> 81.0	052631	Datum: NAD 83		
Soil Map Unit Name WnE - Westmoreland-Dekalb complex, 2	25 to 40 percen	nt slopes	NWI Cla	ssification: N/A			
Are climatic/hydrologic conditions of the site typical for this tin				<u>.</u>	plain in remarks		
Are vegetation, soil, or hydrology	significantly	disturbed?		"normal	Yes		
Are vegetatior, soil, or hydrology	naturally pro	oblematic?		ımstances" prese			
			(If ne	eeded, explain a	ny answers in remarks		
SUMMARY OF FINDINGS							
Hydrophytic vegetation present' Yes		_					
Hydric soil present? Yes	Is the samp	oled area w	ithin a w	/etland? Yes	3		
Wetland hydrology present? Yes							
Remarks:							
DEM (I I I I I I I I I I I I I I I I I I I		DOM.					
PEM wetland along stream and pond within valle	y in existing	ROW.					
HYDROLOGY							
Wetland Hydrology Indicators:		Sec	ondary I	ndicators (minim	um of two required)		
Primary Indicators (minimum of one is required; check all that	t apply)		Surface \$	Soil Cracks (B6)			
X Surface Water (A1) True Aquatic I	Plants (B14)		Sparsely Vegetated Concave Surface (B8)				
<del></del>	lfide Odor (C1)	X	X Drainage Patterns (B10)				
	zospheres on Liv			m Lines (B16)			
Water Marks (B1) Roots (C3)	.ospricios on En	•9		son Water Table (	(C2)		
	Reduced Iron (C			yfish Burrows (C8)			
	Reduction in Tille	·	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Soils (C6)				or Stressed Plants			
Iron Deposits (B5) Thin Muck Su	ırface (C7)	X	X Geomorphic Position (D2)				
<del></del>	n in Remarks)		Shallow Aquitard (D3)				
Imagery (B7)	,	X	X Microtopographic Relief (D4)				
Water-Stained Leaves (B9)				utral Test (D5)	7-1)		
Aquatic Fauna (B13)			1 AO NCC	atiai rest (DS)			
Field Observations:							
	Depth (inches):	1		Wetland			
· — — — — — — — — — — — — — — — — — — —	Depth (inches):	2		hydrology			
	Depth (inches):			present?	Υ		
(includes capillary fringe)	λοριτι (πιοπο <b>s</b> ).	U	·   '		<del>'</del>		
(includes capillary filinge)							
Describe recorded data (stream gauge, monitoring well, aeria	al photos, previ	ous inspect	ions), if a	vailable:			
	, ,,	•	,,				
Remarks:							
iveriains.							

Tree Stratum	Plot Size (	30 ft.	Absolute % Cover	Dominant Species	Indicator Status	50/20 Thresholds  Tree Stratum Sapling/Shrub Stratum	20% 0 0	50% 0 0
	Plot Size (	30 ft.	1				0	0
			Cover	Species	Status			
						Sapling/Shrub Stratum	Λ	^
						Herb Stratum	20	50
						Woody Vine Stratum	0	0
						Dominance Test Workshee Number of Dominant	et	
						Species that are OBL,		
							2	(4)
						FACW, or FAC:	3	(A)
						Total Number of Dominant Species Across all Strata:	2	(D)
			0 =	Total Cover		'	3	(B)
			=	i i otal Covel		Percent of Dominant		
Capling/Chrub			Absolute 9/	Dominant	Indicator	Species that are OBL,	100 000	/ (A/D
Sapling/Shrub Stratum	Plot Size (	15 ft.	) Absolute % Cover	Dominant Species	Status	FACW, or FAC:	100.00%	<u>′₀</u> (A/B
Stratum			Cover	Species	Status			
						Prevalence Index Worksho	eet	
						Total % Cover of:		
						OBL species 10 x 1		
						FACW species 70 x 2		
						FAC species 20 x 3		
						FACU species 0 x 4		
						UPL species 0 x 5		
						Column totals 100 (A)	210	(B)
						Prevalence Index = B/A =	2.10	
				Total Cover		Hydrophytic Vegetation In	dicators	
			Absolute %	Dominant	Indicator			ion
Herb Stratum	Plot Size (	5 ft.	) Cover	Species	Status	Rapid test for hydrophyt X Dominance test is >50%		1011
lungua offugua				•		l ——		
Juncus effusus			40	<u>Y</u>	FACW	X Prevalence index is≤3.0		ما م
Impatiens capensis				<u>Y</u>	FACW	Morphological adaptatio		
Euphorbia purpure			20	<u>Y</u>	FAC	supporting data in Rema	arks or on	a sepai
Onoclea sensibilis			10	N	FACW	sheet)		
Carex vulpinoidea			10	N	OBL	Problematic hydrophytic	vegetatio	n*
						(explain)		
						*Indicators of hydric soil and wetla	and hydrolog	gy must b
						present, unless disturbed or probl	ematic	
			_			Definitions of Vegetation S	Strata:	
						Tree - Woody plants 3 in. (7.6 cm		diameter
						breast height (DBH), regardless of	f height.	
						Sapling/shrub - Woody plants le	ss than 3 in.	DBH an
						greater than 3.28 ft (1 m) tall.		
			100 =	Total Cover		Herb - All herbaceous (non-wood		gardless
Woody Vine			Absolute %	Dominant	Indicator	size, and woody plants less than	3.28 ft tall.	
Stratum	Plot Size (	30 ft.	Cover	Species	Status	Woody vinos All woody vinos a	rootor than	2 20 ft in
Ollatain			20101	-500.00	0	Woody vines - All woody vines g height.	reater trian	J.∠O IL IÑ
						<del>g</del>		
							·	
						Hydrophytic		
						vegetation		
			0 =	Total Cover		present? Y		
marks: (Include photo	numbers he	re or on a se	parate shee			1		

SOIL

Sampling Point: W-bao-6/11/2018-01

	Matriv	Matrix Redox Features						<u>_</u> .			
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks			
0-16	10YR 4/2	95	10YR 5/8	5	C	PL	Silty clay				
			10111070				<u>-</u>				
, ,	•		•	ed Matı	rix, CS=C	Covered	or Coated Sand Gra	iins			
	PL=Pore Lining	, M=Ma	trix								
Hydric Soi	I Indicators:				<b>~</b> _\		Indicators f	or Problematic Hydric Soils:			
11:-4:1	1 (04)		Dark St		S7) ow Surfac	20 (89)	O M	(0.4.0) (BM D.A. 4.47)			
Histisol	(A1) Epipedon (A2)		(MLRA			Je (36)		uck (A10) ( <b>MLRA 147)</b> rairie Redox (A16) <b>(MLRA 147, 148)</b>			
	Histic (A3)				ace (S9)			nt Floodplain Soils (F19			
	jen Sulfide (A4)		(MLRA			(MLRA 136, 147)					
	ed Layers (A5)				Matrix (I						
	luck (A10) <b>(LRR</b>	NI)	X Deplete	-		Other (Explain in Remarks)					
	ed Below Dark S				urface (F	(e)	Other (E	explain in Kemarks)			
	Dark Surface (A1		`		Surface	,					
	•	,				. ,					
	Mucky Mineral ( I, MLRA 147, 14				sions (F	,	1 DD N. MI DA 400				
		-			se masse e (F13) <b>(</b> I		(LRR N, MLRA 136)				
	Gleyed Matrix (S	04					36, 122) ) MLRA 148)				
	Redox (S5)										
Strippe	d Matrix (S6)		Red Pa	rent ivia	ateriai (F.	21)(WLR	AA 127, 147)				
*Indicators	of hydrophytic v	egetatio	on and wetland h	ydrolog	gy must b	oe prese	nt, unless disturbed	or problematic			
	Layer (if observe	ed)					Hudria aail mu				
Type:					_		Hydric soil pre	esent? Y			
Jepui (iiici	les).				_						
Remarks:											

Project/Site: Holloway-Knox 138 kV Tran	nsmission Line City/County:	Harrison	Sampling Date: 6				
Applicant/Owner: FirstEnergy		Ohio		V-bao-6/11/2018-03			
Investigator(s): M. Thomayer, B.Otto; Jacob		on, Township, Range		. 200 0/11/2010 00			
Landform (hillslope, terrace, etc.): terrace		oncave, convex, non		Slope (%):			
Subregion (LRR or MLRA) LRR N	Lat.: 40.357577	Long.: <u>-8</u> 1		Datum: NAD 83			
Soil Map Unit Name WnE - Westmoreland-D	ekalb complex, 25 to 40 perce	ent slopes NWI C	lassification: N/A				
Are climatic/hydrologic conditions of the site			(If no, exp	olain in remarks			
Are vegetation, soil, or	hydrologysignificant hydrologynaturally p	tly disturbed? Are	e "normal	Yes			
Are vegetatior, soil, or	hydrologynaturally p		cumstances" prese				
		(If	needed, explain ar	ny answers in remarks			
SUMMARY OF FINDINGS	<del></del>						
Hydrophytic vegetation present' Yes							
Hydric soil present? Yes	Is the sar	npled area within a	wetland? Yes	<u>-</u>			
Wetland hydrology present? Yes							
Remarks:	<u> </u>						
DEM wettend clans streem within a	collection existing DOW						
PEM wetland along stream within v	railey in existing ROW.						
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary	Indicators (minim	um of two required)			
Primary Indicators (minimum of one is require	red; check all that apply)	Surface	e Soil Cracks (B6)				
X Surface Water (A1)	True Aquatic Plants (B14)	Sparse	Sparsely Vegetated Concave Surface (B8)				
X High Water Table (A2)	X Hydrogen Sulfide Odor (C1	) X Draina	age Patterns (B10)				
X Saturation (A3)	Oxidized Rhizospheres on	Living Moss T	Trim Lines (B16)				
Water Marks (B1)	Roots (C3)	•	Season Water Table (C2)				
Sediment Deposits (B2)	Presence of Reduced Iron		rfish Burrows (C8)				
Drift Deposits (B3)	Recent Iron Reduction in T	illed Saturat	ration Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Soils (C6)		nted or Stressed Plants (D1)				
Iron Deposits (B5)	Thin Muck Surface (C7)	X Geomo	norphic Position (D2)				
Inundation Visible on Aerial	Other (Explain in Remarks)		low Aquitard (D3)				
Imagery (B7)			ppographic Relief (D	4)			
Water-Stained Leaves (B9)			eutral Test (D5)	.,			
Aquatic Fauna (B13)							
Field Observations:							
Surface water present? Yes X	No Depth (inches	s): 1	Wetland				
Water table present? Yes X	No Depth (inches	s): 2	hydrology				
Saturation present? Yes X	No Depth (inches		present?	Υ			
(includes capillary fringe)		<u> </u>	_				
Describe recorded data (stream gauge, mon	itoring well, aerial photos, pre	vious inspections), if	available:				
Remarks:							

#### **VEGETATION** - Use scientific names of plants

				50/20 Thresholds
Tree Stratum Plot Size ( 30 ft. )	Absolute	Dominant	Indicator	20% 50%
1100 011010111 1101 0120 (	% Cover	Species	Status	Tree Stratum 0 0
1				Sapling/Shrub Stratum 0 0
2				Herb Stratum 20 50
3				Woody Vine Stratum 0 0
4	·			
5				Dominance Test Worksheet
6				Number of Dominant
7				Species that are OBL,
8				FACW, or FAC: 3 (A)
9				Total Number of Dominant
10				Species Across all Strata: 3 (B)
	0	= Total Cover		``
		- Total Cover		Percent of Dominant
				Species that are OBL,
Sapling/Shrub Plot Size ( 15 ft. )	Absolute	Dominant	Indicator	FACW, or FAC: <u>100.00%</u> (A/B)
Stratum	% Cover	Species	Status	
1				Prevalence Index Worksheet
2				Total % Cover of:
3	· <del></del>			OBL species 30 x 1 = 30
4	· <del></del>			FACW species 60 x 2 = 120
5	· -			FAC species 10 x 3 = 30
6	· <del></del>			FACU species 0 x 4 = 0
7	<del></del>			
· ·	· <del></del>			
8				Column totals 100 (A) 180 (B)
9				Prevalence Index = B/A = 1.80
10				
	0	<ul> <li>Total Cover</li> </ul>		H. L. J. C. V. J. C. J. P. J.
				Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft. )	Absolute	Dominant	Indicator	X Rapid test for hydrophytic vegetation
, , , , , , , , , , , , , , , , , , , ,	% Cover	Species	Status	X Dominance test is >50%
1 Leersia oryzoides	20	Y	OBL	X Prevalence index is≤3.0*
2 Impatiens capensis	20	Υ	FACW	Morphological adaptations* (provide
3 Juncus effusus	20	<u> </u>	FACW	supporting data in Remarks or on a
4 Onoclea sensibilis	10	N	FACW	separate sheet)
5 Carex lurida	10	N	OBL	Problematic hydrophytic vegetation*
6 Carex cristatella	10	N	FACW	(explain)
7 Euphorbia purpurea	10	N	FAC	*Indicators of hydric soil and wetland hydrology must
8			170	be present, unless disturbed or problematic
9	· <del></del>			be present, unless disturbed or problematic
	· <del></del>			Definitions of Venetation Constan
10	· <del></del>			Definitions of Vegetation Strata:
11				Tree - Woody plants 3 in. (7.6 cm) or more in
12	. <u></u>			diameter at breast height (DBH), regardless of height.
13	. <u></u>			Sapling/shrub - Woody plants less than 3 in. DBH
14	. <u></u>			and greater than 3.28 ft (1 m) tall.
15				3 3 3 3 3 3 3 3
	100	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
				of size, and woody plants less than 3.28 ft tall.
Woody Vine Plot Size ( 30 ft. )	Absolute	Dominant	Indicator	, ,,
Stratum Plot Size ( 30 it. )	% Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
1		•		height.
2				
3				
,				Hydrophytio
	· <del></del>			Hydrophytic
5				vegetation
	0	<ul> <li>Total Cover</li> </ul>		present? Y
Remarks: (Include photo numbers here or on a sep	arate sheet			

Sampling Point: W-bao-6/11/2018-0

I JEDIO .	Matrix		Poo	lox Fea	tures				<u>_</u>		
Depth (Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Т	exture	Remarks		
0-16	10Y 3/1	100	Total (many		1		Silty cl	av			
								7			
	concentration, D	•	•	ed Matr	ix, CS=0	Covered	or Coate	d Sand Grains			
	PL=Pore Lining	, M=Ma	trix								
Hydric Soi	I Indicators:		Dork C	urfood (	C7\		I.	ndicators for F	Problematic Hydric Soils:		
Histisol	(A1)		Dark Si		ວ <i>າ )</i> w Surfad	ce (S8)		2 cm Muck /	(A10) ( <b>MLRA 147)</b>		
	pipedon (A2)		(MLRA			00 (00)	_		e Redox (A16) <b>(MLRA 147, 148)</b>		
	listic (A3)				ace (S9)	)	_		oodplain Soils (F19		
	en Sulfide (A4)		(MLRA			(MLRA 136, 147)					
Stratifie	d Layers (A5)		Loamy	Gleyed	Matrix (	F2) Very Shallow Dark Surface (TF12)					
	uck (A10) (LRR		Deplete	ed Matri	x (F3)	Other (Explain in Remarks)					
	ed Below Dark S		·		urface (F	,					
Thick D	ark Surface (A1	2)	Deplete	ed Dark	Surface	(F7)					
Sandy I	Mucky Mineral (	S1)	Redox	Depres	sions (F	8)					
(LRR N	I, MLRA 147, 14	l8)	Iron-Ma	inganes	se Masse	es (F12)	LRR N, I	VILRA 136)			
	Gleyed Matrix (S	64			· / •	MLRA 1					
	Redox (S5)						) MLRA 1				
Strippe	d Matrix (S6)		Red Pa	rent Ma	aterial (F	21) <b>(MLR</b>	RA 127, 1	47)			
*Indicators	of hydrophytic v	egetatio	on and wetland h	ydrolog	gy must t	be prese	nt, unless	s disturbed or p	roblematic		
Restrictive	Layer (if observe	ed)									
Type:					_		Hyd	ric soil presen	it? <u>Y</u>		
Depth (inch	es):				_						
Remarks:											

					•	Wetland PB-21	
Project/Site: Holloway-Knox 138 kV Tra	ansmission Line		Harrison		Sampling Date:		
Applicant/Owner: FirstEnergy		State:			Sampling Point	W-bao-6/11/2018-02	
Investigator(s): M. Thomayer, B.Otto; Jaco	obs				S23 T11N R5W		
Landform (hillslope, terrace, etc.): terrace		Local relief (co				Slope (%):	
Subregion (LRR or MLRA) LRR N Soil Map Unit Name WnE - Westmoreland-	Lat.:	40.356249		ng.: <u>-81.0</u>	ssification: N/A	Datum: NAD 83	
	•			INVVI Cia			
Are climatic/hydrologic conditions of the sit	te typical for this	time of the year	Yes	<u>X</u> No _	(If no, e	explain in remarks	
	r hydrology		y disturbed?		'normal	Yes	
Are vegetatior, soil, o	r hydrology	naturally p	roblematic?		mstances" pre		
				(If ne	eded, explain	any answers in remar	
SUMMARY OF FINDINGS							
Hydrophytic vegetation present' Yes							
Hydric soil present? Yes	_	Is the sam	pled area w	vithin a w	etland? Y	es	
Wetland hydrology present? Yes	_						
Remarks:							
remarks.							
PEM wetland along stream within	vallev in exist	tina ROW.					
	, , , , , , , , , , , , , , , , , , , ,						
HYDROLOGY							
Wetland Hydrology Indicators:			Co		adiaatana (maini	manusa of true required)	
Primary Indicators (minimum of one is requ	uirodu obook oll th	ot apply)	360	-		mum of two required)	
· ·		,		•	Soil Cracks (B6)		
X Surface Water (A1)		quatic Plants (B14) Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)	Hydrogen S	Sulfide Odor (C1)	<u>X</u>	_	Patterns (B10)		
X Saturation (A3)	Oxidized Rh	nizospheres on L	iving	_Moss Trii	m Lines (B16)		
Water Marks (B1)	Roots (C3)			-	on Water Table	e (C2)	
Sediment Deposits (B2)		nce of Reduced Iron (C4) Crayfish Burrows (C8)					
Drift Deposits (B3)		t Iron Reduction in Tilled Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)	Soils (C6)	•					
Iron Deposits (B5)		Muck Surface (C7) X Geomorphic Position (D2)					
Inundation Visible on Aerial	Other (Expl	ain in Remarks)		Shallow A	Aquitard (D3)		
Imagery (B7)				-	ographic Relief	(D4)	
Water-Stained Leaves (B9)			X	FAC-Neu	itral Test (D5)		
Aquatic Fauna (B13)							
Field Observations:							
Surface water present? Yes X	No	Depth (inches)	: 1	_   \	Vetland		
Water table present? Yes	No X	Depth (inches)		_	nydrology		
Saturation present? Yes X	No	Depth (inches)	: surface	_   F	oresent?	<u>Y</u>	
(includes capillary fringe)							
Describe recorded data (stream gauge, mo	onitoring well ac	rial photos prov	inus inened	tions) if a	vailable:		
Describe recorded data (stream gauge, mo	ornitoring well, ae	riai priotos, prev	nous mapeci	110115), 11 a	valiable.		
Remarks:							

50/20 Thresholds
20% 50%
Tree Stratum 0 0
Sapling/Shrub Stratum 0 0
Herb Stratum 22 55
Woody Vine Stratum 0 0
Dominance Test Worksheet
Number of Dominant
Species that are OBL,
FACW, or FAC: 2(A)
Total Number of Dominant
Species Across all Strata: 2 (B)
Percent of Dominant
Species that are OBL,
FACW, or FAC: 100.00% (A/B
Dravelance Index Westebact
Prevalence Index Worksheet
Total % Cover of:
OBL species <u>55</u> x 1 = <u>55</u>
FACW species 45 x 2 = 90
FAC species 10 x 3 = 30
FACU species 0 x 4 = 0
UPL species 0 x 5 = 0
Column totals 110 (A) 175 (B)
Prevalence Index = B/A = 1.59
-
Hadaankada Vanatadan ladiaataa
Hydrophytic Vegetation Indicators
X Rapid test for hydrophytic vegetation
X Dominance test is >50%
X Prevalence index is≤3.0*
Morphological adaptations* (provide
supporting data in Remarks or on a separ
sheet)
Problematic hydrophytic vegetation*
(explain)
*Indicators of hydric soil and wetland hydrology must b
present, unless disturbed or problematic
Definitions of Vegetation Strata:
<ul> <li>Tree - Woody plants 3 in. (7.6 cm) or more in diameter</li> <li>breast height (DBH), regardless of height.</li> </ul>
Sapling/shrub - Woody plants less than 3 in. DBH and
greater than 3.28 ft (1 m) tall.
Herb - All herbaceous (non-woody) plants, regardless
size, and woody plants less than 3.28 ft tall.
Woody vines - All woody vines greater than 3.28 ft in
height.
-
-
Hydrophytic
vegetation
present? Y

Profile Des	e Description: (Describe to the depth needed to document the indica							irm the absen	ce of indicators.)	
Depth (Inches)	Matrix Color (moist)	%	1	ox Feature				exture	Remarks	
0-16	10YR 4/1	100	00101 (1110101)	/0 . ,	ypc	200	Silty cla	av/		
0 10	1011( 4/ 1	100	<del>                                     </del>		$\dashv$		Only on	ду		
			<del>                                     </del>	-+	$\rightarrow$					
			<del>                                     </del>	-	$\rightarrow$					
			<del>                                     </del>		-					
			<del>                                     </del>		$\rightarrow$					
			<del>                                     </del>	-	$\neg$					
			<u> </u>							
			<u> </u>							
			1							
	Concentration, Description PL=Pore Lining	•	tion, RM=Reduced trix	d Matrix, (	CS=C	Covered	or Coated	Sand Grains		
	Hydric Soil Indicators: Indicators for Problematic Hydric Soils:									
Histisol Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I (LRR N Sandy I Strippe	-						 <u>}</u> LRR N, N 36, 122) ) MLRA 1 2A 127, 14	2 cm Muck Coast Prair Piedmont F (MLRA 136 Very Shallo Other (Expl	(A10) (MLRA 147) rie Redox (A16)(MLRA 147, 148) Floodplain Soils (F19 6, 147) ow Dark Surface (TF12) lain in Remarks)	
Restrictive Layer (if observed) Type: Depth (inches):						Hydric soil present? Y				
Remarks: Soils as	ssumed hydrid	c due t	to strong vegeta	ative an	ıd hy	drologi	c indicat	tors.		

Project/Site: Holloway-Knox 138 kV Transmission Line Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, B.Otto; Jacobs Landform (hillslope, terrace, etc.) terrace Subregion (LRR or MLRA): LRR N Lat.: Soil Map Unit Name WmE - Westmoreland-Coshocton co Are climatic/hydrologic conditions of the site typical for this Are vegetatior , soil , or hydrology Are vegetatior , soil , or hydrology	State: Ohio Section, Town Local relief (concave, of the description of	Sampling Point: W-mdt-6/12/2018-01           Iship, Range         S22 T11N R5W           convex, none;         concave         Slope (%):           Long.:         -81.054744         Datum: NAD 83           ope         NWI Classification:         N/A           X         No         (If no, explain in remarks bed?           Are "normal circumstances"         Yes				
SUMMARY OF FINDINGS						
Hydrophytic vegetation present' Hydric soil present? Wetland hydrology present? Yes Yes	Is the sampled ar	rea within a wetland? Yes				
PEM wetland at toe of slope in maintained RON	<b>v</b>					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all	that apply)	Surface Soil Cracks (B6)				
Surface Water (A1) True Aqu	uatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2) Hydroge	n Sulfide Odor (C1)	X Drainage Patterns (B10)				
X Saturation (A3) Oxidized	Rhizospheres on Living	Moss Trim Lines (B16)				
Water Marks (B1) Roots (C	· •					
Sediment Deposits (B2) Presence	e of Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3) Recent I	Iron Reduction in Tilled Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4) Soils (C6	<b>;</b> )	Stunted or Stressed Plants (D1)				
Iron Deposits (B5) X Thin Muc	ck Surface (C7)	X Geomorphic Position (D2)				
Inundation Visible on Aerial Other (E.	xplain in Remarks)	Shallow Aquitard (D3)				
Imagery (B7)		X Microtopographic Relief (D4)				
Water-Stained Leaves (B9)		X FAC-Neutral Test (D5)				
Aquatic Fauna (B13)		_				
Field Observations:						
Surface water present? Yes No X	Depth (inches):	Wetland				
Water table present? Yes No X	Depth (inches):	hydrology				
Saturation present? Yes X No	Depth (inches): 0	present? Y				
(includes capillary fringe)						
Describe recorded data (stream gauge, monitoring well, a	erial photos, previous insp	ections), if availa				
Remarks:						
Saturated throughout with some surface flow						

				50/20 Thresholds
	A l l 4 - 0/	Daminant	la dia atau	
Tree Stratum Plot Size ( 30 ft. )	Absolute %	Dominant	Indicator	20% 50%
,	Cover	Species	Status	Tree Stratum 0 0
				Sapling/Shrub Stratum 0 0
				Herb Stratum 35 88
				Woody Vine Stratum 0 0
				Dominance Test Worksheet
				Number of Dominant
				Species that are OBL,
				FACW, or FAC: 1 (A)
				Total Number of Dominant
		<del></del>		Species Across all Strata: 2 (B)
		Total Cover		Percent of Dominant
				Species that are OBL,
Sapling/Shrub Plot Size ( 15 ft. )	Absolute %	Dominant	Indicator	FACW, or FAC: <u>50.00%</u> (A/B)
Stratum	Cover	Species	Status	
				Prevalence Index Worksheet
				Total % Cover of:
				OBL species 70 x 1 = 70
				FACW species 25 x 2 = 50
				FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
				Column totals 95 (A) 120 (B)
				Prevalence Index = $B/A = 1.26$
	0 =	Total Cover		
				Hydrophytic Vegetation Indicators:
Herb Stratum Plot Size ( 5 ft. )	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation
,	Cover	Species	Status	Dominance test is >50%
Poa sp.	80	Y		X Prevalence index is≤3.0*
Carex vulpinoidea	30	Y	OBL	Morphological adaptations* (provide
Scirpus atrovirens	20	N	OBL	supporting data in Remarks or on a separ
Impatiens capensis	15	N	FACW	sheet)
Symplocarpus foetidus	10	N	OBL	Problematic hydrophytic vegetation*
Carex lurida	10	N	OBL	(explain)
Onoclea sensibilis	10	N	FACW	*Indicators of hydric soil and wetland hydrology must b
				present, unless disturbed or problematic
				Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH an
				greater than 3.28 ft (1 m) tall.
	175 =	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
Woody Vine	Absolute %	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
Stratum Plot Size ( 30 ft. )	Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
		-1		height.
				Hydrophytic
				vegetation
	=	<ul> <li>Total Cover</li> </ul>		present? Y
marks: (Include photo numbers here or on a separ	ate sheet			1

								g
Profile Desc	eription: (Describ	na ta the	danth needed to	o docum	ant the	indicator	or confirm the absence	of indicators )
Depth	Matrix	De to trie		dox Feat		Mulcalui		<b>'</b>
(Inches)	Color (moist)	%	Color (moist)	% %	Type*	Loc**	Texture	Remarks
0-12	10YR 3/1	100	Color (moist)	70	Турс		silty clay	
0 12	10111 0/1	100					only oldy	
	oncentration, D= PL=Pore Lining,	•		d Matrix	, CS=Co	vered or	Coated Sand Grains	
		ivi=iviati	IX .				In diagtons for I	Dualdamentia Ukuduia Caila.
Hydric Soil Indicators:    Dark Surface (S7)							(A10) (MLRA 147) ie Redox (A16)(MLRA 147, 148) Floodplain Soils (F19 6, 147) ow Dark Surface (TF12) ain in Remarks	
Restrictive Layer (if observed) Type: Depth (inches):					Hydric soil present? Y			
Remarks:  Soils assumed hydric due to strong vegetative and hydrologic indicators.								

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Holloway-Knox 138 kV Transmission Line		Report Name Wetland PB-23 Sampling Date 6/12/2018
Applicant/Owner: FirstEnergy	State: Ohio	Sampling Point: W-mdt-6/12/2018-02
Investigator(s) M. Thomayer, B.Otto; Jacobs		, Range S22 T11N R5W
Landform (hillslope, terrace, etc.) terrace	Local relief (concave, conv	
Subregion (LRR or MLRA): LRR N Lat.: Soil Map Unit Name WmE - Westmoreland-Coshocton co		ng.: -81.055453 Datum: NAD 83 NWI Classification: N/A
Are climatic/hydrologic conditions of the site typical for this	s time of the yea Yes	X No (If no, explain in remarks
Are vegetation , soil , or hydrology	significantly disturbed?	
Are vegetatior , soil , or hydrology	naturally problematic	present? (If needed, explain any answers in remark:
SUMMARY OF FINDINGS		
Hydrophytic vegetation present Yes Hydric soil present? Yes	Is the sampled area v	vithin a wetland? Yes
Wetland hydrology present? Yes_		
Remarks:  PEM wetland at toe of slope in maintained ROV	V.	
HYDROLOGY		
Wetland Hydrology Indicators:		econdary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all	that apply)	Surface Soil Cracks (B6)
X Surface Water (A1) True Aqu	atic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogel	n Sulfide Odor (C1)	Drainage Patterns (B10)
	Rhizospheres on Living	Moss Trim Lines (B16)
Water Marks (B1) Roots (C		Dry-Season Water Table (C2)
<u> </u>	e of Reduced Iron (C4)	Crayfish Burrows (C8)
<del></del>	on Reduction in Tilled	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Soils (C6		Stunted or Stressed Plants (D1)
<del></del> `		Geomorphic Position (D2)
	xplain in Remarks)	Shallow Aquitard (D3)
		Microtopographic Relief (D4)
Imagery (B7) Water-Stained Leaves (B9)	_	FAC-Neutral Test (D5)
` '	_^	_ FAC-Neutral Test (D5)
Aquatic Fauna (B13)		
Field Observations:		
Surface water present? Yes X No	Depth (inches): 1	_ Wetland
	Depth (inches):	hydrology
Saturation present? Yes X No	Depth (inches): 0	present?Y
(includes capillary fringe)		
Describe recorded data (stream gauge, monitoring well, a	erial photos, previous inspectio	uns) if availa
gauge, memering wen, a	onal photos, provided inspectio	noj, ii avana
Remarks:		
Saturated throughout with some surface flow/in	undation	

Absolute % Cover	Dominant Species  Total Cover  Dominant Species	Indicator Status	20%   50%
Cover	Species  Total Cover  Dominant	Status	Tree Stratum         0         0           Sapling/Shrub Stratum         0         0           Herb Stratum         25         63           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,           FACW, or FAC:         3         (A)           Total Number of Dominant         Species Across all Strata:         3         (B)
0 =	= Total Cover		Sapling/Shrub Stratum         0         0           Herb Stratum         25         63           Woody Vine Stratum         0         0           Dominance Test Worksheet           Number of Dominant         Species that are OBL,           FACW, or FAC:         3         (A)           Total Number of Dominant         Species Across all Strata:         3         (B)
0 =	= Total Cover	Indicator	Herb Stratum 25 63 Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across all Strata: 3 (B)
0 =	= Total Cover	Indicator	Woody Vine Stratum 0 0  Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across all Strata: 3 (B)
0 =	Dominant	Indicator	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across all Strata: 3 (B)
0 =	Dominant	Indicator	Number of Dominant Species that are OBL, FACW, or FAC: Total Number of Dominant Species Across all Strata: 3 (B)
0 =	Dominant	Indicator	Number of Dominant Species that are OBL, FACW, or FAC: Total Number of Dominant Species Across all Strata: 3 (B)
Absolute %	Dominant	Indicator	Species that are OBL, FACW, or FAC:  Total Number of Dominant Species Across all Strata:  3 (B)
Absolute %	Dominant	Indicator	FACW, or FAC: 3 (A) Total Number of Dominant Species Across all Strata: 3 (B)
Absolute %	Dominant	Indicator	Total Number of Dominant Species Across all Strata: 3 (B)
Absolute %	Dominant	Indicator	Species Across all Strata:3 (B)
Absolute %	Dominant	Indicator	· · /
Absolute %	Dominant	Indicator	
		Indicator	Species that are OBL,
			FACW, or FAC: 100.00% (A/B
	Opooloo	Status	1 ACW, 01 1 AC. 100.00% (A/B
		Otatas	Decombance Index Westerbeet
			Prevalence Index Worksheet
			Total % Cover of:
			OBL species 80 x 1 = 80
			FACW species $45 \times 2 = 90$
			FAC species 0 x 3 = 0
			FACU species 0 x 4 = 0
			UPL species $0 \times 5 = 0$
			Column totals 125 (A) 170 (B)
			Prevalence Index = B/A = 1.36
	Total Cavas		
=	= Total Cover		Hydrophytic Vegetation Indicators:
Absolute %	Dominant	Indicator	
			X Rapid test for hydrophytic vegetation X Dominance test is >50%
	•		X Prevalence index is≤3.0*
			Morphological adaptations* (provide
			supporting data in Remarks or on a separ
			sheet)
			Problematic hydrophytic vegetation*
			(explain)
5	N	OBL	*Indicators of hydric soil and wetland hydrology must b
			present, unless disturbed or problematic
			Definitions of Vegetation Strata:
			Tree - Woody plants 3 in. (7.6 cm) or more in diamete
			at breast height (DBH), regardless of height.
			Sapling/shrub - Woody plants less than 3 in. DBH ar
			greater than 3.28 ft (1 m) tall.
125	Total Cover		Herb - All herbaceous (non-woody) plants, regardless
Absolute %	Dominant	Indicator	size, and woody plants less than 3.28 ft tall.
			Woody vines - All woody vines greater than 3.28 ft in
2010.	5,50,00	2.2.00	height.
			Hydrophytic
			vegetation
0 =	<ul> <li>Total Cover</li> </ul>		present? Y
	Absolute %	Absolute %	Absolute %

								<b>g</b>
Profile Door	······································	- +- +b-	م مادماند التسادات	مريم		!!:otor	the channe	-firedicators \
Depth	ription: (Descrit Matrix	e to the	_	o docum lox Fea		indicator	or confirm the absence	<b>,</b>
(Inches)	Color (moist)	%	Color (moist)	ox rea %	Type*	Loc**	Texture	Remarks
0-14	10YR 4/1	98	10YR 3/3	2	С	PL	silty clay	
0 14	101111	- 50	10111 0/0		<u> </u>		only oldy	
· ·	•		•	I Matrix	i, CS=Co	vered or	Coated Sand Grains	
	<u> </u>	M=Matr	X					
**Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Histisol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  2 cm Muck (A10) (LRR N)  Depleted Below Dark Surface (A11  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  *Indicators of hydrophytic vegetation and wetland hydrology must be						6) (F7) ) s (F12) ↓ MLRA 13 iils (F19) 21)(MLRA	2 cm Muck Coast Prairi Piedmont F (MLRA 136) Very Shallo Other (Expl.  LRR N, MLRA 136) 6, 122) MLRA 148) A 127, 147)	w Dark Surface (TF12
Restrictive I Type: Depth (inch	_ayer (if observe	d)			<u>-</u> -		Hydric soil preser	nt? <u>Y</u>
Remarks:								

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Holloway-Knox 138 kV Transmission Lin Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, B.Otto; Jacobs Landform (hillslope, terrace, etc.) terrace Subregion (LRR or MLRA): LRR N Lat Soil Map Unit Name RCB - Richland silt loam, 2 to 6 pero Are climatic/hydrologic conditions of the site typical for th Are vegetatior , soil , or hydrology Are vegetatior , soil , or hydrology SUMMARY OF FINDINGS	State: Ohio Section, Town Local relief (concave, of the description of	Sampling Point: W-mdt-6/12/2018-03
Hydrophytic vegetation present' Hydric soil present? Wetland hydrology present? Yes Yes	Is the sampled ar	ea within a wetland? Yes
PEM wetland at toe of slope and adjacent to in	ntermittent stream in ma	iintained ROW.
High Water Table (A2)  X Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Hydroge  X Roots (6)  Presence  Recent  Soils (C)  Iron Deposits (B5)	quatic Plants (B14) en Sulfide Odor (C1) d Rhizospheres on Living C3) ce of Reduced Iron (C4) Iron Reduction in Tilled	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)  X Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)  X Geomorphic Position (D2) Shallow Aquitard (D3) X Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:  Surface water present? Yes X No Water table present? Yes No Saturation present? Yes X No (includes capillary fringe)  Describe recorded data (stream gauge, monitoring well, and the stream gauge)	Depth (inches): 1  X Depth (inches): 0  Depth (inches): 0  aerial photos, previous insp	hydrology present? Y
Remarks: Saturated throughout with some surface flow/ii	nundation. Likely receiv	es flood water periodically.

	E0/20 Threeholds
Al 14 0/ D : 4	50/20 Thresholds
Plot Size ( 30 ff )	ndicator 20% 50%
Cover Species	Status Tree Stratum 0 0
	Sapling/Shrub Stratum 0 0
	Herb Stratum 27 68
	Woody Vine Stratum 0 0
	Dominance Test Worksheet  Number of Dominant
	Species that are OBL, FACW, or FAC: 2 (A)
	Total Number of Dominant
	Species Across all Strata: 2 (B)
0 = Total Cover	<del></del> ''
	Percent of Dominant
Absolute 0/ Deminent I	Species that are OBL,
Plot Size ( 15 ft. )	ndicator FACW, or FAC: 100.00% (A/B
Cover Species	Status
	Prevalence Index Worksheet
	Total % Cover of:
	OBL species <u>85</u> x 1 = <u>85</u>
	FACW species 50 x 2 = 100
	FAC species0 x 3 =0
	FACU species 0 x 4 = 0
	UPL species 0 x 5 = 0
	Column totals 135 (A) 185 (B)
	Prevalence Index = B/A =1.37
0 = Total Cover	Hydrophytic Vegetation Indicators
Absolute 0/ Deminent	Hydrophytic Vegetation Indicators:
Plot Size ( 5 ft )	Addition X Rapid test for hydrophytic vegetation
Cover Species	Status X Dominance test is >50%
noidea <u>55 Y</u>	OBL X Prevalence index is ≤3.0*
	OBL Morphological adaptations* (provide supporting data in Remarks or on a sepa
<u>15 N</u> — apensis 15 N	FACW supporting data in Remarks of on a sepa
nsibilis 10 N	FACW Problematic hydrophytic vegetation*
perfoliatum 10 N	FACW (explain)
perioliatum 10 N	` ' '
	*Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic
	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diamete
	at breast height (DBH), regardless of height.
	Sapling/shrub - Woody plants less than 3 in. DBH at
405 T-1-10-	greater than 3.28 ft (1 m) tall.
<u>135</u> = Total Cover	<b>Herb</b> - All herbaceous (non-woody) plants, regardless size, and woody plants less than 3.28 ft tall.
Plot Size ( 30 ft. ) Absolute % Dominant I	ndicator
Cover Species	Status Woody vines - All woody vines greater than 3.28 ft in
	height.
	Hydrophytic
	vegetation
e Total Cover	present? Y
	vegetation

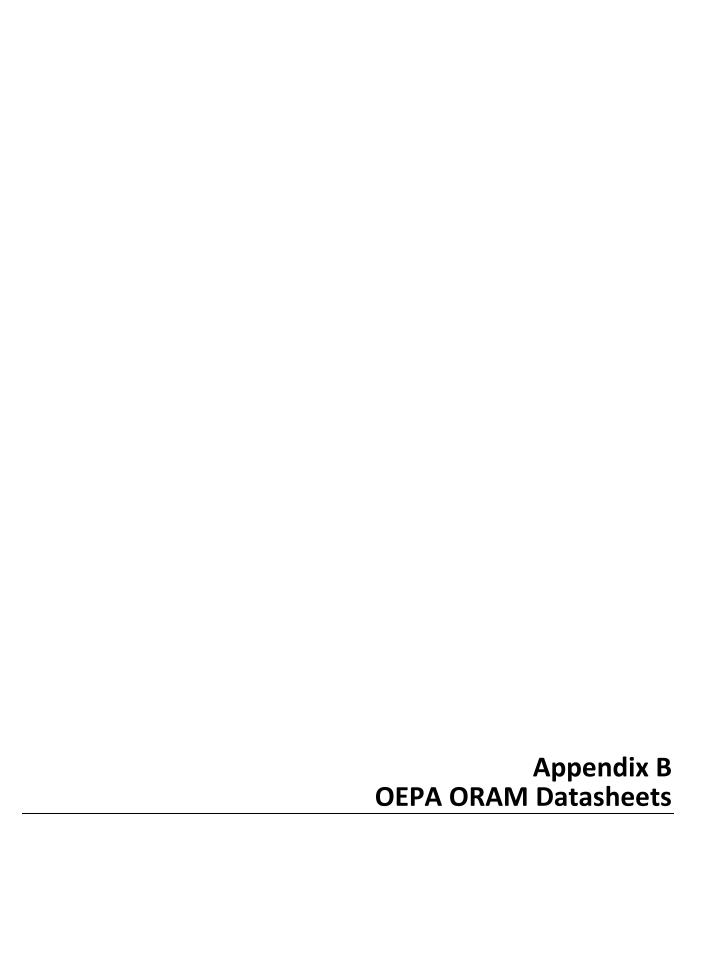
							Janip	ming i onit. vv-mat-0/12/2010-03
Profile Desc	cription: (Describ	e to the	depth needed to	o docum	nent the	indicator	or confirm the absence	of indicators.)
Depth	Matrix		Red	lox Feat	tures		Texture	Remarks
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Nemarks
0-14	10YR 4/1	85	10YR 4/4	15	С	PL/M	Sandy clay	
, ·			-	d Matrix	, CS=Co	overed or	Coated Sand Grains	l .
		M=Matr	X					
**Location: PL=Pore Lining, M=Matrix  Hydric Soil Indicators:  Histisol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11 Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4 Sandy Redox (S5) Stripped Matrix (S6)  *Indicators of hydrophytic vegetation and wetland hydrology must be						F2 (F7; 3) es (F12) ↓ MLRA 13 bils (F19) 21)(MLRA	2 cm Muck Coast Prair Piedmont F (MLRA 136) Very Shallo Other (Exp  LRR N, MLRA 136) 66, 122) MLRA 148) A 127, 147)	ow Dark Surface (TF12 lain in Remarks
Restrictive I Type: Depth (inch	Layer (if observe	d)					Hydric soil prese	nt? Y
Remarks:								

## WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Holloway-Knox 138 kV Transmission Applicant/Owner: FirstEnergy Investigator(s) M. Thomayer, B.Otto; Jacobs Landform (hillslope, terrace, etc.) terrace Subregion (LRR or MLRA): LRR N Soil Map Unit Name Or - Orrville silt loam, 0 to 3 perce Are climatic/hydrologic conditions of the site typical for Are vegetatior , soil , or hydrolog Are vegetatior , soil , or hydrolog SUMMARY OF FINDINGS	State: Ohio Section, Town Local relief (concave, 40.328459 ent slopes, occasionally flooder this time of the yea  significantly disturb	Sampling Point: W-mdt-6/12/2018-04
Hydrophytic vegetation present' Hydric soil present? Wetland hydrology present? Yes Yes	Is the sampled ar	ea within a wetland? Yes
Remarks: PEM wetland in floodplain in maintained RC	W.	
HYDROLOGY		
High Water Table (A2)	a all that apply) Aquatic Plants (B14) rogen Sulfide Odor (C1) ized Rhizospheres on Living is (C3) ence of Reduced Iron (C4) ent Iron Reduction in Tilled is (C6) Muck Surface (C7) er (Explain in Remarks)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  X Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry-Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  Shallow Aquitard (D3)  X Microtopographic Relief (D4)  FAC-Neutral Test (D5)
Field Observations: Surface water present? Yes No Water table present? Yes No Saturation present? Yes X No (includes capillary fringe)  Describe recorded data (stream gauge, monitoring we	X Depth (inches): X Depth (inches): Depth (inches): Output  Bill, aerial photos, previous insp	
Remarks:		
Saturated through 80% of wetland		

ree Stratum Plot Size ( 30 ft. )				Sampling Point: W-mdt-6/12/2018-
ree Stratum Plot Size ( 30 ft. )	<b>A.</b>			50/20 Thresholds
,	Absolute %	Dominant	Indicator	20% 50%
	Cover	Species	Status	Tree Stratum 0 0
				Sapling/Shrub Stratum 0 0
				Herb Stratum 23 58
				Woody Vine Stratum 0 0
				Dominance Test Worksheet
	·			Number of Dominant
				Species that are OBL,
				FACW, or FAC: (A)
				Total Number of Dominant
				Species Across all Strata: 3 (B)
	0 =	Total Cover		Percent of Dominant
				Species that are OBL,
apling/Shrub	Absolute %	Dominant	Indicator	FACW, or FAC: 66.67% (A/B)
Stratum Plot Size ( 15 ft. )	Cover	Species	Status	1 ACW, 011 AC(A/D)
Stratum	Cover	Species	Status	
	<u> </u>			Prevalence Index Worksheet
				Total % Cover of:
				OBL species 10 x 1 = 10
				FACW species 85 x 2 = 170
				FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
	· ——			Column totals 95 (A) 180 (B)
				Prevalence Index = B/A = 1.89
		-		
-	0 =	Total Cover		
				Hydrophytic Vegetation Indicators:
	Absolute %	Dominant	Indicator	Rapid test for hydrophytic vegetation
erb Stratum Plot Size ( 5 ft. )	Cover	Species	Status	X Dominance test is >50%
Phalaris arundinacea	35	Y	FACW	X Prevalence index is≤3.0*
Juncus effusus	20	<u>'</u>	FACW	Morphological adaptations* (provide
Carex sp.	20	Y	FACW	supporting data in Remarks or on a separa
Agrimonia parviflora				•
	15	N	FACW FACW	sheet)
Solidago gigantea	15			Problematic hydrophytic vegetation*
Scirpus atrovirens	10	N	OBL	(explain)
				*Indicators of hydric soil and wetland hydrology must be
				present, unless disturbed or problematic
				Definitions of Vegetation Strata:
	<u> </u>			Tree - Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH and
				greater than 3.28 ft (1 m) tall.
	115 =	Total Cover	·	Herb - All herbaceous (non-woody) plants, regardless
				size, and woody plants less than 3.28 ft tall.
	Absolute %	Dominant	Indicator	,
Voody Vine Plot Size ( 30 ft )	Cover	Species	Status	Woody vines - All woody vines greater than 3.28 ft in
Voody Vine Plot Size ( 30 ft. )				height.
PIOT SIZE ( 30 ff )			<del></del>	
PIOT SIZE ( 30 ff )	·			
Stratum Plot Size ( 30 ft. )				
Stratum Plot Size ( 30 ft. )				Hydrophytic
Stratum Plot Size ( 30 ft. )				Hydrophytic
Stratum Plot Size ( 30 ft. )	0 =	- Total Cover		Hydrophytic vegetation present?

								g :	
Profile Door	rintion: (Dogorih	s to the	donth pooded to	a dooun	ant the	indiaatar	or confirm the absence	of indicators )	
Depth	· · · · · · · · · · · · · · · · · · ·	e to the				indicator	or confirm the absence	or indicators.)	
(Inches)	Matrix Color (moist)	%	Color (moist)	lox Fea %	Type*	Loc**	Texture	Remarks	
0-14	10YR 5/2	90	10YR 4/6	10	С	M	silty clay loam		
0-14	101K 5/2	90	101K 4/6	10		IVI	Silly clay loam		
· ·	oncentration, D= PL=Pore Lining,	•	•	d Matrix	, CS=Co	vered or	Coated Sand Grains		
	Indicators:		·-				Indicators for F	Problematic Hydric Soils:	
,	maioaio. oi		Dark Su	ırface (S	S7)		maioatoro ioi i	robiomano riyano conci	
Histisol	\ /		Polyvalı	ue Belo	w Surfac	e (S8)		(A10) ( <b>MLRA 147)</b>	
	pipedon (A2)		(MLRA	,	-,	Coast Prairie Redox (A16)(MLRA 147,			
	istic (A3)				ace (S9)		Piedmont Floodplain Soils (F19 (MLRA 136, 147)		
, ,	en Sulfide (A4) d Lavers (A5)		(MLRA		∙ <b>8)</b> Matrix (F	-0		w Dark Surface (TF12)	
	uck (A10) <b>(LRR I</b>	M)	X Deplete			-2		ain in Remarks	
	d Below Dark Su	,			rface (F	6)	Other (Expire	all in Remarks	
	ark Surface (A12	,			Surface	,			
	Mucky Mineral (S	,			sions (F8	` '			
,	, MLRA 147, 148	,					LRR N, MLRA 136)		
	, Gleyed Matrix (S	,				ILRA 13			
Sandy I	Redox (S5)	,	Piedmo	nt Flood	dplain Sc	ils (F19)	MLRA 148)		
Stripped	d Matrix (S6)		Red Pa	rent Ma	terial (F2	21) <b>(MLR</b>	A 127, 147)		
*Indicators	of hydrophytic ve	aetation	and wetland hv	droloav	must be	present	., unless disturbed or pro	blem	
							, ,		
Restrictive I	_ayer (if observe	d)							
Type:					_		Hydric soil preser	nt? <u>Y</u>	
Depth (inch	es):				_				
Remarks:						<u> </u>			



Site: F	irstEne	gy Holloway-Knox 138kV	Rater(s): T. Qualio, J.Fre	eer	<b>Date:</b> 05/24/2018
0	0	Metric 1. Wetland A	Area (size)		w-tmq-5/24/2018-04
max 6 pts.	subtotal	Select one size class and assign scores (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	ore. (5) (20.2ha) (5 pts) (1ha) (4 pts) (a) (3 pts) (.2ha) (2pts) (-0.12ha) (1 pt)	·	
5	5	Metric 2. Upland bu	uffers and surround	ing land use.	
max 14 pts.	subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	Om (164ft) or more around wetland pose 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) arour average <10m (<32ft) around wetlar	erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) everage. dlife area, etc. (7) ervation tillage, new falle	ow field. (3)
11	16	Metric 3. Hydrology	/.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5)  Vother groundwater (3)  Precipitation (1)  Seasonal/Intermittent surful Perennial surface water (18  3c. Maximum water depth. Select of Solid	t apply.  3b.  ace water (3) ake or stream) (5) only one and assign score.  3d.  (2) gic regime. Score one or double chemical streams of the stream of the s	Part of wetland/u  Part of riparian or  Duration inundation/sate  Semi- to permand  Regularly inundat  Seasonally inund  Seasonally saturack and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1)
8	24	Metric 4. Habitat A	Iteration and Develo		
max 20 pts.	subtotal	4a. Substrate disturbance. Score o  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select on  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or  None or none apparent (9)  Recovered (6)  Recovering (3)  Recent or no recovery (1)	double check and average.  double check and average.  Check all disturbances observed mowing grazing clearcutting	shrub/sapling ren herbaceous/aqua sedimentation	
QI	24 ubtotal this pa		selective cutting woody debris removal toxic pollutants	dredging farming nutrient enrichme	ent

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-01
	<b>s):</b> T. Qua	lio, J.Freer	<b>Date:</b> 05/24/2018
24 subtotal first page			w-bao-5/15/2018-01
0 24 Metric 5. Special Wetlan	ds.		
Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	nrestricted hydrole estricted hydrole ings) (10) atened or enda fowl habitat or e	ngered species (10) usage (10)	
2 26 Metric 6. Plant communi			ppography.
Max 20 pts. subtotal  6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed  1 Emergent  Shrub  Forest  Mudflats  Open water  Other  6b. horizontal (plan view) Interspersion.  Select only one.  High (5)  Moderately high(4)  Moderate (3)	2	Absent or comprises <0.1ha (0.24) Present and either comprises smit vegetation and is of moderate of significant part but is of low qual present and either comprises significant part but is of low qual present and either comprises significant vegetation and is of moderate of part and is of high quality.  Present and comprises significant vegetation and is of high quality.  Scription of Vegetation Quality.  Low spp diversity and/or predominal disturbance tolerant native specificant.	all part of wetland's uality, or comprises a lity nificant part of wetland's uality or comprises a small t part, or more, of wetland's
Moderately low (2) Low (1)  None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5) Moderate 2575% cover (-3)	high	Native spp are dominant compon- although nonnative and/or distu- can also be present, and specie moderately high, but generally with threatened or endangered spp. A predominance of native species and/or disturbance tolerant native absent, and high spp diversity a	rbance tolerant native spp ses diversity moderate to v/o presence of rare s, with nonnative spp ve spp absent or virtually nd often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Mudflat and 0 1 2 3	Open Water Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 ac Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	res)
Amphibian breeding pools	Microtopogr 0 1 2	Aphy Cover Scale  Absent  Present very small amounts or if the of marginal quality  Present in moderate amounts, but quality or in small amounts of head or greater are small amounts.	t not of highest ghest quality
26 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: F	irstEne	rgy Holloway-Knox 138kV Rater(s): T. Qualio, J.Freer	<b>Date:</b> 05/24/2018
1	1	Metric 1. Wetland Area (size).	w-tmq-5/24/2018-03
max 6 pts.	subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   ✓ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   <0.1 acres (0.04ha) (0 pts)	
5	6	Metric 2. Upland buffers and surrounding land use	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ∠ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fa HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	)
10.5	16.5	Metric 3. Hydrology.	
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  ✓ Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  ✓ Seasonally inundscore.	lain (1)  In/lake and other human use (1)  In/lake and other human
_		3e. Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12) Recovered (7)  Recovering (3) Recent or no recovery (1)  None or none apparent (12) Check all disturbances observed  ditch  tile  dike  road bed/RR traderedging other  stormwater input  other	, i
8	24.5	motifo ii riabitat / iitoration and Bovolopinonii	
max 20 pts.	subtotal	<ul> <li>4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)</li> <li>4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)</li> <li>4c. Habitat alteration. Score one or double check and average.</li> </ul>	
SI	24.5	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Check all disturbances observed  ✓ mowing grazing herbaceous/aqu sedimentation Velearcutting selective cutting woody debris removal toxic pollutants  None or none apparent (9) Check all disturbances observed  ✓ mowing shrub/sapling re herbaceous/aqu dredging farming nutrient enrichm	latic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-02
	<b>s):</b> T. Qua	lio, J.Freer	<b>Date:</b> 05/24/2018
24.5 subtotal first page			w-bao-5/15/2018-01
0 24.5 Metric 5. Special Wetlan	ds.		
max 10 pts. subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-ue Lake Plain Sand Prairies (Oak Openion Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question 1	estricted hydrolo ings) (10) atened or endar fowl habitat or u 1 Qualitative Ra	nggy (5) Ingered species (10) Isage (10) Iting (-10)	
2 26.5 Metric 6. Plant communi	•	•	opography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation C	ommunity Cover Scale Absent or comprises <0.1ha (0.24)	471 acres) contiguous area
Aquatic bed  1 Emergent Shrub	1	Present and either comprises sm vegetation and is of moderate of significant part but is of low qua	all part of wetland's quality, or comprises a
Forest Mudflats Open water	2	Present and either comprises sig vegetation and is of moderate of part and is of high quality	quality or comprises a small
Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significan vegetation and is of high quality	
Select only one.  High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)	Narrative De low	Scription of Vegetation Quality  Low spp diversity and/or predoming disturbance tolerant native specific Native spp are dominant componing the series of the	cies ent of the vegetation,
Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		although nonnative and/or distuct can also be present, and species moderately high, but generally threatened or endangered spp	es diversity moderate to
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	A predominance of native species and/or disturbance tolerant nati absent, and high spp diversity a the presence of rare, threatener	ve spp absent or virtually and often, but not always,
Nearly absent <5% cover (0)  Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	3 acres)
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more	
Amphibian breeding pools	Microtopogra	aphy Cover Scale	
	0	Absent	
	1	Present very small amounts or if	more common
		of marginal quality	
	2	Present in moderate amounts, bu quality or in small amounts of h	
	3	Present in moderate or greater ar	
26.5 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: F	irstEne	gy Holloway-Knox 138kV	Rater(s): M. Thomayer,	T. Qualio	<b>Date:</b> 6/06/2018
2 max 6 pts.	2 subtotal	Metric 1. Wetland A  Select one size class and assign sco  >50 acres (>20.2ha) (6 pts  25 to <50 acres (10.1 to <  10 to <25 acres (4 to <10.  3 to <10 acres (1.2 to <4h  ✓ 0.3 to <3 acres (0.12 to <10.)	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts)		w-mdt-06/06/2018-04
8 max 14 pts.	10 subtotal	0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts  Metric 2. Upland bu  2a. Calculate average buffer width.  WIDE. Buffers average 50	uffers and surround	Do not double check.	
		MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Intensity of surrounding land use VERY LOW. 2nd growth LOW. Old field (>10 years MODERATELY HIGH. Re	e 25m to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) arou average <10m (<32ft) around wetla	d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) servation tillage, new fallo	ow field. (3)
16	26	Metric 3. Hydrology	<b>/</b> .		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfillerential surface water (late in the season in the seas	ace water (3) ake or stream) (5) only one and assign score. a) (2) gic regime. Score one or double che	✓ Part of wetland/up ✓ Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat ✓ Seasonally inundat Seasonally saturateck and average.	in (1) lake and other human use (1) lake and other human use (1) land (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) lated (2) lated in upper 30cm (12in) (1) stormwater)
7.5	33.5	Metric 4. Habitat A 4a. Substrate disturbance. Score o		opment.	
		None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select on  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or	ly one and assign score.		
SI	33.5	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	d  ✓ shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-03
	<b>s):</b> M. Th	omayer, T. Qualio	<b>Date:</b> 6/06/2018
33.5 subtotal first page			w-mdt-6/06/2018-04
0 33.5 Metric 5. Special Wetlan	ds.		
max 10 pts. subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-u Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water	nrestricted hydro estricted hydro ings) (10) atened or enda fowl habitat or	angered species (10) usage (10)	
-4 29.5 <b>Metric 6. Plant communi</b>			otopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	(0.0474 page) pagtiguage
Score all present using 0 to 3 scale.  Aquatic bed  Emergent Shrub	1	Present and either comprises vegetation and is of modera significant part but is of low	ate quality, or comprises a
Forest Mudflats Open water	2	Present and either comprises	
Other6b. horizontal (plan view) Interspersion.	3	Present and comprises signifi vegetation and is of high qu	icant part, or more, of wetland's ality
Select only one.  High (5)	Narrative D	escription of Vegetation Quali	tv
Moderately high(4)  Moderate (3)	low	Low spp diversity and/or pred disturbance tolerant native s	ominance of nonnative or
Moderately low (2) Low (1) ✓ None (0) 6c. Coverage of invasive plants. Refer	mod	can also be present, and sp moderately high, but genera	disturbance tolerant native spp secies diversity moderate to ally w/o presence of rare
to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high		ecies, with nonnative spp native spp absent or virtually ity and often, but not always,
Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	7 00*00)
Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	1	Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to 9	
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more	-
Amphibian breeding pools	Microtopog	raphy Cover Scale	
<del></del>	0 1	Absent Present very small amounts of	or if more common
	2	of marginal quality  Present in moderate amounts	
	3	quality or in small amounts  Present in moderate or greate	
29.5 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: F	irstEne	gy Holloway-Knox 138kV	Rater(s): M. Thomayer,	, T. Qualio	<b>Date:</b> 6/06/2018
0 max 6 pts.	0 subtotal	Metric 1. Wetland A Select one size class and assign sco	` '		w-mdt-06/06/2018-03
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.' 3 to <10 acres (1.2 to <4ha) 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to <	) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)		
11	11	Metric 2. Upland bu	iffers and surround	ding land use.	
max 14 pts.	subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	Om (164ft) or more around wetland 25m to <50m (82 to <164ft) aroun 3e 10m to <25m (32ft to <82ft) around 3e average <10m (<32ft) around wetla	perimeter (7) and wetland perimeter (4) und wetland perimeter (1) and perimeter (0) I average. vildlife area, etc. (7) an forest. (5) anservation tillage, new fallo	ow field. (3)
9	20	Metric 3. Hydrology	<b>/.</b>		
max 30 pts.	subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in  V <0.4m (<15.7in) (1) 3e. Modifications to natural hydrology	ace water (3) ske or stream) (5) nly one and assign score.	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat V Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
		None or none apparent (12  Recovered (7)  Recovering (3)  Recent or no recovery (1)			·
6.5	26.5	Metric 4. Habitat Al		opment.	
max 20 pts.	subtotal	<ul> <li>4a. Substrate disturbance. Score or None or none apparent (4)</li> <li>✓ Recovered (3)</li> <li>✓ Recovering (2)</li> <li>Recent or no recovery (1)</li> <li>4b. Habitat development. Select on Excellent (7)</li> <li>✓ Very good (6)</li> <li>Good (5)</li> <li>Moderately good (4)</li> <li>Fair (3)</li> <li>Poor to fair (2)</li> <li>✓ Poor (1)</li> <li>4c. Habitat alteration. Score one or</li> </ul>	ly one and assign score.		
SI	26.5	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	tic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-04
	s): M. Th	omayer, T. Qualio	<b>Date:</b> 6/06/2018
26.5 subtotal first page			w-mdt-6/06/2018-03
0 26.5 Metric 5. Special Wetlan	de		
max 10 pts. subtotal Check all that apply and score as indicated.	us.		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water	estricted hydro ings) (10) atened or enda	angered species (10)	
Category 1 Wetland. See Question		• , ,	
0 26.5 Metric 6. Plant communi	ities int	erspersion micro	otonogranhy
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	otopograpity.
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha	(0.2471 acres) contiguous area
Aquatic bed  1 Emergent Shrub	1	Present and either comprises vegetation and is of modera significant part but is of low	ate quality, or comprises a quality
Forest Mudflats Open water	2	Present and either comprises vegetation and is of modera part and is of high quality	s significant part of wetland's ate quality or comprises a small
Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises signif vegetation and is of high qu	icant part, or more, of wetland's ality
Select only one.	N 41 B		
High (5)  Moderately high(4)	low	Low spp diversity and/or pred	
Moderate (3)	1000	disturbance tolerant native	
Moderately low (2)	mod	Native spp are dominant com	•
Low (1)		_	disturbance tolerant native spp
None (0)			pecies diversity moderate to
6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but generated threatened or endangered s	•
or deduct points for coverage	high	A predominance of native spe	
Extensive >75% cover (-5)	· ·		native spp absent or virtually
Moderate 25-75% cover (-3)			sity and often, but not always,
✓ Sparse 5-25% cover (-1)		the presence of rare, threat	ened, or endangered spp
Nearly absent <5% cover (0) Absent (1)	Mudflat and	d Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.4	
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to	9.88 acres)
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	<u>e</u>
Standing dead >25cm (10in) dbh	Mioreten	aronhy Coyor Soolo	
Amphibian breeding pools	Microtopog	Absent	
	1	Present very small amounts of	or if more common
	•	of marginal quality	
	2	Present in moderate amounts quality or in small amounts	
	3	Present in moderate or greate and of highest quality	
26.5 GRAND TOTAL (max 100 pts)			

Site: F	irstEne	rgy Holloway-Knox 138kV Rater(s): M. Thomayer, T. Qualio	<b>Date:</b> 6/06/2018
0	0	Metric 1. Wetland Area (size).	w-mdt-06/06/2018-02
max 6 pts.	subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   ✓ <0.1 acres (0.04ha) (0 pts)	
8	8	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new falle HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
13	21	Metric 3. Hydrology.	
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  ✓ Precipitation (1)  ✓ Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  3b. Connectivity. Score all  100 year floodpla  Between stream/  ✓ Part of riparian or  3d. Duration inundation/sat	uin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) lated (2) ated in upper 30cm (12in) (1)
7	28	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  Recovering (3)  Check all disturbances observed  mowing  grazing  shrub/sapling ren herbaceous/aqua	
s	28 ubtotal this pa	Recent or no recovery (1)  clearcutting selective cutting woody debris removal toxic pollutants  sedimentation dredging farming nutrient enrichmentation	ent

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-05
	r(s): M. Th	omayer, T. Qualio	<b>Date:</b> 6/06/2018
28 subtotal first page			w-mdt-6/06/2018-02
0 28 Metric 5. Special Wetlan	nde		
max 10 pts. subtotal Check all that apply and score as indicated.	ilus.		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Ope Relict Wet Prairies (10) Known occurrence state/federal thr Significant migratory songbird/wate	restricted hydro enings) (10) reatened or end er fowl habitat or	angered species (10)	
Category 1 Wetland. See Question  Metric 6. Plant commun			otopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation	Community Cover Scale	
Score all present using 0 to 3 scale.  Aquatic bed Emergent	1	Absent or comprises <0.1ha  Present and either comprises vegetation and is of moder	
Shrub Forest	2		s significant part of wetland's
Mudflats Open water Other	3	part and is of high quality	rate quality or comprises a small ficant part, or more, of wetland's
6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high q	
High (5)	Narrative D	escription of Vegetation Qua	lity
Moderately high(4) Moderate (3)	low	Low spp diversity and/or pred disturbance tolerant native	
Moderately low (2) Low (1)  ✓ None (0)	mod	_	disturbance tolerant native spp
6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but gener threatened or endangered	
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)	high	A predominance of native sp and/or disturbance tolerant	
Sparse 5-25% cover (-1)  ✓ Nearly absent <5% cover (0)		the presence of rare, threa	
Absent (1)	Mudflat and	d Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.4	
Vegetated hummucks/tussucks	3	Moderate 1 to <4ha (2.47 to	
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	<u> </u>	High 4ha (9.88 acres) or mor	T C
Amphibian breeding pools	Microtopog	graphy Cover Scale	
	0	Absent	
	1	Present very small amounts	or if more common
		of marginal quality	a had and of blake t
	2	Present in moderate amount quality or in small amounts	of highest quality
00	3	Present in moderate or great and of highest quality	ter amounts
29 GRAND TOTAL (max 100 pts)			_

Site: F	irstEne	rgy Holloway-Knox 138kV Rater(s): M. Thomayer, T. Qualio	<b>Date:</b> 6/06/2018
0	0	<u></u>	w-mdt-06/06/2018-01
max 6 pts.	subtotal	Metric 1. Wetland Area (size).  Selectione size class and assign score.	W 111dt 00/00/2010 01
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)	
8	8	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow the first park industrial, open pasture, row cropping, mining, construction. (1)	ow field. (3)
7	15	Metric 3. Hydrology.	
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  3b. Connectivity. Score all 100 year floodpla  Between stream/  Part of riparian or 3d. Duration inundation/sate  Semi- to permaner Regularly inundation/sate Seasonally inundation/sate Seasonall	in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) led/saturated (3) lated (2) lated in upper 30cm (12in) (1) listormwater)
6	21	stormwater inputother	
max 20 pts.	subtotal	Metric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  Check all disturbances observed  Abstraction of the property o	
SU	21	Recovering (3) Recent or no recovery (1)  Graph Recovering (3) Recovering (3) Recent or no recovery (1)  Graph Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (3) Recovering (4) Recovering (5) Recovering (5) Recovering (5) Recovering (5) Recovering (5) Recovering (5) Recovering (6) Recovering (7) Recove	

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-06
	( <b>s):</b> M. Tho	mayer, T. Qualio	<b>Date:</b> 6/06/2018
21 subtotal first page			w-mdt-6/06/2018-01
0 21 Metric 5. Special Wetlan	ds.		
Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-rule. Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydrolo lings) (10) atened or endar fowl habitat or u	ngered species (10) usage (10)	
1 22 Metric 6. Plant commun	ities, inte	erspersion, microt	copography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation 0	Community Cover Scale Absent or comprises <0.1ha (0.00)	2471 acres) contiguous area
Aquatic bed  1 Emergent Shrub	1	Present and either comprises so vegetation and is of moderate significant part but is of low qu	mall part of wetland's quality, or comprises a
Forest Mudflats Open water	2	Present and either comprises si vegetation and is of moderate part and is of high quality	quality or comprises a small
Other  6b. horizontal (plan view) Interspersion.	3	Present and comprises significated vegetation and is of high quality	
Select only one.  High (5)	Narrative De	scription of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or predon	ninance of nonnative or
Moderate (3) Moderately low (2)	mod	disturbance tolerant native sponsative spp are dominant composition.	
Low (1)	mod	although nonnative and/or dis	_
✓ None (0)		can also be present, and spec	
6c. Coverage of invasive plants. Refer		moderately high, but generally	
to Table 1 ORAM long form for list. Add or deduct points for coverage	high	threatened or endangered spp A predominance of native speci	
Extensive >75% cover (-5)	riigii	and/or disturbance tolerant na	
Moderate 25-75% cover (-3)		absent, and high spp diversity	
Sparse 5-25% cover (-1)		the presence of rare, threaten	ed, or endangered spp
Nearly absent <5% cover (0)	Manadelan anad	O Watan Olasa O	
Absent (1) 6d. Microtopography.	o Nucriat and	Open Water Class Quality Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	acres)
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8	
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
Standing dead >25cm (10in) dbh	BAL.		
Amphibian breeding pools		aphy Cover Scale Absent	
	<u>0</u>	Absent Present very small amounts or i	f more common
	1	of marginal quality	· more common
	2	Present in moderate amounts, b	out not of highest
		quality or in small amounts of	highest quality
	3	Present in moderate or greater	amounts
22 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: F	irstEne	rgy Holloway-Knox 138kV Rater(s): M. Thomayer, T. Qualio	<b>Date:</b> 6/06/2018
2	2	Metric 1. Wetland Area (size).	w-mdt-06/06/2018-0
max 6 pts.	subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   ✓ 0.3 to <3 acres (0.12 to <1.2ha) (2pts)   0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   <0.1 acres (0.04ha) (0 pts)	
8	10	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
12.5	22.5	Metric 3. Hydrology.	
max 30 pts.	subtotal	✓ Precipitation (1)       Part of wetland/up         ✓ Seasonal/Intermittent surface water (3)       ✓ Part of riparian or         Jac       Perennial surface water (lake or stream) (5)       3d. Duration inundation/sate         3c. Maximum water depth. Select only one and assign score.       Semi- to permane	in (1) lake and other human use (1) pland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4)
		>0.7 (27.6in) (3)   Regularly inundat   0.4 to 0.7m (15.7 to 27.6in) (2)   ✓ Seasonally inundat   ✓ Seasonally satura   Sea	ated (2) ated in upper 30cm (12in) (1) astormwater)
9	31.5	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)	
		Moderately good (4)  ✓ Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  ✓ Recovering (3)  Recent or no recovery (1)  Moderately good (4)  ✓ Check and average.  Check all disturbances observed  ✓ shrub/sapling remember herbaceous/aqual sedimentation	
SI	31.5	selective cutting dredging woody debris removal toxic pollutants nutrient enrichme	ent

Site: FirstEnergy Holloway-Knox 138kV Rater	<b>(s):</b> M. Th	omayer, T. Qualio	<b>Date:</b> 6/06/2018
31.5			w-mdt-06/06/2018-06
subtotal first page			
0 04.5	. d.a		
inetiic 3. Opeciai Wetiai	ias.		
max 10 pts. subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10)			
Mature forested wetland (5)  Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland-	•		
Lake Plain Sand Prairies (Oak Oper		nogy (5)	
Relict Wet Prairies (10)  Known occurrence state/federal thre	eatened or end	angered species (10)	
Significant migratory songbird/water	fowl habitat or	usage (10)	
Category 1 Wetland. See Question	1 Qualitative F	Rating (-10)	
2 33.5 Metric 6. Plant commun	ities. inf	erspersion, micro	otopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	
Score all present using 0 to 3 scale.	0		(0.2471 acres) contiguous area
Aquatic bed	1	Present and either comprises	
1 Emergent Shrub		vegetation and is of modera significant part but is of low	
Forest	2	Present and either comprises	
Mudflats	_	-	ate quality or comprises a small
Open water		part and is of high quality	
Other	3	-	icant part, or more, of wetland's
<ol><li>6b. horizontal (plan view) Interspersion.</li><li>Select only one.</li></ol>		vegetation and is of high qu	ality
High (5)	Narrative D	escription of Vegetation Quali	itv
Moderately high(4)	low	Low spp diversity and/or pred	
Moderate (3)		disturbance tolerant native	•
Moderately low (2)	mod	Native spp are dominant com	
Low (1)  ✓ None (0)		can also be present, and sp	disturbance tolerant native spp
6c. Coverage of invasive plants. Refer		moderately high, but genera	-
to Table 1 ORAM long form for list. Add		threatened or endangered s	
or deduct points for coverage	high	A predominance of native spe	
Extensive >75% cover (-5)  Moderate 25-75% cover (-3)			native spp absent or virtually sity and often, but not always,
Sparse 5-25% cover (-1)		the presence of rare, threat	•
Nearly absent <5% cover (0)		· · · · · · · · · · · · · · · · · · ·	, v
Absent (1)		d Open Water Class Quality	
6d. Microtopography.	0 1	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks	2	Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to	
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
Standing dead >25cm (10in) dbh			
Amphibian breeding pools		raphy Cover Scale	
	<u>0</u>	Absent  Present very small amounts of	or if more common
	ı	of marginal quality	A II MORE COMMON
	2	Present in moderate amounts	, but not of highest
		quality or in small amounts	
	3	Present in moderate or greate	er amounts
33.5 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: F	<b>Date:</b> 6/06/2018		
1	1	Metric 1. Wetland Area (size).	w-mdt-06/06/2018-0
max 6 pts.	subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   ✓ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   <0.1 acres (0.04ha) (0 pts)	
8	9	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ∠ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
9.5	18.5	Metric 3. Hydrology.	
max 30 pts.	subtotal	✓Precipitation (1)Part of wetland/up✓Seasonal/Intermittent surface water (3)✓Part of riparian or part of r	in (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)  Check all disturbances observed  ditch tile dike V road bed/RR trace dredging stormwater input  Check all disturbances observed  point source (non filling/grading road bed/RR trace dredging other	, i
6	24.5	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	<ul> <li>4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)</li> <li>4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)</li> <li>4c. Habitat alteration. Score one or double check and average.</li> </ul>	
si	24.5	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Check all disturbances observed  wowing Grazing Clearcutting Clearcutting Selective cutting Woody debris removal Toxic pollutants  Check all disturbances observed  wowing Grazing Clearcutting Farming None or none apparent (9) Toxic pollutants  Check all disturbances observed  wowing Grazing Clearcutting Farming None or none apparent (9) Toxic pollutants	ttic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-08
	<b>s):</b> M. Th	omayer, T. Qualio	Date: 6/06/2018
24.5 subtotal first page			w-mdt-6/06/2018-05
0 24.5 Metric 5. Special Wetlan	de		
max 10 pts. subtotal Check all that apply and score as indicated.	us.		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water	estricted hydro ings) (10) atened or end fowl habitat or	angered species (10)	
Category 1 Wetland. See Question  1 25.5 Metric 6. Plant communi			otonography
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	nopograpny.
Score all present using 0 to 3 scale.	0		0.2471 acres) contiguous area
Aquatic bed  1 Emergent Shrub	1	Present and either comprises vegetation and is of modera significant part but is of low	te quality, or comprises a quality
Forest Mudflats Open water	2	part and is of high quality	te quality or comprises a small
Other  6b. horizontal (plan view) Interspersion.	3	Present and comprises signification and is of high quality	cant part, or more, of wetland's ality
Select only one. High (5)	Narrative D	escription of Vegetation Quali	tv
Moderately high(4)  Moderate (3)	low	Low spp diversity and/or predodisturbance tolerant native s	ominance of nonnative or
Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer	mod	Native spp are dominant compalthough nonnative and/or dominative and sp moderately high, but general	isturbance tolerant native spp ecies diversity moderate to
to Table 1 ORAM long form for list. Add		threatened or endangered s	
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high		native spp absent or virtually ity and often, but not always,
✓ Nearly absent <5% cover (0)			
Absent (1) 6d. Microtopography.	Mudflat and	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	7 acres)
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9	
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	)
Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtono	graphy Cover Scale	
Amphilbian breeding pools	0	graphy Cover Scale Absent	
	1	Present very small amounts o	r if more common
	2	of marginal quality  Present in moderate amounts	
	3	quality or in small amounts of Present in moderate or greate	
25.5 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: FirstEnergy Holloway-Knox 138kV Rater(s): M. Thomayer, T. Qualio			<b>Date:</b> 6/06/2018	
max 6 pts.	1 subtotal	Metric 1. Wetland A Select one size class and assign scores (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 √ 0.1 to <0.3 acres (0.04 to < <0.1 acres (0.04ha) (0 pts)	re. 0.2ha) (5 pts) ha) (4 pts) ) (3 pts) 2ha) (2pts)	w-mdt-06/06/2018-08
8 max 14 pts.	9 subtotal	Metric 2. Upland bu  2a. Calculate average buffer width. S  WIDE. Buffers average 50  MEDIUM. Buffers average  NARROW. Buffers average  VERY NARROW. Buffers s  2b. Intensity of surrounding land use  VERY LOW. 2nd growth o  LOW. Old field (>10 years)  MODERATELY HIGH. Res	Select only one and assign score. Do not double check. m (164ft) or more around wetland perimeter (7) 25m to <50m (82 to <164ft) around wetland perimeter (4) e 10m to <25m (32ft to <82ft) around wetland perimeter (1) average <10m (<32ft) around wetland perimeter (0). Select one or double check and average. r older forest, prairie, savannah, wildlife area, etc. (7) , shrubland, young second growth forest. (5) sidential, fenced pasture, park, conservation tillage, new fallopen pasture, row cropping, mining, construction. (1)	
12.5	21.5	Metric 3. Hydrology	<i>'</i> .	
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (lal 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <ul> <li>&lt;0.4m (&lt;15.7in) (1)</li> </ul>	apply.  3b. Connectivity. Score all  100 year floodpla  Between stream// Part of wetland/u/ Part of riparian or 3d. Duration inundation/sate Semi- to permane Regularly inundat  (2)  (2)  Seasonally saturation or double check and average.	in (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1)
9	30.5	Metric 4 Habitat ΔI	teration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score on None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or one or one or one apparent (9)	e or double check and average.  y one and assign score.	
SU	30.5	Recovered (6) Recovering (3) Recent or no recovery (1)	✓ mowing	itic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-09
Site: FirstEnergy Holloway-Knox 138kV Rater(	<b>s):</b> M. Tho	omayer, T. Qualio	<b>Date:</b> 6/06/2018
30.5			w-mdt-6/06/2018-08
0 30.5 Metric 5. Special Wetlan	ds.		
max 10 pts. subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	nrestricted hyd estricted hydrol ings) (10) atened or enda fowl habitat or	ngered species (10) usage (10)	
3 33.5 Metric 6. Plant communi			opography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	
Score all present using 0 to 3 scale.  Aquatic bed  Emergent	<u> </u>	Absent or comprises <0.1ha (0.2) Present and either comprises sn vegetation and is of moderate	nall part of wetland's quality, or comprises a
Shrub Forest Mudflats	2	significant part but is of low qu Present and either comprises significant vegetation and is of moderate	gnificant part of wetland's
Open water Other  6b. horizontal (plan view) Interspersion.	3	part and is of high quality  Present and comprises significal vegetation and is of high qualit	
Select only one.		vegetation and is of high qualit	у
High (5)	Narrative De	escription of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or predom	
Moderate (3)  Moderately low (2)  Low (1)  None (0)  6c. Coverage of invasive plants. Refer	mod	Native spp are dominant comport although nonnative and/or district can also be present, and specimoderately high, but generally threatened as and appared and the second an	nent of the vegetation, urbance tolerant native spp ies diversity moderate to w/o presence of rare
to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	threatened or endangered spp A predominance of native specie and/or disturbance tolerant nat absent, and high spp diversity the presence of rare, threatene	es, with nonnative spp ive spp absent or virtually and often, but not always,
Nearly absent <5% cover (0)	Mudflot and	Onen Water Class Ovality	
✓ Absent (1) 6d. Microtopography.	o Nucliat and	Open Water Class Quality Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	icres)
1 Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopogi	raphy Cover Scale	
	0	Absent	
	1	Present very small amounts or if	more common
	2	of marginal quality  Present in moderate amounts, b quality or in small amounts of I	_
	3	Present in moderate or greater a	
33.5 GRAND TOTAL (max 100 pts)		and of highest quality	

nergy	Holloway-Knox 138kV	Rater(s): M. Thomayer,	I. Qualio	<b>Date:</b> 6/06/2018
		•		w-mdt-06/06/2018-07
tal Sele	>50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to <	) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)		
M	etric 2. Upland bu	iffers and surround	ing land use.	
	WIDE. Buffers average 50 MEDIUM. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	om (164ft) or more around wetland per 25m to <50m (82 to <164ft) around the 10m to <25m (32ft to <82ft) around average <10m (<32ft) around wetlard. Select one or double check and a per older forest, prairie, savannah, wilcolo, shrubland, young second growth fisidential, fenced pasture, park, cons	erimeter (7) wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) everage. Illife area, etc. (7) ervation tillage, new fallo	ow field. (3)
M	etric 3. Hydrology	<i>1</i> .		
3c.	High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in)  V. 0.4m (<15.7in) (1) Modifications to natural hydrolog	ace water (3) ke or stream) (5) 3d. nly one and assign score. ) (2) ic regime. Score one or double chec	100 year floodpla Between stream/l Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat Seasonally saturack and average.	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2) ated in upper 30cm (12in) (1)  stormwater)
М	etric 4. Habitat Al	teration and Develo	pment.	
4b.	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select onl Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or	double check and average.  Check all disturbances observed  mowing grazing clearcutting selective cutting woody debris removal	<ul><li>✓ shrub/sapling rem herbaceous/aqua sedimentation dredging farming</li></ul>	tic bed removal
	Motal Selection	Metric 1. Wetland A  Select one size class and assign sco  >50 acres (>20.2ha) (6 pts  25 to <50 acres (10.1 to <2  10 to <25 acres (4 to <10.1  3 to <10 acres (1.2 to <4ha  0.3 to <3 acres (0.02 to <1  0.1 to <0.3 acres (0.04 to <10.1)  ANARROW. Buffers average 50  MEDIUM. Buffers average 50  Metric 3. Hydrogen  VERY NARROW. Buffers  VERY LOW. 2nd growling.  Seasonal/Internitient surface 40  None or none apparent (1)  Au. Hook 17 m (15.7 to 27.6in)  None or none apparent (4)  Recovered (3)  Recent or no recovery (1)  Au. Habitat development. Select one  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  Ac. Habitat alteration. Score one or  None or none apparent (9)  Recovered (6)  Recovered (6)  Recovered (6)  Recovered (6)  Recovered (6)  Recovered (6)	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20 2ha) (6 pts)  10 to <25 acres (<20 2ha) (8 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (0.20 4ha) (3 pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	Metric 1. Wetland Area (size).

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-10
Site: FirstEnergy Holloway-Knox 138kV Rater(	<b>s):</b> M. Tho	omayer, T. Qualio	<b>Date:</b> 6/06/2018
22 subtotal first page			w-mdt-6/06/2018-07
0 22 Metric 5. Special Wetlan	ds.		
Check all that apply and score as indicated.  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland (5)  Lake Erie coastal/tributary wetland-re  Lake Plain Sand Prairies (Oak Openi  Relict Wet Prairies (10)  Known occurrence state/federal threa  Significant migratory songbird/water is  Category 1 Wetland. See Question 2	nrestricted hyd estricted hydrol ings) (10) atened or enda fowl habitat or	ngered species (10) usage (10)	
2 24 Metric 6. Plant communi	ties, into	erspersion, microt	opography.
6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed Emergent Shrub Forest Mudflats Open water Other 6b. horizontal (plan view) Interspersion.  Select only one.  High (5) Moderately high(4) Moderately low (2)	2	Absent or comprises <0.1ha (0.2 Present and either comprises sr vegetation and is of moderate significant part but is of low qu Present and either comprises significant part but is of low qu Present and either comprises significant part and is of moderate part and is of high quality Present and comprises significant vegetation and is of high quality  Escription of Vegetation Quality Low spp diversity and/or predomination disturbance tolerant native specification.	nall part of wetland's quality, or comprises a nality gnificant part of wetland's quality or comprises a small nt part, or more, of wetland's ty
Low (1)  None (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)	high	although nonnative and/or dist can also be present, and spec moderately high, but generally threatened or endangered spp A predominance of native specie and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threatene	urbance tolerant native spp ies diversity moderate to w/o presence of rare es, with nonnative spp tive spp absent or virtually and often, but not always,
Absent (1) 6d. Microtopography.  Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks  Coarse woody debris >15cm (6in)  Standing dead >25cm (10in) dbh	0 1 2 3	Open Water Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 a Moderate 1 to <4ha (2.47 to 9.8 High 4ha (9.88 acres) or more	
Amphibian breeding pools  GRAND TOTAL (max 100 pts)	Microtopogram 1  2  3	Absent Present very small amounts or it of marginal quality Present in moderate amounts, be quality or in small amounts of Present in moderate or greater a and of highest quality	ut not of highest highest quality

	tric 1. Wetland Area (size).	w-mdt-06/07/2018-03
	tilo I. Wetlalia Alea (3126).	1
	ct one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <	
Ме	tric 2. Upland buffers and surrounding land use.	
	WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  LOW. Old field (>10 years), shrubland, young second growth forest. (5)	w field. (3)
Me	tric 3. Hydrology.	
3c. N	High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  ✓ <0.4m (<15.7in) (1)  Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12)  Recovered (7)  Recovering (3)  100 year floodplain  Between stream/la  Part of riparian or  Part of riparian or  Semi- to permane  Regularly inundate  Seasonally inundate  Seasonally satura  Check all disturbances observed  Recovered (7)  Indication in the part of riparian or  Part of vetland/up  Part of vetland/up  Part of wetland/up  Part of riparian or  Semi- to permane  Regularly inundate  Seasonally inundate  Jeasonally satura  Check all disturbances observed  Recovered (7)  Indication in undation/satu	n (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. intly inundated/saturated (4) ed/saturated (3) ated (2) ted in upper 30cm (12in) (1)
Me	etric 4. Habitat Alteration and Development.	
4b. F	None or none apparent (4)  Recovered (3) Recovering (2) Recent or no recovery (1)  Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Recovered (6) Recovering (3) Recent or no recovery (1)	tic bed removal
) to	2b.	10 to <25 acres (4 to <10.1ha) (4 pts)

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-11
	(s): M. Tho	omayer, T. Qualio	<b>Date:</b> 6/07/18
19 subtotal first page			w-mdt-5/01/2018-01
0 19 Metric 5. Special Wetlan	ds.		
Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-ru Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	inrestricted hyd estricted hydrol ings) (10) atened or enda fowl habitat or	ngered species (10) usage (10)	
2 21 Metric 6. Plant commun	ities, int	erspersion, microto	opography.
max 20 pts. subtotal  6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed  1 Emergent Shrub Forest Mudflats Open water Other 6b. horizontal (plan view) Interspersion.  Select only one.  High (5) Moderately high(4) Moderate (3) Moderately low (2) Low (1) ✓ None (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-3)	2	Absent or comprises <0.1ha (0.24) Present and either comprises sm vegetation and is of moderate of significant part but is of low quater and either comprises significant part but is of low quater and is of moderate of part and is of high quality.  Present and comprises significant vegetation and is of high quality.  Present and comprises significant vegetation and is of high quality.  Escription of Vegetation Quality.  Low spp diversity and/or predoming disturbance tolerant native spectage.  Native spp are dominant componing although nonnative and/or disturbance and/or disturbance and/or disturbance of native species and/or disturbance tolerant native and/or disturbance tolerant native and/or disturbance tolerant native absent, and high spp diversity and species and/or disturbance tolerant native absent, and high spp diversity and species and/or disturbance tolerant native absent, and high spp diversity and species and/or disturbance tolerant native absent, and high spp diversity and species and/or disturbance tolerant native absent, and high spp diversity and species and/or disturbance tolerant native absent, and high spp diversity and species and/or disturbance tolerant native absent, and high spp diversity and species a	all part of wetland's quality, or comprises a dity inficant part of wetland's quality or comprises a small it part, or more, of wetland's inance of nonnative or cies ent of the vegetation, inchance tolerant native spp es diversity moderate to w/o presence of rare s, with nonnative spp ve spp absent or virtually
Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools	0 1 2 3	Absent, and high spp diversity a the presence of rare, threatener  Open Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more  raphy Cover Scale  Absent  Present very small amounts or if of marginal quality  Present in moderate amounts, but quality or in small amounts of here and of highest quality	cres) B acres) more common at not of highest ighest quality
21 GRAND TOTAL (max 100 pts)			

Site: F	irstEne	rgy Holloway-Knox 138kV <b>Rater(s):</b> M. Thomayer, T. Qualio	<b>Date:</b> 6/07/2018
0	0	Metric 1. Wetland Area (size).	w-mdt-06/07/2018-02
max 6 pts.	subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   <0.1 acres (0.04ha) (0 pts)	
5	5	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	ow field. (3)
6	11	Metric 3. Hydrology.	
max 30 pts.	subtotal	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  Part of wetland/up	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2) uted in upper 30cm (12in) (1)
7	18	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  Recovered (6)  Recovering (3)  Recent or no recovery (1)  Check all disturbances observed  wherbaceous/aquain clear rutting.	
SL	18 ubtotal this pa	Recent or no recovery (1)    clearcutting   sedimentation     voody debris removal   toxic pollutants   nutrient enrichme	nt

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-12
	(s): M. Tho	mayer, T. Qualio	<b>Date:</b> 6/07/2018
18 subtotal first page			w-mdt-06/07/2018-02
0 18 Metric 5. Special Wetlan	ds.		
max 10 pts. subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	nrestricted hyd estricted hydrol ings) (10) atened or enda fowl habitat or	ngered species (10) usage (10)	
2 20 Metric 6. Plant communi	ities, inte	erspersion, mic	rotopography.
max 20 pts. subtotal  6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed  1 Emergent  Shrub  Forest  Mudflats  Open water  Other  6b. horizontal (plan view) Interspersion.  Select only one.  High (5)  Moderately high(4)  Moderately low (2)  Low (1)  V None (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)	2	Present and either comprise vegetation and is of mode significant part but is of lot Present and either comprise vegetation and is of mode part and is of high quality. Present and comprises significant and comprises significant and is of high vegetation of Vegetation Quality. Scription of Vegetation Quality and/or prediction o	erate quality, or comprises a bw quality less significant part of wetland's lerate quality or comprises a small lerate quality or comprises a small lerate quality leading and the second of the second of the vegetation, or disturbance tolerant native spot species diversity moderate to lerally woo presence of rare dispp
Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools	0 1 2 3	absent, and high spp dive	ersity and often, but not always, attened, or endangered spp  s) 2.47 acres) o 9.88 acres) ore  s or if more common  hts, but not of highest ts of highest quality
20 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: F	irstEne	rgy Holloway-Knox 138kV <b>Rater(s):</b> M. Thomayer, T. Qualio	<b>Date:</b> 6/07/2018
0	0	Motric 1 Wotland Area (size)	w-mdt-06/07/2018-01
max 6 pts.	subtotal	Metric 1. Wetland Area (size).  Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   ✓ <0.1 acres (0.04ha) (0 pts)	
5	5	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	ow field. (3)
6	11	Metric 3. Hydrology.	
max 30 pts.	subtotal	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  Part of wetland/up	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2) uted in upper 30cm (12in) (1)
7	18	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  Recovering (3)  Check all disturbances observed  mowing  y shrub/sapling rem herbaceous/aqual	
SI	18 ubtotal this pa	Recent or no recovery (1)    clearcutting   sedimentation     voody debris removal   toxic pollutants   nutrient enrichme	nt

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-13
	<b>s):</b> M. Tho	omayer, T. Qualio	<b>Date:</b> 6/07/2018
18 subtotal first page			w-mdt-06/07/2018-01
0 18 Metric 5. Special Wetlan	ds.		
Check all that apply and score as indicated.  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland (5)  Lake Erie coastal/tributary wetland-re  Lake Plain Sand Prairies (Oak Opening Relict Wet Prairies (10)  Known occurrence state/federal three  Significant migratory songbird/water  Category 1 Wetland. See Question	nrestricted hyd estricted hydrol ings) (10) atened or enda fowl habitat or	ngered species (10) usage (10)	
2 20 Metric 6. Plant communi	ties, into	erspersion, mici	rotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed	Vegetation 0 1	Present and either comprise	
1 Emergent Shrub Forest	2	significant part but is of lo Present and either comprise	es significant part of wetland's
Mudflats Open water		part and is of high quality	erate quality or comprises a small
Other6b. horizontal (plan view) Interspersion. Select only one.	3	vegetation and is of high o	nificant part, or more, of wetland's quality
High (5)  Moderately high(4)	Narrative De	scription of Vegetation Qual Low spp diversity and/or pre	
Moderate (3)  Moderately low (2)	mod	disturbance tolerant native Native spp are dominant co	e species
Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		1	
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	A predominance of native s and/or disturbance tolerar absent, and high spp dive	
Nearly absent <5% cover (0)  Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2	
Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo	<u> </u>
Standing dead >25cm (10in) dbh		Triight Tha (0.00 acres) of file	
Amphibian breeding pools	Microtopogi	aphy Cover Scale	
	0	Absent	
	1	Present very small amounts	s or if more common
		of marginal quality	ata, but not of bishoot
	2	Present in moderate amour quality or in small amount	=
	3	Present in moderate or grea	
GRAND TOTAL (max 100 pts)		and of highest quality	

Site: Fir	rstEne	rgy Holloway-Knox 138kV <b>Rater(s):</b> M. Thomayer, T. Qualio	<b>Date:</b> 6/07/2018
	1	Metric 1. Wetland Area (size).	w-mdt-06/07/2018-04
max 6 pts.	subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   ✓ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   <0.1 acres (0.04ha) (0 pts)	
8	0	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field. (3)
7	16	Metric 3. Hydrology.	
max 30 pts.	subtotal	Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  Part of wetland/up Part of vetland/up Part of vetland/up Part of riparian or Semi- to permane Regularly inundate Seasonally inundate	n (1)  ake and other human use (1)  aland (e.g. forest), complex (1)  upland corridor (1)  rration. Score one or dbl check.  ntly inundated/saturated (4)  ed/saturated (3)  ated (2)  ted in upper 30cm (12in) (1)  stormwater)
8	24	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal  24	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  Recovered (6)  Recent or no recovery (1)  Check all disturbances observed    ✓ mowing	ic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-14
Site: FirstEnergy Holloway-Knox 138kV Rater(	<b>s):</b> M. Tho	omayer, T. Qualio	<b>Date:</b> 6/07/2018
24 subtotal first page			w-mdt-06/07/2018-04
0 24 Metric 5. Special Wetlan	ds.		
Check all that apply and score as indicated.  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland (5)  Lake Erie coastal/tributary wetland-re  Lake Plain Sand Prairies (Oak Open  Relict Wet Prairies (10)  Known occurrence state/federal thre  Significant migratory songbird/water  Category 1 Wetland. See Question	nrestricted hyd estricted hydrol ings) (10) atened or enda fowl habitat or	ngered species (10) usage (10)	
3 27 Metric 6. Plant communi	ities, int	erspersion, mici	rotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.	-	Community Cover Scale	a (0.2471 acres) contiguous area
Aquatic bed  1 Emergent Shrub	1	Present and either comprise	es small part of wetland's erate quality, or comprises a
Forest Mudflats Open water	2	vegetation and is of mode part and is of high quality	es significant part of wetland's erate quality or comprises a small
Other  6b. horizontal (plan view) Interspersion.	3	Present and comprises sign vegetation and is of high of	ificant part, or more, of wetland's quality
Select only one.			
High (5) Moderately high(4) Moderate (3)	low	Low spp diversity and/or pre- disturbance tolerant native	edominance of nonnative or e species
Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add	mod	1	r disturbance tolerant native spp species diversity moderate to erally w/o presence of rare
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	A predominance of native s and/or disturbance tolerar absent, and high spp dive	
Nearly absent <5% cover (0)  ✓ Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres	<u> </u>
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2	
1 Vegetated hummucks/tussucks	3	Moderate 1 to <4ha (2.47 to	<u> </u>
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or mo	JI C
Amphibian breeding pools	Microtopog	raphy Cover Scale	
	0	Absent	
	1	Present very small amounts	s or if more common
		of marginal quality	
	2	Present in moderate amour	nts, but not of highest
		quality or in small amount	
	3	Present in moderate or great and of highest quality	ater amounts
27 GRAND TOTAL (max 100 pts)			

Site: F	irstEne	gy Holloway-Knox 138kV R	ater(s): M. Thomayer, T. Qualio	<b>Date:</b> 6/07/2018
max 6 pts.	1 subtotal	Metric 1. Wetland Are Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2  10 to <25 acres (4 to <10.1ha)  3 to <10 acres (1.2 to <4ha) (3  0.3 to <3 acres (0.12 to <1.2ha)	ha) (5 pts) (4 pts) 3 pts) a) (2pts)	w-mdt-06/07/2018-0
8 max 14 pts.	9 subtotal	2a. Calculate average buffer width. Sele WIDE. Buffers average 50m (  MEDIUM. Buffers average 25 NARROW. Buffers average 1 VERY NARROW. Buffers average 2  b. Intensity of surrounding land use. Selection of the	ers and surrounding land use. ect only one and assign score. Do not double check. (164ft) or more around wetland perimeter (7) m to <50m (82 to <164ft) around wetland perimeter (4) 0m to <25m (32ft to <82ft) around wetland perimeter (1) erage <10m (<32ft) around wetland perimeter (0)	
7	16	Metric 3. Hydrology.		
max 30 pts.	subtotal		and the properties of the pro	in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1)
8	24	Metric 4. Habitat Alte	ration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one of None or none apparent (4)  ✓ Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only of Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  ✓ Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or douted the selection of	ne and assign score.	noval
SU	24  ubtotal this pa	Recovering (3) Recent or no recovery (1)	y grazing herbaceous/aqual sedimentation dredging woody debris removal toxic pollutants herbaceous/aqual sedimentation dredging farming nutrient enrichment	itic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-15
	s): M. Th	omayer, T. Qualio	<b>Date:</b> 6/07/2018
24 subtotal first page			w-mdt-06/07/2018-08
0 24 Metric 5. Special Wetlan	ds		
max 10 pts. subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-u Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water	nrestricted hydestricted hydroings) (10)	angered species (10)	
Category 1 Wetland. See Question Metric 6. Plant communi			rotopography.
max 20 pts. subtotal  6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed  1 Emergent  Shrub  Forest  Mudflats  Open water  Other  6b. horizontal (plan view) Interspersion.  Select only one.  High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)  V None (0)  6c. Coverage of invasive plants. Refer	2	Present and either comprise vegetation and is of mode significant part but is of lo Present and either comprise vegetation and is of mode part and is of high quality Present and comprises sign vegetation and is of high cescription of Vegetation Qual Low spp diversity and/or predisturbance tolerant native Native spp are dominant co although nonnative and/or can also be present, and	erate quality, or comprises a we quality es significant part of wetland's erate quality or comprises a small inficant part, or more, of wetland's quality eldominance of nonnative or e species
to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks  Coarse woody debris >15cm (6in)  Standing dead >25cm (10in) dbh  Amphibian breeding pools	0 1 2 3	A predominance of native s and/or disturbance tolerar absent, and high spp dive	d spp pecies, with nonnative spp nt native spp absent or virtually ersity and often, but not always, atened, or endangered spp  s) .47 acres) o 9.88 acres) ore
GRAND TOTAL (max 100 pts)	3	Present in moderate amount quality or in small amount Present in moderate or great and of highest quality	s of highest quality

Site: F	irstEne	<b>Date:</b> 6/07/2018	
2	2	Motrie 1 - Wetland Area (cize)	w-mdt-06/07/2018-0
max 6 pts.	subtotal	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  √ 0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)	
7	9	Metric 2. Upland buffers and surrounding land use	<b>).</b>
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fall the properties of the propertie	1)
14	23	Metric 3. Hydrology.	
max 30 pts.	subtotal	✓ Precipitation (1)       ✓ Part of wetland         ✓ Seasonal/Intermittent surface water (3)       ✓ Part of riparian         3c. Maximum water depth. Select only one and assign score.       Semi- to perma         >0.7 (27.6in) (3)       Regularly inunction         ✓ 1.4 to 0.7m (15.7 to 27.6in) (2)       ✓ Seasonally inunction         ✓ 2.4m (<15.7in) (1)	plain (1) m/lake and other human use (1) /upland (e.g. forest), complex (1) or upland corridor (1) aturation. Score one or dbl check. anently inundated/saturated (4) lated/saturated (3) ndated (2) urated in upper 30cm (12in) (1)
9	32	Recovering (3) Recent or no recovery (1)  tile dike weir dredging stormwater input  Motric 4  Habitat Alteration and Dovolopment	ack
max 20 pts.	subtotal	Metric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average.	
		None or none apparent (4)  ✓ Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  ✓ Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.	
sı	32	Recent or no recovery (1)    Clearcutting   ✓ sedimentation     ✓ selective cutting   dredging     woody debris removal   farming     toxic pollutants   ✓ nutrient enrichr	uatic bed removal

Site: FirstEne	rgy Holloway-Knox 138kV <b>F</b>	Rater(s): M. The	omayer, T. Qualio	<b>Date:</b> 6/07/2018
32	]			w-mdt-06/07/2018-07
subtotal first pa	Metric 5. Special Wo	etlands.		
max 10 pts. subtotal	Check all that apply and score as indice  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland (5)  Lake Erie coastal/tributary wetlake Erie coastal/tributary wetlake Plain Sand Prairies (Orne Relict Wet Prairies (10)  Known occurrence state/fed  Significant migratory songbing  Category 1 Wetland. See Q	retland-unrestricted hydrotetland-restricted hydrotek Openings) (10) eral threatened or endard/water fowl habitat or	ngered species (10) usage (10)	
-1 31	Metric 6. Plant com	munities. int	erspersion. micro	otopography.
max 20 pts. subtotal	6a. Wetland Vegetation Communities	•	Community Cover Scale	
	Score all present using 0 to 3 scale.	0		(0.2471 acres) contiguous area
	Aquatic bed 1 Emergent	1	Present and either comprises vegetation and is of modera	ate quality, or comprises a
	Shrub		significant part but is of low	
	Forest Mudflats	2	Present and either comprises	ate quality or comprises a small
	Open water		part and is of high quality	the quality of comprises a small
	Other6b. horizontal (plan view) Interspersio	3 n.	1	icant part, or more, of wetland's
	Select only one.			
	High (5)		escription of Vegetation Quali	
	Moderately high(4) Moderate (3)	low	Low spp diversity and/or pred disturbance tolerant native	
	Moderately low (2)	mod	Native spp are dominant com	•
	Low (1)		1	disturbance tolerant native spp
	✓ None (0)		can also be present, and sp	•
	6c. Coverage of invasive plants. Refe		moderately high, but genera	
	to Table 1 ORAM long form for list. Ac or deduct points for coverage	high	threatened or endangered s  A predominance of native spe	• •
	Extensive >75% cover (-5)	riigii		native spp absent or virtually
	✓ Moderate 25-75% cover (-3)			sity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threat	ened, or endangered spp
	Nearly absent <5% cover (0)		0	
	Absent (1) 6d. Microtopography.	Mudifiat and	Open Water Class Quality Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.4	
	1 Vegetated hummucks/tussu	cks 2	Moderate 1 to <4ha (2.47 to	
	Coarse woody debris >15cm		High 4ha (9.88 acres) or more	3
	Standing dead >25cm (10in)		ranhy Cayar Saala	
	Amphibian breeding pools	<u>Microtopog</u> 0	raphy Cover Scale Absent	
		1	Present very small amounts of	or if more common
			of marginal quality	
		2	Present in moderate amounts	=
		3	quality or in small amounts	
<del></del> 1		S	Present in moderate or greate and of highest quality	amounts
31 GRAN	ND TOTAL (max 100 pts)		and or might sor quality	

ırst⊵ne	rgy Holloway-Knox 138kV <b>Rater(s):</b> M. Thomayer, T. Qualio	<b>Date:</b> 6/07/2018
0	Metric 1. Wetland Area (size).	w-mdt-06/07/2018-06
subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   ✓ <0.1 acres (0.04ha) (0 pts)	
8	Metric 2. Upland buffers and surrounding land use.	
subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallo HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	w field. (3)
18	Metric 3. Hydrology.	
subtotal	High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3d. Duration inundation/satu  3c. Maximum water depth. Select only one and assign score.  Semi- to permane  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  V <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12)  Recovered (7)  Recovering (3)  100 year floodplai  Between stream/li  Part of wetland/up  Part of vetland/up  Part of wetland/up  Part of riparian or  Semi- to permane  Semi- to perm	n (1) ake and other human use (1) aland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ed/saturated (3) ated (2) ted in upper 30cm (12in) (1)
27	Metric 4. Habitat Alteration and Development.	
subtotal	Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Reco	tic bed removal
	Subtotal  8 subtotal  18 subtotal	Metric 1. Wetland Area (size).  Select one size class and assign score.    Sol acres (2-02 /ba) (6 pts)

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-17
Š	<b>s):</b> M. Tho	mayer, T. Qualio	<b>Date:</b> 6/07/2018
27 subtotal first page			w-mdt-06/07/2018-06
0 27 Metric 5. Special Wetlan	ds.		
max 10 pts. subtotal Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water in Category 1 Wetland. See Question 2	nrestricted hydrologs) (10) atened or endal fowl habitat or u	ngered species (10) usage (10)	
-4 23 Metric 6. Plant communi			rotopography.
fa. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed  Emergent Shrub Forest Mudflats Open water Other Other  6b. horizontal (plan view) Interspersion.  Select only one.  High (5) Moderately high(4) Moderate (3) Moderately low (2) Low (1)  V None (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-3)	Vegetation C 0 1 2	Absent or comprises <0.1ha Present and either comprises vegetation and is of mode significant part but is of low Present and either comprise vegetation and is of mode part and is of high quality Present and comprises sign vegetation and is of high comprises to the service of	a (0.2471 acres) contiguous area es small part of wetland's erate quality, or comprises a w quality es significant part of wetland's erate quality or comprises a small entity elity edominance of nonnative or e species mponent of the vegetation, or disturbance tolerant native spp especies diversity moderate to erally w/o presence of rare a spp pecies, with nonnative spp nt native spp absent or virtually rsity and often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools	0 1 2 3	the presence of rare, threa  Open Water Class Quality  Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2)  Moderate 1 to <4ha (2.47 to 2)  High 4ha (9.88 acres) or moderate  Absent  Present very small amounts of marginal quality  Present in moderate amount quality or in small amounts  Present in moderate or greater	.47 acres) b 9.88 acres) ore s or if more common ots, but not of highest s of highest quality
23 GRAND TOTAL (max 100 pts)		and of highest quality	

Site: F	<b>Date:</b> 6/07/2018		
0	0	   Metric 1. Wetland Area (size).	w-mdt-06/07/2018-0
max 6 pts.	subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   <0.1 acres (0.04ha) (0 pts)	
4	4	Metric 2. Upland buffers and surrounding land use.	•
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fall  ✓ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
10	14	Metric 3. Hydrology.	
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  ✓ Precipitation (1)  ✓ Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  3b. Connectivity. Score all  100 year floodpla  Between stream.  ✓ Part of wetland/u  ✓ Part of riparian o  3d. Duration inundation/sat  Semi- to perman  Regularly inunda  Seasonally inunda  Seasonally inunda	ain (1) /lake and other human use (1) /lake and other human use (1) /laland (e.g. forest), complex (1) /r upland corridor (1) /turation. Score one or dbl check. //ently inundated/saturated (4) //ted/saturated (3)
_		None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Recovering (3) Recovering (4) Recovering (4) Recovering (4) Recovering (5) Recovering (5) Recovering (6) Recovering (	·
7	21	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	<ul> <li>4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)</li> <li>4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)</li> <li>4c. Habitat alteration. Score one or double check and average.</li> </ul>	
SI	21	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Recent or no recovery (1)  Check all disturbances observed  mowing Sprazing Sprazin	atic bed removal

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-18
	<b>s):</b> M. Th	omayer, T. Qualio	<b>Date</b> : 6/07/2018
21 subtotal first page			w-mdt-06/07/2018-05
0 21 Metric 5. Special Wetlan	de		
max 10 pts. subtotal Check all that apply and score as indicated.	us.		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ngs) (10) atened or enda fowl habitat or	angered species (10) usage (10)	
2 23 Metric 6. Plant communi			rotopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.		Community Cover Scale	(0.0474
Score all present using 0 to 3 scale.  Aquatic bed	0 1	Present and either comprise	a (0.2471 acres) contiguous area
1 Emergent		•	erate quality, or comprises a
Shrub		significant part but is of lo	• •
Forest Mudflats	2	•	es significant part of wetland's erate quality or comprises a small
Open water		part and is of high quality	rate quality of comprises a small
Other	3	-	nificant part, or more, of wetland's
6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high of	quanty
High (5)	Narrative D	escription of Vegetation Qua	ality
Moderately high(4)	low	Low spp diversity and/or pre	
Moderate (3)  Moderately low (2)	mod	Native spp are dominant co	·
Low (1)	mou	1 '''	r disturbance tolerant native spp
✓ None (0)		•	species diversity moderate to
6c. Coverage of invasive plants. Refer		moderately high, but gene	
to Table 1 ORAM long form for list. Add or deduct points for coverage	high	threatened or endangered A predominance of native s	
Extensive >75% cover (-5)	3		nt native spp absent or virtually
Moderate 25-75% cover (-3)			rsity and often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threa	atened, or endangered spp
Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres	s)
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2	
Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	3	Moderate 1 to <4ha (2.47 to High 4ha (9.88 acres) or mo	
Standing dead >25cm (10in) dbh		Triight ma (0.00 acros) of me	
Amphibian breeding pools		raphy Cover Scale	
	0	Absent Present very small amounts	c or if more common
	I	of marginal quality	on it more common
	2	Present in moderate amoun	nts, but not of highest
		quality or in small amount	
<del></del>	3	Present in moderate or great and of highest quality	ater amounts
23 GRAND TOTAL (max 100 pts)		and or highest quality	

Site: FirstEr	ergy Holloway-Knox 138kV	Rater(s): M. Thomayer, B.Otto	Date: 6/11/2018
	7		w-bao-6/11/2018-01
1 1	Metric 1. Wetland A	rea (size).	
max 6 pts. subtot	Select one size class and assign sco >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 √ 0.1 to <0.3 acres (0.04 to < 0.1 acres (0.04ha) (0 pts)	) 20.2ha) (5 pts) Iha) (4 pts) a) (3 pts) .2ha) (2pts) :0.12ha) (1 pt)	
3 4	Metric 2. Upland bu	iffers and surrounding land us	<b>e.</b>
max 14 pts. subtot	2a. Calculate average buffer width.  WIDE. Buffers average 50  MEDIUM. Buffers average  NARROW. Buffers average  VERY NARROW. Buffers  2b. Intensity of surrounding land use  VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Research	Select only one and assign score. Do not double check. Im (164ft) or more around wetland perimeter (7) a 25m to <50m (82 to <164ft) around wetland perimeter (4) the 10m to <25m (32ft to <82ft) around wetland perimeter average <10m (<32ft) around wetland perimeter (0) a. Select one or double check and average. In older forest, prairie, savannah, wildlife area, etc. (7) and a start of the savannah, forest. (5) sidential, fenced pasture, park, conservation tillage, new form pen pasture, row cropping, mining, construction. (1)	) (1)
10.5 14.	Metric 3. Hydrology	<i>1</i> .	
max 30 pts. subtot	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surfa Perennial surface water (la 3c. Maximum water depth. Select or >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <ul> <li>&lt;0.4m (&lt;15.7in) (1)</li> </ul>	t apply.  3b. Connectivity. Score  100 year flood Between strea Part of wetland Part of ripariar Acce water (3) Acce water (3) Between strea Part of wetland Part of ripariar Acce water (3) Acce water (3) Acce water (3) Between strea Part of ripariar Acce water (3) Acce water (4) Acce water	plain (1) m/lake and other human use (1) d/upland (e.g. forest), complex (1) n or upland corridor (1) saturation. Score one or dbl check. anently inundated/saturated (4) dated/saturated (3) indated (2) turated in upper 30cm (12in) (1)
8 22.	☐ Metric 4. Habitat Al	teration and Development.	
max 20 pts. subtot		ne or double check and average.	
22.	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed  ✓ mowing shrub/sapling	quatic bed removal

Site: FirstEn	ergy Holloway-Knox 138kV	Rater(s): M. Th	omayer, B.Otto	<b>Date:</b> 6/11/2018
22.5	5			w-bao-6/11/2018-0
subtotal first	page			
0 22.5	Metric 5. Special W	letlands.		
max 10 pts. subtotal	<b>=</b>			
max to pts. Subtotal	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary Lake Erie coastal/tributary Lake Plain Sand Prairies ( Relict Wet Prairies (10) Known occurrence state/fe Significant migratory song Category 1 Wetland. See	wetland-unrestricted hywetland-restricted hydro wetland-restricted hydro Oak Openings) (10) ederal threatened or end bird/water fowl habitat or	angered species (10)	
2 24.5	Metric 6. Plant con	nmunities int	erspersion micro	tonography
max 20 pts. subtotal	<b>-</b>	•	Community Cover Scale	opograpny.
max 20 pts. Subtotal	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.	2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises s	
	1 Emergent		vegetation and is of moderate	
	Shrub Forest	2	significant part but is of low queries and either comprises significant part but is of low queries.	
	Mudflats	2	vegetation and is of moderate	-
	Open water		part and is of high quality	1 7
	Other	3	Present and comprises significa	
	6b. horizontal (plan view) Interspers	ion.	vegetation and is of high qual	ity
	Select only one. High (5)	Narrative D	escription of Vegetation Quality	1
	Moderately high(4)	low	Low spp diversity and/or predor	
	Moderate (3)	·	disturbance tolerant native sp	
	Moderately low (2)	mod	Native spp are dominant compo	=
	Low (1)  ✓ None (0)		although nonnative and/or dis can also be present, and spec	
	6c. Coverage of invasive plants. Re	efer	moderately high, but generally	*
	to Table 1 ORAM long form for list.	Add	threatened or endangered spr	
	or deduct points for coverage	high	A predominance of native speci	
	Extensive >75% cover (-5)		and/or disturbance tolerant na	, ,
	Moderate 25-75% cover (- ✓ Sparse 5-25% cover (-1)	3)	absent, and high spp diversity the presence of rare, threaten	-
	Nearly absent <5% cover	(0)	,, ,, ,,	, and a second s
	Absent (1)		d Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale.  1 Vegetated hummucks/tuss	sucks 1	Low 0.1 to <1ha (0.247 to 2.47) Moderate 1 to <4ha (2.47 to 9.8	·
	Coarse woody debris >150		High 4ha (9.88 acres) or more	30 40100)
	Standing dead >25cm (10			
	1 Amphibian breeding pools	Microtopog	graphy Cover Scale	
		0	Absent Present years amall amounts or	if mara common
		1	Present very small amounts or of marginal quality	n more common
		2	Present in moderate amounts, b	out not of highest
			quality or in small amounts of	=
		3	Present in moderate or greater	amounts
24 5 604	ND TOTAL (max 100 pts)		and of highest quality	
I ムーTi ひ I はだみ	IND I O I WE IIIIAX I DO DISI	1		

Site: F	irstEne	ergy Holloway-Knox 138kV Rater(s): M. Thomayer, B.Otto	<b>Date:</b> 6/11/2018
0	0	1	w-bao-6/11/2018-03
0	0	Metric 1. Wetland Area (size).	
max 6 pts.	subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)    <0.1 acres (0.04ha) (0 pts)	
7	7	Metric 2. Upland buffers and surrounding lar	nd use.
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland pe NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland pe VERY NARROW. Buffers average <10m (<32ft) around wetland perimete 2b. Intensity of surrounding land use. Select one or double check and average.  ✓ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, et LOW. Old field (>10 years), shrubland, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tillar Jensel HIGH. Urban, industrial, open pasture, row cropping, mining, construction.	le check.  rimeter (4) perimeter (1) r (0)  tc. (7)  age, new fallow field. (3)
12	19	Metric 3. Hydrology.	
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)   Seasonal/Intermittent surface water (3)  Part  Part  Part  Part  Part  Part  Part  Part  Sem  Sem  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  V <0.4m (<15.7in) (1)  Seasonal/Intermittent surface water (3)  Part  Part  Part  Part  Check all disturbances observed  All disturbances observed  Recovered (7)  Recovering (3)  filling  filling	t source (nonstormwater) g/grading bed/RR track ging
8	27	Metric 4. Habitat Alteration and Developmen	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  Recovering (3)  Check all disturbances observed  mowing grazing  shrul pherb.	b/sapling removal aceous/aquatic bed removal mentation
SI	27 ubtotal this pa	woody debris removal farm toxic pollutants nutric	S S

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-20
	<b>s):</b> M. Tho	mayer, B.Otto	<b>Date:</b> 6/11/2018
27 subtotal first page			w-bao-6/11/2018-03
0 27 Metric 5. Special Wetlan	ds.		
max 10 pts. subtotal  Check all that apply and score as indicated.  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland (5)  Lake Erie coastal/tributary wetland-re  Lake Plain Sand Prairies (Oak Openi  Relict Wet Prairies (10)  Known occurrence state/federal three  Significant migratory songbird/water  Category 1 Wetland. See Question	nrestricted hydrologings) (10) atened or endar fowl habitat or u	nggy (5) ngered species (10) sage (10)	
2 29 Metric 6. Plant communi			ppography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	•	ommunity Cover Scale	, p = 9p
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.24	171 acres) contiguous area
Aquatic bed  1 Emergent Shrub	1	Present and either comprises sma vegetation and is of moderate q significant part but is of low qua	uality, or comprises a
Forest Mudflats Open water	2	Present and either comprises sign vegetation and is of moderate q part and is of high quality	
Other6b. horizontal (plan view) Interspersion.	3	Present and comprises significant vegetation and is of high quality	
Select only one.			
High (5)	Narrative De	scription of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or predomin	
Moderate (3)		disturbance tolerant native spec	
Moderately low (2)	mod	Native spp are dominant compone	•
Low (1)  None (0)		although nonnative and/or distucan also be present, and specie	
6c. Coverage of invasive plants. Refer		moderately high, but generally w	•
to Table 1 ORAM long form for list. Add		threatened or endangered spp	We presented of fare
or deduct points for coverage	high	A predominance of native species	s, with nonnative spp
Extensive >75% cover (-5)	· ·	and/or disturbance tolerant nativ	
Moderate 25-75% cover (-3)		absent, and high spp diversity a	nd often, but not always,
✓ Sparse 5-25% cover (-1)		the presence of rare, threatened	d, or endangered spp
Nearly absent <5% cover (0)			_
Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 ac	
1 Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88	acres)
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	
Standing dead >25cm (10in) dbh	Mioreteness	anhy Cover Seels	
1 Amphibian breeding pools		Absent	
	0	Present very small amounts or if r	more common
	ı	of marginal quality	HOLE COMMON
	2	Present in moderate amounts, bu	t not of highest
	4	quality or in small amounts of hi	
	3	Present in moderate or greater an	
	5	and of highest quality	TO GITTO
29 GRAND TOTAL (max 100 pts)			

Site: FirstEnergy Holloway-Knox 138kV			Rater(s): M. Thomayer, B.Otto		<b>Date:</b> 6/11/2018	
	0			v	v-bao-6/11/2018-02	
0	0	Metric 1. Wetland	• •			
max 6 pts.	subtotal	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) <0.12ha) (1 pt)			
8	8	Metric 2. Upland be	uffers and surround	ing land use		
max 14 pts.	subtotal	WIDE. Buffers average 5  WIDE. Buffers average 5  MEDIUM. Buffers average 5  NARROW. Buffers average 5  VERY NARROW. Buffers average 5  VERY LOW. Date of surrounding land us 5  VERY LOW. 2nd growth 1  WODERATELY HIGH. Re	Select only one and assign score. E Om (164ft) or more around wetland portion of the selection of the selec	erimeter (7) I wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fall		
12	20	Metric 3. Hydrolog	v.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5)  Other groundwater (3)  ✓ Precipitation (1)  ✓ Seasonal/Intermittent surfine Perennial surface water (I)  3c. Maximum water depth. Select (I)  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in)  ✓ <0.4m (<15.7in) (1)  3e. Modifications to natural hydrolo  None or none apparent (1)  ✓ Recovered (7)	at apply.  Sace water (3) ake or stream) (5) only one and assign score.  a) (2) gic regime. Score one or double chemical streams of the stream of the streams of the stream	Part of wetland/u  Part of riparian of part of	ain (1) //lake and other human use (1) //lake and other for complex (1) //lake and other human use (1) //lake and other huma	
		Recovering (3) Recent or no recovery (1)	tile dike weir stormwater input	✓ filling/grading road bed/RR trac dredging other_	ck	
8	28		Iteration and Develo	pment.		
max 20 pts.	subtotal	<ul> <li>4a. Substrate disturbance. Score of None or none apparent (4</li> <li>✓ Recovered (3)</li> <li>Recovering (2)</li> <li>Recent or no recovery (1)</li> <li>4b. Habitat development. Select or Excellent (7)</li> <li>✓ Very good (6)</li> <li>Good (5)</li> <li>Moderately good (4)</li> <li>Fair (3)</li> <li>✓ Poor to fair (2)</li> <li>Poor (1)</li> <li>4c. Habitat alteration. Score one or</li> </ul>	nly one and assign score.			
51	28	None or none apparent (9 Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichme	atic bed removal	

ORAM v. 5.0 Field Form Quantitative Rating			Wetland PB-21
	<b>s):</b> M. Th	omayer, B.Otto	<b>Date:</b> 6/11/2018
28 subtotal first page			w-bao-6/11/2018-02
0 00	do		
max 10 pts. subtotal Check all that apply and score as indicated.	us.		
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydro ings) (10) atened or enda fowl habitat or	angered species (10) usage (10)	
-1 27 Metric 6. Plant communi	ties, int	erspersion, micr	otopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation 0	Absent or comprises <0 1ha	(0.2471 acres) contiguous area
Score all present using 0 to 3 scale.  Aquatic bed  Emergent	1	Present and either comprises vegetation and is of moder	s small part of wetland's rate quality, or comprises a
Shrub Forest Mudflats	2	vegetation and is of moder	s significant part of wetland's rate quality or comprises a small
Open water Other  6b. horizontal (plan view) Interspersion.	3	part and is of high quality  Present and comprises signi  vegetation and is of high quality	ficant part, or more, of wetland's
Select only one.		vegetation and is of high q	uanty
High (5) Moderately high(4) Moderate (3)	Narrative D	Low spp diversity and/or predisturbance tolerant native	dominance of nonnative or
Moderately low (2) Low (1)  ✓ None (0)	mod	can also be present, and s	disturbance tolerant native spp pecies diversity moderate to
6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but gener threatened or endangered	
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	A predominance of native sp and/or disturbance tolerant	t native spp absent or virtually sity and often, but not always,
Nearly absent <5% cover (0) Absent (1)	Mudflet en	l Open Water Class Quality	geres epp
6d. Microtopography.	0	Absent <0.1ha (0.247 acres	)
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.4	
Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to	
Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	re
Standing dead >25cm (10in) dbh Amphibian breeding pools	Microtopos	ranhy Cayar Saala	
Amphibian breeding pools	0	raphy Cover Scale Absent	
	1	Present very small amounts	or if more common
	•	of marginal quality	
	2	Present in moderate amount quality or in small amounts	=
	3	Present in moderate or great and of highest quality	
27 GRAND TOTAL (max 100 pts)		, , , , , , , , , , , , , , , , , , ,	

Site: F	irstEne	rgy Holloway-Knox 138kV Rater(s): M. Thomayer, B.Otto	<b>Date:</b> 6/12/2018
0	0	Metric 1. Wetland Area (size).	w-mdt-06/12/2018-03
max 6 pts.	subtotal	Select one size class and assign score.    >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2ha) (5 pts)   10 to <25 acres (4 to <10.1ha) (4 pts)   3 to <10 acres (1.2 to <4ha) (3 pts)   0.3 to <3 acres (0.12 to <1.2ha) (2pts)   0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)   ✓ <0.1 acres (0.04ha) (0 pts)	
8	8	Metric 2. Upland buffers and surrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  ✓ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  ✓ LOW. Old field (>10 years), shrubland, young second growth forest. (5)  ✓ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new falled HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
12	20	Metric 3. Hydrology.	
max 30 pts.	subtotal	✓ Precipitation (1) Part of wetland/u   ✓ Seasonal/Intermittent surface water (3) ✓ Part of riparian of Part of Part of riparian of Part of Pa	uin (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3) lated (2) ated in upper 30cm (12in) (1)
8	28	Metric 4. Habitat Alteration and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  Recovered (6)  Recovering (3)  Recent or no recovery (1)  Recent or no recovery (1)	
s	28 ubtotal this pa	selective cutting woody debris removal toxic pollutants dredging farming nutrient enrichments	ent

Metric 5. Special Wetlands.
Metric 5. Special Wetlands.  Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Matture forested wetland (5) Lake Eric coastal/tributary wetland-unrestricted hydrology (10) Lake Eric coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (0ak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10)  Metric 6. Plant communities, interspersion, microtopography.  Score all present using 0 to 3 scale.  Aquatic bed  Fenergent Shrub Forest Mudflats Open water Other
Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Eric coastal/flibutary wetland-unrestricted hydrology (10) Lake Eric coastal/flibutary wetland-restricted hydrology (5) Lake Plain Sand Prairies (0ak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10)  Metric 6. Plant communities, interspersion, microtopography.  Score all present using 0 to 3 scale. Aquatic bed Emergent Shrub Forest Hudflats Open water Other Other Select only one. High (5) Moderately low (2) Low (1) Vone (0) Caccoverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Check all that apply and score as indicated.  Bog (10) Ratic Eric (20) Relict Wet Prairies (10) Mature forested hydrology (10) Lake Eric coastal/flutary wetland-restricted hydrology (10) Lake Eric coastal/flutary wetland-restricted hydrology (10) Lake Eric coastal/flutary wetland-restricted hydrology (10) Lake Eric coastal/flutary wetland-unrestricted hydrology (10) Lake Eric coastal/flutary wetland-restricted hydrology (10) Relict Wet Prairest (10) Relict Wet Prairest (10) Absent or comprises (10) Absent or c
The control of the co
Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Eric coastal/tributary wetland-unrestricted hydrology (10) Lake Eric coastal/tributary wetland-restricted hydrology (5) Lake Eric coastal/tributary wet
max 20 pts. Subtotal Subtotal Score all present using 0 to 3 scale.  Aquatic bed 1 Emergent Shrub Shr
Subtotal  6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.  Aquatic bed  1 Emergent Shrub Forest Open water of wetland's vegetation and is of moderate quality Open water open to it wetland's Vegetation and is of moderate quality Open water open to it wetland's Vegetation and is of moderate quality Open water open to it wetland's Vegetation and is of high quality Open water Open water Open water Open water Open water open and is of high quality Open water
Score all present using 0 to 3 scale.  Aquatic bed  Emergent Shrub Forest Open water Open water Other High (5) Moderately high(4) Moderately low (2) Low (1) Vone (0)  Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Aquatic bed 1 Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality  Present and either comprises significant part of wetland vegetation and is of moderate quality or comprises a part and is of high quality  Present and comprises significant part, or more, of wet vegetation and is of high quality  Narrative Description of Vegetation Quality  Narrative Description of Vegetation Quality  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
Aquatic bed  I Emergent Shrub Forest Open water Other Other High (5) Moderately high(4) Moderately low (2) Low (1) Vone (0)  Refer to Table 1 ORAM long form for list. Add  I Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality  I Present and either comprises significant part of wetland vegetation and is of moderate quality or comprises a part and is of high quality  I Present and either comprises significant part of wetland vegetation and is of home quality  I Present and either comprises significant part of wetland vegetation and is of moderate quality or comprises a part and is of high quality  I Present and either comprises significant part of wetland vegetation and is of moderate quality or comprises a part and is of high quality  I Present and either comprises and low quality  Present and either comprises and low quality  I Present and either comprises and low quality  Present and either comprises and low quality  I Present and either comprises and low quality  Present and either comprises and low plant to five detain on a los of high quality  Present and either comprises and low plant to moderate quality or comprises and low plant and is of high quality  Present and eithe comprises and low plant to moderate quality or comprises a
Shrub Forest Mudflats Open water Other 6b. horizontal (plan view) Interspersion. Select only one. High (5) Moderately high(4) Moderately low (2) Low (1) Vnone (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Significant part but is of low quality  12 Present and either comprises significant part of wetland vegetation and is of high quality  13 Present and comprises significant part, or more, of wet vegetation and is of high quality  14 Vegetation and is of high quality  15 Vegetation and is of high quality  16 Vegetation and is of high quality  17 Vegetation and is of high quality  18 Vegetation and is of high quality  19 Vegetation and is of high quality  10 Vegetati
Forest Mudflats Open water Other 6b. horizontal (plan view) Interspersion. Select only one.  High (5) Moderately high(4) Moderately low (2) Low (1) Vone (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Present and either comprises significant part of wetland vegetation and is of moderate quality or comprises a part and is of high quality  Present and comprises significant part, or more, of wet vegetation and is of high quality  Negetation and is of high quality
Mudflats Open water Other Other Select only one.  High (5) Moderately high(4) Moderately low (2) Low (1) Vone (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Mudflats  vegetation and is of moderate quality or comprises a part and is of high quality  Vegetation and is of high quality  Negetation and is of moderate quality or comprises a part and is of high quality  Negetation and is of high quality  Narrative Description of Vegetation Quality  Low Spp diversity and/or predominance of nonnative or disturbance tolerant native species  mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
Open water Other
Other
Select only one.  High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)  Variative Description of Vegetation Quality  Iow Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)  None (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Moderately high(4)  Iow Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Moderately low (2)  mod Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)  None (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Moderately high(4)  Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Moderately low (2)  mod  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
Moderately low (2) Low (1) None (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add  Mative spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
Low (1) None (0) Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add although nonnative and/or disturbance tolerant native can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
None (0)  6c. Coverage of invasive plants. Refer  to Table 1 ORAM long form for list. Add  can also be present, and species diversity moderate moderately high, but generally w/o presence of rare threatened or endangered spp
6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp
ů i
or deduct points for coverage high I A predominance of native species, with nonnative species.
Extensive >75% cover (-5)  and/or disturbance tolerant native spp absent or virtu  absent, and high spp diversity and often, but not alwa
Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp
Nearly absent <5% cover (0)
Absent (1)  Mudflat and Open Water Class Quality  O Absent <0.1ha (0.247 acres)
Score all present using 0 to 3 scale.  1 Low 0.1 to <1ha (0.247 acres)
Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more
Standing dead >25cm (10in) dbh
Amphibian breeding pools  Microtopography Cover Scale  0 Absent
1 Present very small amounts or if more common
of marginal quality
Present in moderate amounts, but not of highest
quality or in small amounts of highest quality
3 Present in moderate or greater amounts and of highest quality
30 GRAND TOTAL (max 100 pts)

Site: F	irstEne	gy Holloway-Knox 138kV	Rater(s): M. Thomayer, I	B.Otto	<b>Date:</b> 6/12/2018
0	0				w-mdt-06/12/2018-0
0	0	Metric 1. Wetland A	rea (size).		W-11101-00/12/2010-0
max 6 pts.	subtotal	Select one size class and assign score  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20  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	0.2ha) (5 pts) na) (4 pts) (3 pts) 2ha) (2pts)		
8	8	Metric 2. Upland bu	ffers and surroundi	ing land use.	
max 14 pts.	subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a  2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years). MODERATELY HIGH. Res	n (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around 1verage <10m (<32ft) around wetlan	erimeter (7) wetland perimeter (4) ad wetland perimeter (1) ad perimeter (0) verage. llife area, etc. (7) prest. (5) ervation tillage, new fallo	ow field. (3)
14	22	Metric 3. Hydrology			
max 30 pts.	subtotal	3a. Sources of Water. Score all that  High pH groundwater (5)  ✓ Other groundwater (3)  ✓ Precipitation (1)  Seasonal/Intermittent surface  Perennial surface water (lake)  3c. Maximum water depth. Select on  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in)  ✓ <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic	ce water (3) e or stream) (5) ly one and assign score.  (2) c regime. Score one or double check	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat  V Seasonally satura	in (1) ake and other human use (1) bland (e.g. forest), complex (1) upland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) ed/saturated (3)
6.5	28.5	Recovered (7) Recovering (3) Recent or no recovery (1)  Metric 4. Habitat Alt	ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track dredging other	, l
max 20 pts.	subtotal	4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or development. Score one or development.	e or double check and average.		
SI	28.5	Recent or no recovery (1)	clearcutting  ✓ selective cutting  woody debris removal  toxic pollutants	sedimentation dredging farming nutrient enrichme	

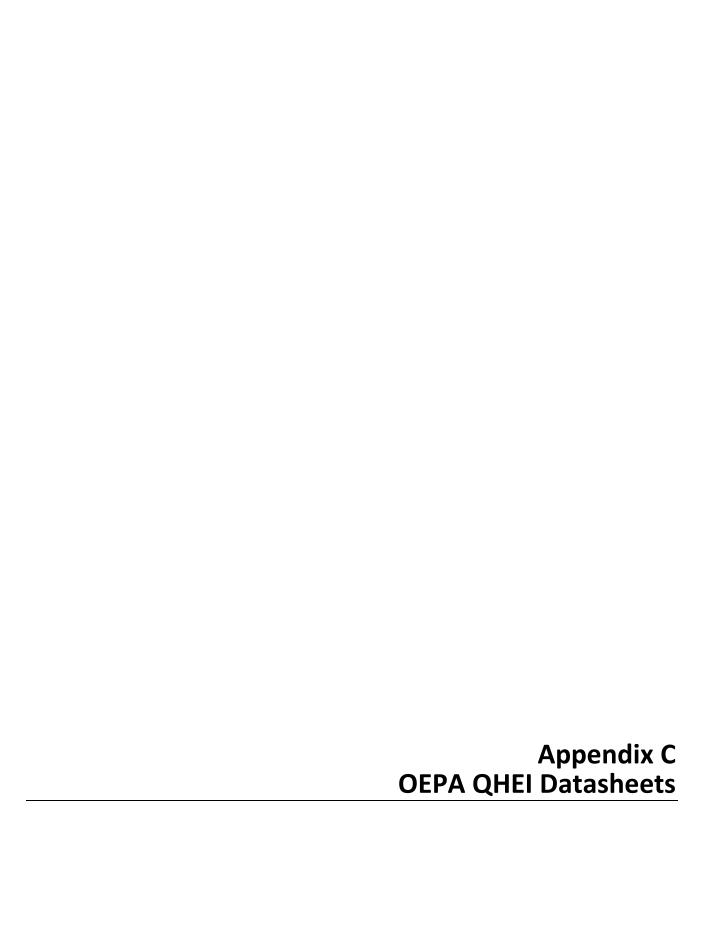
Site: FirstEnergy Holloway-Knox 138kV Rater(s): M. Thomayer, B.Otto **Date:** 6/12/2018 w-mdt-6/12/2018-02 28.5 subtotal first page 0 28.5 Metric 5. Special Wetlands. Check all that apply and score as indicated. max 10 pts subtotal Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-restricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Prairies (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Rating (-10) 30.5 Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. **Vegetation Community Cover Scale** max 20 pts. subtotal Absent or comprises <0.1ha (0.2471 acres) contiguous area Score all present using 0 to 3 scale. Aquatic bed Present and either comprises small part of wetland's Emergent vegetation and is of moderate quality, or comprises a Shrub significant part but is of low quality 2 Present and either comprises significant part of wetland's Forest Mudflats vegetation and is of moderate quality or comprises a small Open water part and is of high quality Other 3 Present and comprises significant part, or more, of wetland's 6b. horizontal (plan view) Interspersion. vegetation and is of high quality Select only one. High (5) Narrative Description of Vegetation Quality Moderately high(4) Low spp diversity and/or predominance of nonnative or Moderate (3) disturbance tolerant native species Moderately low (2) mod Native spp are dominant component of the vegetation, Low (1) although nonnative and/or disturbance tolerant native spp None (0) can also be present, and species diversity moderate to 6c. Coverage of invasive plants. Refer moderately high, but generally w/o presence of rare to Table 1 ORAM long form for list. Add threatened or endangered spp or deduct points for coverage A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually Extensive >75% cover (-5) Moderate 25-75% cover (-3) absent, and high spp diversity and often, but not always, Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0) Absent (1) **Mudflat and Open Water Class Quality** 6d. Microtopography. 0 Absent < 0.1ha (0.247 acres) Score all present using 0 to 3 scale. Low 0.1 to <1ha (0.247 to 2.47 acres) Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2.47 to 9.88 acres) Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Absent Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 3 Present in moderate or greater amounts and of highest quality GRAND TOTAL (max 100 pts)

Site: F	irstEne	rgy Holloway-Knox 138kV	Rater(s): M. Thomayer,	, B.Otto	<b>Date:</b> 6/12/2018
	L				L 00/40/0040 00
0	0	Metric 1. Wetland	Area (size).		w-mdt-06/12/2018-03
max 6 pts.	subtotal	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 <0.1 acres (0.04ha) (0 pts	ore. s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		
8	8	Metric 2. Upland bu	uffers and surround	ding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width.  WIDE. Buffers average 5  MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average NARROW. Old field (>10 year NODERATELY HIGH. Reference NARROW. See NARROW. Old field (>10 year NARROW. AVERAGE NARROW. See NARROW.	Select only one and assign score.  Om (164ft) or more around wetland pe 25m to <50m (82 to <164ft) arounge 10m to <25m (32ft to <82ft) arous average <10m (<32ft) around wetlas	Do not double check. perimeter (7) Id wetland perimeter (4) und wetland perimeter (1) and perimeter (0) average. Idlife area, etc. (7) forest. (5) nservation tillage, new fallo	
14	22	Metric 3. Hydrolog	y.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5)  ✓ Other groundwater (3)  ✓ Precipitation (1)  Seasonal/Intermittent surfine Perennial surface water (1)  3c. Maximum water depth. Select (2)  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in)  ✓ <0.4m (<15.7in) (1)  3e. Modifications to natural hydrological periods (1)	at apply.  ace water (3) ake or stream) (5) only one and assign score.  3b	Part of wetland/up Part of riparian or Duration inundation/satu Semi- to permane Regularly inundat Seasonally inundat  V Seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check. ently inundated/saturated (4) ted/saturated (3)
6	28	None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir stormwater input	point source (non filling/grading road bed/RR track dredging other_	,
max 20 pts.	subtotal	Metric 4. Habitat A  4a. Substrate disturbance. Score of		opment.	
na co pe		None or none apparent (4 Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one of	) nly one and assign score.		
9	28	None or none apparent (9 Recovered (6) Recovering (3) Recent or no recovery (1)	✓ mowing grazing	shrub/sapling rem herbaceous/aqua sedimentation dredging farming nutrient enrichme	ttic bed removal

ORAM v. 5.0 Field Form Quantitative Rating		Wetland PB-24
	( <b>s):</b> M. Tho	omayer, B.Otto Date: 6/12/2018
28 subtotal first page		w-mdt-6/12/2018-03
0 28 Metric 5. Special Wetlan	ıds.	
Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-take Plain Sand Prairies (Oak Oper Relict Wet Prairies (10) Known occurrence state/federal three Significant migratory songbird/water Category 1 Wetland. See Question	inrestricted hydrologings) (10) atened or enda fowl habitat or i	ngered species (10) usage (10)
2 30 Metric 6. Plant commun	ities, inte	erspersion, microtopography.
max 20 pts. subtotal 6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation 0	Community Cover Scale Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed  1 Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
Other  6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
Select only one.  High (5)	Narrative De	escription of Vegetation Quality
Moderately high(4)  Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare
to Table 1 ORAM long form for list. Add or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
✓ Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
1 Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more
Amphibian breeding pools	Microtopoar	raphy Cover Scale
	0	Absent
	1	Present very small amounts or if more common
		of marginal quality
	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
30 GRAND TOTAL (max 100 pts)		and of highest quality

Site: F	irstEne	gy Holloway-Knox 138kV	Rater(s): M. Thomayer,	B.Otto	<b>Date:</b> 6/12/2018
2 max 6 pts.	2 subtotal	Metric 1. Wetland A  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 <0.1 acres (0.04ha) (0 pts)   <   >	ore. s) :20.2ha) (5 pts) 1ha) (4 pts) :a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)		w-mdt-06/12/2018-0
8	10	Metric 2. Upland by	uffers and surround	ing land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width.  WIDE. Buffers average 5  MEDIUM. Buffers averag  NARROW. Buffers averag  VERY NARROW. Buffers  2b. Intensity of surrounding land us  VERY LOW. 2nd growth  WOW. Old field (>10 year  MODERATELY HIGH. Re	Select only one and assign score. If Om (164ft) or more around wetland properties to <50m (82 to <164ft) around ge 10m to <25m (32ft to <82ft) around seaverage <10m (<32ft) around wetlar e. Select one or double check and a or older forest, prairie, savannah, wild s), shrubland, young second growth fesidential, fenced pasture, park, consopen pasture, row cropping, mining, compared to the control of the contro	Do not double check. erimeter (7) I wetland perimeter (4) nd wetland perimeter (1) nd perimeter (0) average. dlife area, etc. (7) forest. (5) servation tillage, new fallo	
14	24	Metric 3. Hydrolog	V.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that High pH groundwater (5)  Vother groundwater (3)  Precipitation (1)  Seasonal/Intermittent surful Perennial surface water (I)  3c. Maximum water depth. Select of Solution (3)  0.4 to 0.7m (15.7 to 27.6in V)  Volume 15.7in (1)	at apply.  Sace water (3) ake or stream) (5) only one and assign score.  Sace water (3) ake or stream) (5) only one and assign score.  Check all disturbances observed ditch tile	Part of wetland/up Part of riparian or Duration inundation/sate Semi- to permane Regularly inundat Seasonally inund Seasonally satura ck and average.	ini (1) lake and other human use (1) pland (e.g. forest), complex (1) r upland corridor (1) uration. Score one or dbl check ently inundated/saturated (4) ted/saturated (3) ated (2) ated in upper 30cm (12in) (1)
6	30	Metric 4. Habitat A	Iteration and Develo	pment.	
max 20 pts.	subtotal 30	4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	nly one and assign score.  r double check and average.  Check all disturbances observed mowing grazing	shrub/sapling ren herbaceous/aqua sedimentation dredging farming	
SI	ubtotal this pa		toxic pollutants	nutrient enrichme	ent

ORAM v. 5.0 Field Form Quantitative Rating		Wetland PB-25	5
Ţ Ţ	<b>s):</b> M. Tho	mayer, B.Otto <b>Date:</b> 6/12/2018	
30 subtotal first page		w-mdt-6/12/2018-04	
0 30 Metric 5. Special Wetlan	ds.		
Check all that apply and score as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-re Lake Plain Sand Prairies (Oak Openi Relict Wet Prairies (10) Known occurrence state/federal threa Significant migratory songbird/water for Category 1 Wetland. See Question 1	nrestricted hydro estricted hydrolo ngs) (10) atened or endar fowl habitat or u Qualitative Ra	ngered species (10) usage (10) uting (-10)	
	•	erspersion, microtopography.	
max 20 pts. subtotal 6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation C	Absent or comprises <0.1ha (0.2471 acres) contiguous area	
Aquatic bed  1 Emergent Shrub	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality	
Forest Mudflats Open water	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality	
Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality	
Select only one.  High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)	Narrative De low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation,	
Low (1) None (0) 6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp	
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp	
Nearly absent <5% cover (0) Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
1 Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more	
Amphibian breeding pools	Microtopogra	aphy Cover Scale	
	0	Absent	
	1	Present very small amounts or if more common	
		of marginal quality	
	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	
	3	Present in moderate or greater amounts	
31 GRAND TOTAL (max 100 pts)		and of highest quality	





## **Qualitative Habitat Evaluation Index and Use Assessment Field Sheet**

QHEI Score:

Stream & Location: Holloway-Knox 138kV Transmission Line (Dining Fork) RM: **Date:** 06 | 06 | 18 S-MDT-06062018-03 Scorers Full Name & Affiliation: M. Thomayer, T.Qualio-CH2M HILL Lat./ Long.: 40 location 🗹 44736 **/8** 1 . 049597 River Code: STORET #: 1] SUBSTRATE Check ONLY Two substrate TYPE BOXES: Check ONE (Or 2 & average) estimate % or note every type present OTHER TYPES POOL RIFFLE **BEST TYPES** ORIGIN QUALITY **POOL RIFFLE** ✓ LIMESTONE [1] ☐ ☐ HARDPAN [4] ☑ HEAVY [-2] ☐☐ BLDR /SLABS [10] ☐ TILLS [1] ☐ MODERATE [-1] Substrate □□ BOULDER [9] ☐ ☐ DETRITUS [3] SILT **☑** WETLANDS [0] ☐☐ COBBLE [8] 20 ☐ MUCK [2] NORMAL [0] ☐☐☐ GRAVEL [7] 40 ☑ SILT [2] 10 ☑ HARDPAN [0] ☐ FREE [1] 5 MODERAL [0] EXTENSIVE [-2] ☐ SANDSTONE [0] ☐ ☑ SAND [6] 20 25 ☐ ☐ ARTIFICIAL [0] RIP/RAP [0] ☐☐ BEDROCK [5] ☐ MODERATE [-1] (Score natural substrates; ignore Maximum NUMBER OF BEST TYPES: 4 or more [2] sludge from point-sources) ☐ LACUSTURINE [0] ☐ 20 ☐ SHALE [-1] ✓ 3 or less [0] Comments ☐ COAL FINES [-2] bricks lining stream bed 2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest 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. **AMOUNT** Check ONE (Or 2 & average) **☐ EXTENSIVE >75% [11] UNDERCUT BANKS [1] MODERATE 25-75% [7]** POOLS > 70cm [2] \_ **OXBOWS, BACKWATERS [1]**  $\checkmark$ **OVERHANGING VEGETATION [1] ROOTWADS** [1] **AQUATIC MACROPHYTES [1]** SPARSE 5-<25% [3] SHALLOWS (IN SLOW WATER) [1] ☐ NEARLY ABSENT <5% [1]
</p> **BOULDERS** [1] LOGS OR WOODY DEBRIS [1] **ROOTMATS [1]** Cover Comments Maximum 20 3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average) SINUOSITY DEVELOPMENT **CHANNELIZATION** STABILITY ☐ HIGH [4] **EXCELLENT** [7] NONE [6] ☐ HIGH [3] ✓ MODERATE [3] ☐ GOOD [5]  $\overline{\mathbf{A}}$ **RECOVERED [4]** П **MODERATE [2]** ☐ LOW [2] ✓ FAIR [3] **RECOVERING [3]** ✓ LOW [1] Channel □ NONE [1] ☐ RECENT OR NO RECOVERY [1] □ POOR [1] Maximum Comments 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 **EROSION** ☐ ☑ WIDE > 50m [4] ☐ ☑ FOREST, SWAMP [3] ☐ ☐ CONSERVATION TILLAGE [1] NONE / LITTLE [3] ☐ ☐ SHRUB OR OLD FIELD [2] ☐ ☐ URBAN OR INDUSTRIAL [0] ☐ MODERATE 10-50m [3] ☐ MODERATE [2] □ □ NARROW 5-10m [2] ☐ RESIDENTIAL, PARK, NEW FIELD [1] ☐ ☐ MINING / CONSTRUCTION [0] ☐ HEAVY / SEVERE [1] ☐ VERY NARROW < 5m [1] ☐ ☐ FENCED PASTURE [1] Indicate predominant land use(s) □ □ NONE [0] ☑ □ OPEN PASTURE. ROWCROP [0] past 100m riparian. Riparian Comments Maximum 5] POOL / GLIDE AND RIFFLE / RUN QUALITY **Recreation Potential MAXIMUM DEPTH CHANNEL WIDTH CURRENT VELOCITY** Check ONE (ONLY!) Check ONE (Or 2 & average) Check ALL that apply **Primary Contact** ☑ POOL WIDTH > RIFFLE WIDTH [2] ☐ TORRENTIAL [-1] ☐ SLOW [1] ☐ > 1m [6] Secondary Contact □ 0.7-<1m [4] ☐ POOL WIDTH = RIFFLE WIDTH [1] ☐ VERY FAST [1] ☐ INTERSTITIAL [-1] (circle one and comment on back) ☐ POOL WIDTH < RIFFLE WIDTH [0] ☐ FAST [1] **☑** 0.4-<0.7m [2] ☐ INTERMITTENT [-2] □ 0.2-<0.4m [1] ☐ MODERATE [1] ☐ EDDIES [1] Pool / Current | ☐ < 0.2m [0] Indicate for reach - pools and riffles. Maximum Comments 12 Indicate for functional riffles; Best areas must be large enough to support a population ■ NO RIFFLE [metric=0] of riffle-obligate species: Check ONE (Or 2 & average). RIFFLE / RUN SUBSTRATE RIFFLE DEPTH **RUN DEPTH** RIFFLE / RUN EMBEDDEDNESS ☑ BEST AREAS > 10cm [2] MAXIMUM > 50cm [2] ☐ STABLE (e.g., Cobble, Boulder) [2] ■ NONE [2] ☑ MAXIMUM < 50cm [1] 
☐ MOD. STABLE (e.g., Large Gravel) [1]
</p> ☐ LOW [1] ☐ BEST AREAS 5-10cm [1] ✓ MODERATE [0] Riffle / ☐ BEST AREAS < 5cm ☑ UNSTABLE (e.g., Fine Gravel, Sand) [0] EXTENSIVE [-1] Maximum Comments 6] **GRADIENT** ( 48.4 ☐ VERY LOW - LOW [2-4] ft/mi) 30 %POOL %GLIDE: 20 Gradient **☑** MODERATE [6-10] **DRAINAGE AREA** Maximum 20 %RIFFLE %RUN: ☐ HIGH - VERY HIGH [10-6] mi<sup>2</sup>) (4.92 10

<b>LED REACH</b> Comment RE: Reach consistency/ Is reach typical of steam?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc. ALL that apply STAGE	1st-sample pass- 2nd  ☐ HIGH ☐ UP ☐ UP ☐ NORMAL☐ OHWM = 12, TOB =15'	LOW	SED SI V SED	Drawing:		Flow	
AJ SAMPLED REACH Check ALL that apply METHOD STAGE		STANCE DRY	CL/ CL/ CL/ CL/ C20-C4 C4 C4 C4 C4 C4 C4 C4 C4 C4 C4 C4 C4 C	Stream Drawing:	<u>,</u>		

## This foregoing document was electronically filed with the Public Utilities Commission of Ohio Docketing Information System on

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in

Case No(s). 22-0285-EL-BLN

Summary: Application Letter of Notification Application for Kilgore (Polo Road)-New Stacy BUC Segment of Knox-Nottingham 138 kV Transmission Line Project (Part 4) electronically filed by Ms. Devan K. Flahive on behalf of American Transmission Systems Incorporated