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TABLES

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Wethand Delineation and Stream Identification Report Sparrow 138 kV Loop Project Harrison County, Ohio Table 1 Wetlands Identified Within the Project Area

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Map Designation ¹	Cowardin Classification ²	Status ³	Area in AOI (acres)	ORAM v 5.0 Score ⁴	Category ⁴	Latitude ⁵	Longitude ⁵	Figure (Sheet)
WOH-BJM-001	PEM	Abutting	0.19	38	2	40.277483	-80.965343	2 (1)
WOH-BJM-002	PEM/PFO	Abutting	0.52	44	2	40.278347	-80.93573	2 (1,2)
WOH-BJM-003	PEM	Abutting	0.26	30	2	40.284943	-80.968867	2 (2,3)
WOH-BJM-004	PEM	Adjacent	0.03	27	1	40.28677	-80.97026	2 (3)
WOH-BJM-005	PEM	Adjacent	0.11	21	1	40.288894	-80.967262	2 (3)
WOH-BJM-006	PEM/PFO	Adjacent	0.19	œ	2	40.292615	-80.980795	2 (5)
WOH-NLE-001	PEM	Adjacent	0.12	49	2	40.289227	-80.972684	2 (4)
WOH-NLE-002	PEM	Adjacent	0.05	49	2	40.290824	-80.979909	2 (5)

Notes:

- GAI map designation.
 DFM Datrition Ememont
- ² PEM Palustrine Emergent, PFO Palustrine Forested ³ hurideficitional unitantic and manualized under ICLACE CWA Section 404
- Jurisdictional wetlands are regulated under USACE CWA Section 404 authority, and isolated wetlands are regulated under Ohio Revised Code 6111.02 to 6111.028.
- Scoring for ORAM v 5.0: Category 1 = 0 29.9; Category 1 or 2 Gray Zone = 30 34.9; Category Modified 2 = 35 44.9; Category 2 = 45 59.9; Category 2 or 3 = 60 64.9; Category 3 = 65 100. ORAM v. 5.0 Quantitative Score Calibration, Last Revised: August 15, 2000. http://www.epa.ohio.gov/portals/35/401/oramS0sc_s.pdf. 4

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⁵ North American Datum, 1983.

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Wetland Defineation and Stream Identification Report Sparrow 138 kV Loop Project Harrison County, Ohlo

	Project Area
Table 2	ams Identified Within the Pro
	Str

Man Designation ¹	Stream Name	Flow Regime ²	State Water Quality Classification ³	Class ⁴	Score ⁶	QHEI Score ⁵	Channel Width (feet) ⁶	Channel Lengur In AOI (feet)	Latitude ⁷	Latitude ⁷ Longitude ⁷	(sheet)
SOH-BJM-001	UNT to Liming Creek	Intermittent	N/A	п	47	N/A	4	206	40.277520	-80.965546	2 (1)
SOH-BJM-002	UNT to Liming Creek	Intermittent	N/A	Ħ	52	N/A	£	256	40.278702	-80.965546	2 (1,2)
SOH-BJM-003	UNT to Liming Creek	Intermittent	N/A	H	37	N/A	4	135	40.284835	-80.968933	2 (2,3)
SOH-NLE-001	UNT to Liming Creek	Intermittent	N/A	н	38	N/A	4	167	40.290296	40.290296 -80.977101	2 (4)

Notes:

- ¹ GAI map designation.
- Flow regime determined through field observations and a review of available mapping.
- Flow Water uses of streams are defined under the OAC 3745-1. Applicable use designations (OAC 3745-1-07), for aquatic life include: Warmwater Habitat (WWH), Exceptional Warmwater Habitat (EWH), Modified Warmwater Habitat (WWH), Scasonal Salmonid Habitat (SSH), Coldwater Habitat (CWH), and Limited Resource Water (LRW). Water Supply (apply designations include: Public Water Supply (PWS), Agricultural Water Supply (AWS), and Limited Resource Water (LRW). Water Supply (apply designations include: Public Water Supply (PWS), Agricultural Water Supply (AWS), and Industrial Water Supply (IWS). Recreation designated uses include: Primary Contact Recreation (PCR), Most primary headwater streams are not named in the rules. Dated January 23, 2008. http://www.epa.ohio.gov/dsw/rules/3745_1.aspx. .
 - Scoring for OEPA Headwater Habitat Evaluation Index (HHEI) Primary Headwater Habitats (PHWH). Class I = 0 29.9 and include "normally dry channels with little or no aquatic life present"; Class II = 30 69.9 and are equivalent to "warm water habitat"; Class III = 70 100 and typically have perennial flow with cool-cold water adapted native fauna.
- Streams with drainage areas >1 sq. mi., which have not received a water use designation under OAC 3745-1 were scored based on OEPA's Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI), June 2006. http://www.epa.state.oh.us/portals/35/documents/qheimanuaijune2006.pdf. Scoring: >75 = Excellent stream habitat; 60 74 = Good; 45 59 = Fair; 30 44 = Poor; <30 = Very Poor. .
 - ⁶ Channel width is the average length, determined by bankfull width, measured in feet.

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⁷ North American Datum, 1983.

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FIGURES

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PHOTOGRAPHS

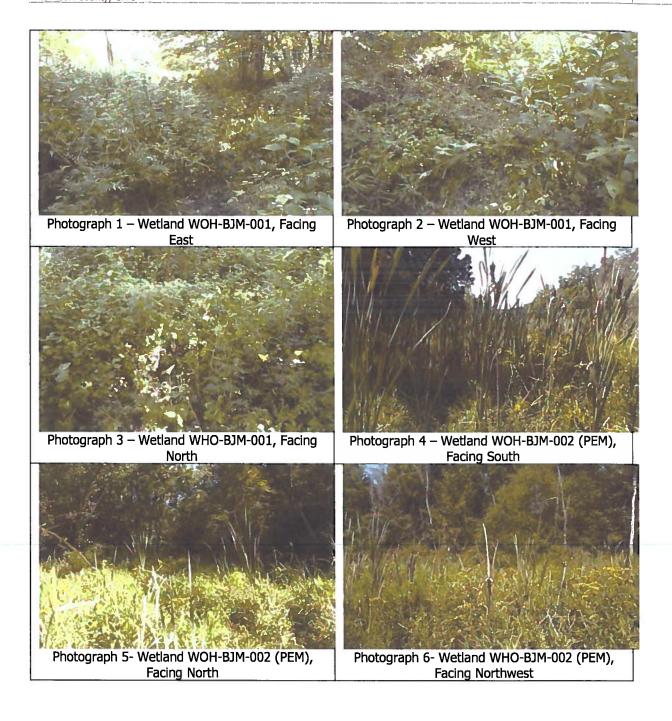
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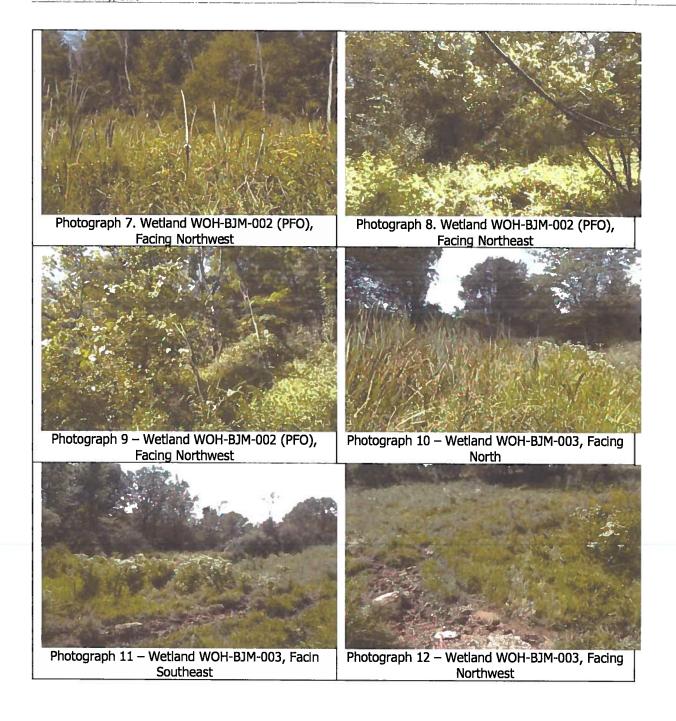
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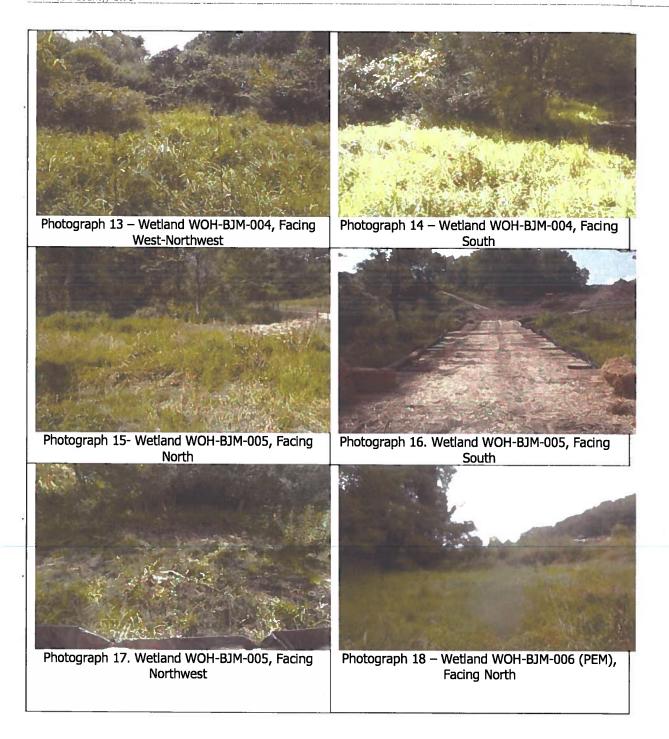
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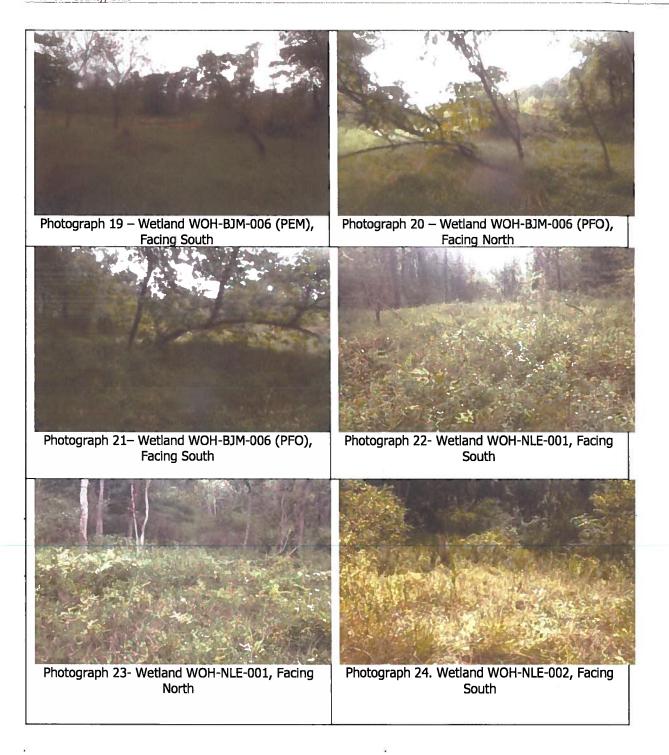


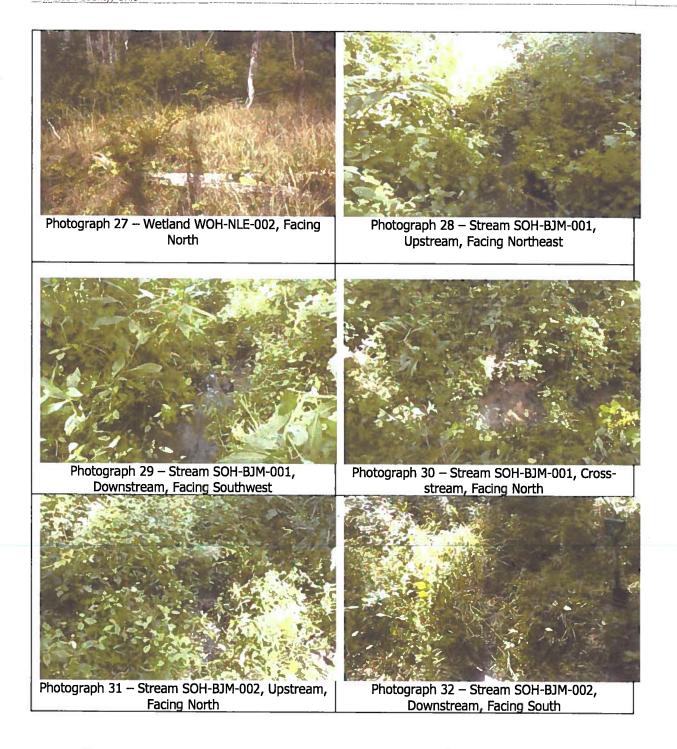


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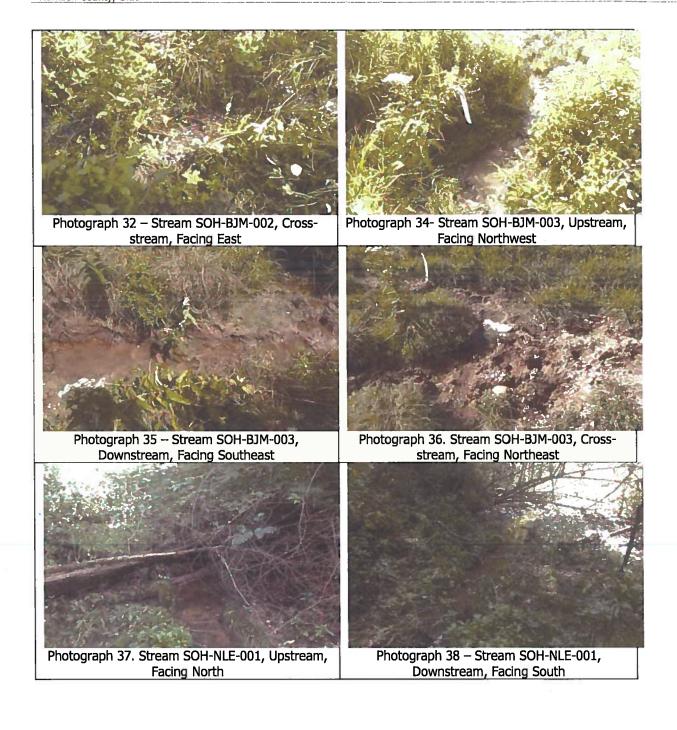


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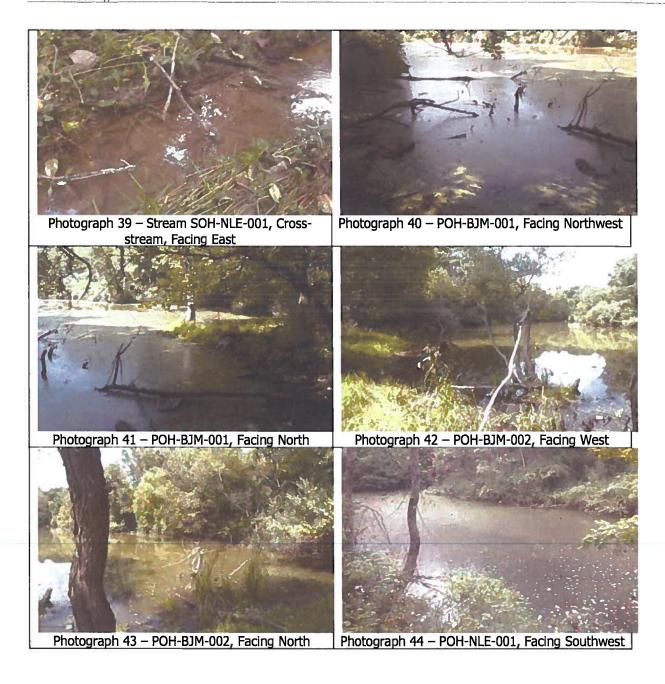
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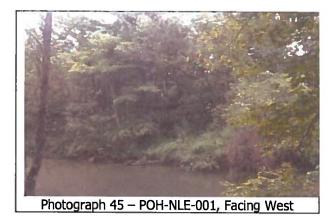
Wetland Delineation and Stream Identification Report Sparrow 138 kV Loop Project Harrison County, Ohio



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Wetland Delineation and Stream Identification Report Sparrow 138 kV Loop Project Harrison County, Ohio



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APPENDIX A Wetland Data Forms

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WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Sparrow 138 kV Loop	City/County: Harrison		Sampling Date: 8/19/14
Applicant/Owner: AEP		State: OH	Sampling Point: WOH-BJM-001
	Section, Township, Range		
	Local relief (concave, convex, no	ne): concave	Slope (%); 2
Subregion (LRR or MLRA): LRRN Lat: 40.	277483 Long: <u>-80.</u>	965343	Datum: NAD83
Soil Map Unit Name: GuD2 - Guernsey silty clay loam, 15 t		NWI classific	ation: PEM
Are climatic / hydrologic conditions on the site typical for th	is time of year? Yes 🖌 No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norma	I Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology		explain any answe	
SUMMARY OF FINDINGS – Attach site map			
Hydrophytic Vegetation Present? Yes <u>/</u> Hydric Soil Present? Yes <u>/</u> Wetland Hydrology Present? Yes <u>/</u> Remarks: Sample point taken along wetland drai originates from outflow of SOH-BJM-00	nage channel containing a fi	ringe PEM w	
HYDROLOGY			12
Wetland Hydrology indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; check all	that apply)	Surface Soil	Cracks (B6)
Surface Water (A1)	e Aquatic Plants (B14)		etated Concave Surface (B8)
🖌 High Water Table (A2) 🛛 🔄 Hyd	drogen Sulfide Odor (C1)	✓ Drainage Pa	
Saturation (A3) Oxi	dized Rhizospheres on Living Roots (C3)	Moss Trim Li	nes (B16)
Water Marks (B1) Pre	sence of Reduced Iron (C4)	Dry-Season	Water Table (C2)
	cent Iron Reduction in Tilled Soils (C6)	🟒 Crayfish Bur	rows (C8)
	n Muck Surface (C7)		sible on Aerial Imagery (C9)
	er (Explain in Remarks)		tressed Plants (D1)
Iron Deposits (B5)			Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu	· · /
Water-Stained Leaves (B9) Aquatic Fauna (B13)		Microtopogra	phic Relief (D4)
Field Observations:	· · · · · · · · · · · · · · · · · · ·		
Surface Water Present? Yes <u>✓</u> No <u>De</u>	anth (inches), <0.25		
Water Table Present? Yes No De	anth (inches): ¹¹		
Saturation Present? Yes / No De		Hydrology Brosor	t? Yes ✔ No
(includes capillary fringe)	e		
Describe Recorded Data (stream gauge, monitoring well,	aerial photos, previous inspections), if ava	ailable:	
N/A			
Remarks:			
Surface water located at the origin of v	vetland NE of CL crossing		
· ·	•		
19	*		
<i>a</i> .			
5	j.		

VEGETATION (Four Strata) – Use scientific names of plants.

WOH-BJM-001

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. None observed			3	That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				(A/B)
7				Prevalence index worksheet:
8				Total % Cover of: Multiply by:
8		= Total Cov		OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)		= 10(8) COV	/ei	FACW species x 2 =
1. None observed				FAC species x 3 =
2				FACU species x 4 =
				UPL species x 5 =
3				
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation indicators:
7	· <u> </u>	<u></u>		1 - Rapid Test for Hydrophytic Vegetation
8. <u></u>				2 - Dominance Test is >50%
9	<u> </u>			
10				$-3 - Prevalence Index is \le 3.0^{1}$
Herb Stratum (Plot size: 5)		= Total Co	ver	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. Amphicarpaea bracteata	22	Y	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Impatiens capensis		· <u>·</u>	FACW	
3. Verbesina alternifolia	- 10	- <u> </u>	FAC	¹ Indicators of hydric soil and wetland hydrology must
	- 14 10	·		be present, unless disturbed or problematic.
4. Agrimonia parviflora	- <u> </u>	<u>N</u>	FACW	Definitions of Four Vegetation Strata:
5. Onoclea sensiblis	8	<u>N</u>	FACW	
6. Solidago gigantea	7	<u>N</u>	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7. Leersia oryzoides	6	N	OBL	height.
8. Pilea pumila	4	N	FACW	Sapling/Shrub – Woody plants, excluding vines, less
9. Symplocarpus foetidus	2	N	OBL	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10				
11				Herb – All herbaceous (non-woody) plants, regardless
12				of size, and woody plants less than 3.28 ft tall.
	-	= Total Co	ver	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. None observed				
2				
3				
4				
				Hydrophytic
5				Vegetation Present? Yes No
6				Present? Yes V. No
		= Total Co	ver	2
Remarks: (Include photo numbers here or on a separate				
Sample plot size was restricted by the	bounda	ry of the	e wetlan	d and wooded vegetation is rooted
outside of the wetland		-		-
Note: at origin of the wetland, the domi	nant ve	detation	is Tvn	ha latifolia. Leersia oryzoides and
Symplocarpus foetidus		30.000		
1				

Sampling Point: _____

Frome Dest	cription. (Descrit		sprin needed to docu	ment the	indicator	or confirm	n the absence	or indicate	ors.)	
Depth	Matrix			ox Feature			-			
<u>(inches)</u> 0-4	<u>Color (moist)</u> 2.5Y 4/1	%	<u>Color (moist)</u> 2.5Y 4/3	_ <u>%</u>	<u>Type¹</u> C	<u>Loc²</u>	<u>Texture</u> SiL		Remarks	
4-14	10YR 4/2							·		
			10YR 4/3	15	- <u>c</u>	<u>M</u>	SiCL			<u> </u>
	7.5YR 5/1	80	7.5YR 4/4	15	_ <u>C</u>	<u>M</u>	CL			
<u></u>			2.5Y 2.5/1	_ 5		M				
		14						ŧ		
		8	···			<u> </u>		ā		
	1						·			·······.
<u>]1</u>										
						. 	2			<u>-</u>
Hydric Soli		epletion, RI	M=Reduced Matrix, M	S=Maske	d Sand Gr	ains.			ng, M=Matrix. robiematic Hyd	drie Selle ³ .
Histosol			Dark Surfac	e (S7)					-	
	pipedon (A2)		Polyvalue B		ace (S8) (N	ILRA 147			A10) (MLRA 14 e Redox (A16)	**)
	istic (A3)		Thin Dark S				,, 、	(MLRA 14		
1	en Sulfide (A4)		Loamy Gley	ed Matrix			F		odplain Soils (F19)
	d Layers (A5)		Depleted Ma					(MLRA 13		
	uck (A10) (LRR N)		Redox Dark	•					w Dark Surface	
	d Below Dark Surfa ark Surface (A12)	ace (ATT)	Depleted Da Redox Depr				_ '	Jther (Expla	ain in Remarks)	
	Mucky Mineral (S1)	(LRR N,	Iron-Mangar			LRR N.				
	A 147, 148)		MLRA 1		,	,				
	Gleyed Matrix (S4)		Umbric Surf					licators of h	ydrophytic vege	etation and
	Redox (S5)		Piedmont FI						rology must be	
	d Matrix (S6)		Red Parent	Material (otio
Restrictive		<u></u>				A 127, 14	<u>7) ι</u>	inless distur	bed or problem	alic.
	Layer (if observe	d):				A 127, 14	7) (inless distur	bed or problem	
Туре:	Layer (if observe	d):				A 127, 14				
Type: Depth (in	Layer (if observe	d):	(idd f dicit)			A 127, 14	7) (Hydric Sol		Yes	No
Туре:	Layer (if observe	d):				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d):				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d):			21) (INLR	<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d): 			21) (INLR	<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d):				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d): 			21) (INLR	<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d): 				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d): 				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d):				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d):			21) (INLR	<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d): 				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d): 				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d):				<u>A 127, 14</u>				
Type: Depth (in	Layer (if observe	d):				<u>A 127, 14</u>				
Type: Depth (in	Layer (If observed inches):	d):				<u>A 127, 14</u>	Hydric Sol		Yes	
Type: Depth (in	Layer (If observed inches):					<u>A 127, 14</u>	Hydric Sol	Present?	Yes	
Type: Depth (in	Layer (If observed inches):					<u>A 127, 14</u>	Hydric Sol	Present?	Yes	
Type: Depth (in	Layer (If observed inches):					<u>A 127, 14</u>	Hydric Sol	Present?	Yes	
Type: Depth (in	Layer (If observed inches):					A 127, 14	Hydric Sol	Present?	Yes	
Type: Depth (in	Layer (If observed inches):					<u>A 127, 14</u>	Hydric Sol	Present?	Yes	
Type: Depth (in	Layer (If observed inches):					<u>A 127, 14</u>	Hydric Sol	Present?	Yes	

,

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Sparrow 138 kV Loop	City/County: Harriso	n	Sampling Date:
Applicant/Owner: AEP		State: OH	Sampling Point: WOH-BJM-002
Investigator(s): BJM ASW	Section, Township,		
Landform (hillslope, terrace, etc.): valley Subregion (LRR or MLRA): LRRN Lat:	Local relief (concave, c	onvex. none); concave	Slope (%): 2
Subregion (LRR or MLRA): LRRN Lat:	40.278347	opg80.965677	Oatum: NAD83
Soil Map Unit Name: Or - Orville silt loam, occasionally fi	looded	NWI cla	ssification: PEM
Are climatic / hydrologic conditions on the site typical for	1	(If no, explain	•
Are Vegetation, Soil, or Hydrology			es" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site ma	•	needed, explain any an locations, transe	3.8
Hydric Soil Present? Yes ✓ Wetland Hydrology Present? Yes ✓ Remarks: ✓	No is the Samp No within a Wet	land? Yes _	✓No
Sample point represents the PEM po outside of the AOI	ortion of WOH-BJM-002	and drains eve	ntually in SOH-BJM-001
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)
	True Aquatic Plants (B14)		Vegetated Concave Surface (B8)
	Hydrogen Sulfide Odor (C1)		e Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living Ro		im Lines (B16)
Water Marks (B1) F	Presence of Reduced Iron (C4)		son Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils	(C6) Crayfish	Burrows (C8)
	Thin Muck Surface (C7)	Saturati	on Visible on Aerial Imagery (C9)
	Other (Explain in Remarks)	Stunted	or Stressed Plants (D1)
Iron Deposits (B5)			phic Position (D2)
Inundation Visible on Aerial Imagery (B7)			Aquitard (D3)
Water-Stained Leaves (B9)			pographic Relief (D4)
Aquatic Fauna (B13) Field Observations:		FAC-Ne	utral Test (D5)
	5		
Surface Water Present? Yes / No			
Water Table Present? Yes _ No Saturation Present? Yes _ No			
(includes capillary fringe)		Vetiand Hydrology Pr	esent? Yes <u>v</u> No
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previous inspectio	ns), if available:	
N/A			
Remarks:			
Multiple hydrology indicators were of	oserved		
			2
2			

VEGETATION (Four Strata) - Use scientific names of plants.

Sampling Point: ____

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?		Number of Dominant Species
1					That Are OBL, FACW, or FAC: 2 (A)
2			. <u> </u>		Total Number of Dominant
3					Total Number of Dominant Species Across All Strata: (B)
4					
5					Percent of Dominant Species
6					That Are OBL, FACW, or FAC: (A/B)
					Prevalence Index worksheet:
7					Total % Cover of:Multiply by:
8					
Sapling/Shrub Stratum (Plot size:			= Total Cov	/er	OBL species x 1 =
1. none observed)				FACW species x 2 =
					FAC species x 3 =
2					FACU species x 4 =
3					UPL species x 5 =
4					Column Totals: (A) (B)
5					
6					Prevalence Index = B/A =
7					Hydrophytic Vegetation indicators:
					1 - Rapid Test for Hydrophytic Vegetation
8					2 - Dominance Test is >50%
9					$_$ 3 - Prevalence Index is $\leq 3.0^1$
10			<u> </u>		4 - Morphological Adaptations ¹ (Provide supporting
Linch Otentum (Districtor 5'			= Total Cov	/er	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5' 1. Leersia oryzoides)	40			Problematic Hydrophytic Vegetation ¹ (Explain)
		42	<u>Y</u>	OBL	
2. <u>Typha augustifolia</u>	·	30	Y	OBL	
3. Onoclea sensiblis		10	<u>N</u>	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Euthamia graminifolia		8	N	FAC	
5. Impatiens capensis		5	N	FACW	Definitions of Four Vegetation Strata:
6. Eupatorium perfoliatum		4	N	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Scirpus atrovirens	······································			OBL	more in diameter at breast height (DBH), regardless of
			<u> </u>		height.
8			·		Sapling/Shrub – Woody plants, excluding vines, less
9					than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10					
11					Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12					
			= Total Cov	/er	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. None observed					
2					
3					
4					Hydrophytic
5				<u> </u>	Vegetation
6				<u> </u>	Present? Yes No
			= Total Cov	<i>i</i> er	
Remarks: (Include photo numbers here of	or on a separate :	sheet.)			
	•				
					·
					3

D-10 IDYR 5/1 90 IDYR 4/6 10 C PL SiL I0-18+ 7.5YR 5/2 80 7.5YR 4/6 20 C PL/M CL ID ID ID C PL CL ID ID ID ID C FL SiL ID	0 10YR 4/6 10 C PL SiL 0 7.5YR 4/6 20 C PL/M CL	epth	Matrix			x Feature					
D-18+ 7.5YR 5/2 80 7.5YR 4/6 20 C PLM CL	0 7.5YR 4/6 20 C PL/M CL 0 0.0 R.1 0.0 Red value Solis (F19) MLRA 136, 122) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			%				Loc ²	Texture	Rei	marks
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix. yrde: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix. Histosol (A1)	on, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils	10 10	0YR 5/1	90	10YR 4/6	10	С	PL	SiL		
dric Soll Indicators: indicators for Problematic Hydri Histos (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Stratified Layers (A5) Depleted Matrix (F2) Piedmont Floodplain Solis (F1 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (T Depleted Balow Dark Surface (A12) Redox Dark Surface (F12) (LRR N, Other Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,		-18+ 7.5	.5YR 5/2	80	7.5YR 4/6	20	С	PL/M	CL		
dric Soil Indicators: Indicators for Problematic Hydri Histos Epideon (A2) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Black Histic (A3)						·					
Indicators: Indicators for Problematic Hydri Histos Dipedon (A2) Black Histic (A3) Intin Dark Surface (S7) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Coamy Gleyed Matrix (F2) Coast Prairie Redox (A16) Depleted Dark Surface (F6) Coast Prairie Redox Dark Surface (F7) Coast Prairie Redox Dark Surface (F7) Coast Prairie Redox Dark Surface (F1) Depleted Dark Surface (F7) Coast Prairie Redox Dark Surface (F1) Depleted Dark Surface (F1) Depleted Dark Surface (F1) MLRA 147, 148) MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S4) Stripped Matrix (S4) Coast Prairie Redox Dark Sourface (F13) (MLRA 136, 122) Hydro Soll Present? Hydric Soll Present? Yes ✓ Interview Hydric Soll Present? Hydric Soll Present Hydric Soll Pre					· · · · ·	·					8
Indicators: Indicators for Problematic Hydri Histos Dipedon (A2) Black Histic (A3) Intin Dark Surface (S7) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Coamy Gleyed Matrix (F2) Coast Prairie Redox (A16) Depleted Dark Surface (F6) Coast Prairie Redox Dark Surface (F7) Coast Prairie Redox Dark Surface (F7) Coast Prairie Redox Dark Surface (F1) Depleted Dark Surface (F7) Coast Prairie Redox Dark Surface (F1) Depleted Dark Surface (F1) Depleted Dark Surface (F1) MLRA 147, 148) MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S4) Stripped Matrix (S4) Coast Prairie Redox Dark Sourface (F13) (MLRA 136, 122) Hydro Soll Present? Hydric Soll Present? Yes ✓ Interview Hydric Soll Present? Hydric Soll Present Hydric Soll Pre						·					
Indicators: Indicators for Problematic Hydri Histos Dipedon (A2) Black Histic (A3) Intin Dark Surface (S7) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Coamy Gleyed Matrix (F2) Coast Prairie Redox (A16) Depleted Dark Surface (F6) Coast Prairie Redox Dark Surface (F7) Coast Prairie Redox Dark Surface (F7) Coast Prairie Redox Dark Surface (F1) Depleted Dark Surface (F7) Coast Prairie Redox Dark Surface (F1) Depleted Dark Surface (F1) Depleted Dark Surface (F1) MLRA 147, 148) MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S4) Stripped Matrix (S4) Coast Prairie Redox Dark Sourface (F13) (MLRA 136, 122) Hydro Soll Present? Hydric Soll Present? Yes ✓ Interview Hydric Soll Present? Hydric Soll Present Hydric Soll Pre					37						
int Soil Indicators: Indicators for Problematic Hydri Histos Epipedon (A2) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Stratified Layers (A5) Depleted Matrix (F2) Piedmont Floodplain Soils (F1 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (T Depleted Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegeta Stripped Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 147, 147) unless disturbed or problematic Hydri strictUve Layer (If observed): Type:					ä				·		5
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Coast Priarie Redox (A16) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Priarie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F1 Strattled Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (A10) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Very Shallow Dark Surface (A11) Depleted Dark Surface (F7) O ther (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N) Redox Depressions (F6) Very Shallow Dark Surface (A12) Redox Depressions (F6) Very Shallow Dark Surface (S5) Piedmont Floodplain Soils (F12) (LRR N, MLRA 143, 162) dindicators of hydrophytic vegeta sandy Redox (S5) Piedmont Floodplain Soils (F13) (MLRA 148) wetland hydrology must be pn Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problemat strictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes In marks:	 Dark Surface (S7) Polyvalue Below Surface (S8) (MLRA 147, 148) Thin Dark Surface (S9) (MLRA 147, 148) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Piedmont Floodplain Soils (F19) MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) 			pletion, RN	A=Reduced Matrix, M	S=Maske	d Sand G	ains.			
Depth (inches): Hydric Soli Present? Yes _ ✓ _ marks:	Hydric Soil Present? Yes <u>Ves</u> No	Histic Epipe Black Histic Hydrogen S Stratified La 2 cm Muck (Depleted Be Thick Dark S Sandy Muck MLRA 14 Sandy Gley Sandy Redo Stripped Ma	edon (A2) (A3) Sulfide (A4) ayers (A5) (A10) (LRR N) elow Dark Surfac Surface (A12) ky Mineral (S1) (47, 148) red Matrix (S4) ox (S5) atrix (S6)	(LRR N,	Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 13 Umbric Surfa Piedmont Flo	elow Surfa Inface (St ad Matrix trix (F3) Surface (rk Surfac essions (I esse Mas 6) ace (F13) bodplain	6) (MLRA (F2) F6) e (F7) F8) ses (F12) (MLRA 1 Soils (F19)	(LRR N, (LRR N, 36, 122)) (MLRA 1	2, 148) Coas (M Piedr (M Very Othe ³ Indicate 48) wetla	t Prairie Redo: LRA 147, 148 nont Floodplai LRA 136, 147 Shallow Dark r (Explain in R ors of hydroph nd hydrology i	x (A16) n Soils (F19)) Surface (TF12) emarks) ytic vegetation ar must be present,
narks:									Hydric Soli Pre	eont? Voe	V No
	·			3						125 	
					·						*
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WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Sparrow 138 kV Loop	City/County: Harrison	Sampling Da	ate: 8/19/14
Applicant/Owner:			Point: WOH-BJM-002
Investigator(s):	Section, Township, Range:		
	Local relief (concave, convex, no		Slope (%); 2
Subregion (LRR or MLRA): LRRN Lat: 40.27		965677 D	
Soil Map Unit Name: GuD2 - Gumsey silty clay loam, 15 to 2		NWI classification: PFO	
Are climatic / hydrologic conditions on the site typical for this		(If no, explain in Remarks.)	· · · · ·
Are Vegetation, Soil, or Hydrology sig		I Circumstances" present? Yes	
Are Vegetation, Soil, or Hydrology na		explain any answers in Remarks	
SUMMARY OF FINDINGS – Attach site map s	36 C		
			2
Hydrophytic Vegetation Present? Yes _ ✓ No Hydric Soil Present? Yes _ ✓ No	is the Sampled Area		
Wetland Hydrology Present? Yes / No		Yes 🔨 No 🔜	
Remarks:			
Sample point represents the PFO portio	n of WOH-BJM-002 and d	ains eventually in SC	H-BJM-001
HYDROLOGY			
Wetland Hydrology indicators:		Occupation in discharge (astro-	
Primary Indicators (minimum of one is required; check all th	at annly)	Secondary Indicators (minimur	n of two required)
	Aquatic Plants (B14)	Surface Soil Cracks (B6)	
	ogen Sulfide Odor (C1)	Sparsely Vegetated Conca	ave Sunace (B8)
	zed Rhizospheres on Living Roots (C3)		
	ence of Reduced Iron (C4)	Dry-Season Water Table ((C2)
	nt Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)	,
Drift Deposits (B3) Thin !	Muck Surface (C7)	Saturation Visible on Aeria	al Imagery (C9)
	(Explain in Remarks)	Stunted or Stressed Plants	
iron Deposits (B5)	.00	Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)	
Water-Stained Leaves (B9) Aquatic Fauna (B13)		Microtopographic Relief (D)4)
Fleid Observations:		✓ FAC-Neutral Test (D5)	
Surface Water Present? Yes No Dept	(inchor);		
Water Table Present? Yes / No Dept			
Saturation Present? Yes / No Dept		Hydroiogy Present? Yes	No
(includes capillary fringe)	18		
Describe Recorded Data (stream gauge, monitoring well, as N/A	arial photos, previous inspections), if av	ailable:	
Remarks:			
Multiple hydrology indicators were obser	rved		

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: ____

	Absolute	Dominant		Dominance Test worksheet:	
Tree Stratum (Plot size: 30')		Species?		Number of Dominant Species	
1. <u>Acer negundo</u>	20	Y	FAC	That Are OBL, FACW, or FAC: 5	(A)
2. Salix nigra	15	Y	OBL	Total Number of Dominant	
3. Ulmus rubra	10	Y	FACW		(B)
4					(-)
5				Percent of Dominant Species	
6.				That Are OBL, FACW, or FAC: 83.33	(A/B)
				Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
8	45			OBL species x 1 =	-
Sapling/Shrub Stratum (Plot size: 15')	40	= Total Cov	er	FACW species x 2 =	
 Rosa multiflora 	15	Y	FACU		
59 C				FAC species x 3 =	
2				FACU species x 4 =	
3				UPL species x 5 =	
4				Column Totals: (A)	(B)
5		. <u> </u>		Development in the DM	
6				Prevalence Index = B/A =	
7				Hydrophytic Vegetation Indicators:	
8				1 - Rapid Test for Hydrophytic Vegetation	
				2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0 ¹	
10				4 - Morphological Adaptations ¹ (Provide supp	ortina
Herb Stratum (Plot size: 5)		= Total Cov	rer	data in Remarks or on a separate sheet)	3
Amphicarpaea bracteata	22	Y	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
	18	· Y	FACW		
	·	<u> </u>		¹ Indicators of hydric soil and wetland hydrology m	ust
3. Agrimonia parvifiora	14	N	FACW	be present, unless disturbed or problematic.	031
4. Typha augustifolia	8	<u>N</u>	OBL	Definitions of Four Vegetation Strata:	
5. Leersia oryzoides	6	<u>N</u>	OBL		
6. <u>Solidago gigantea</u>	5	N	FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cl	
7. Onoclea sensiblis	5	N	FACW	more in diameter at breast height (DBH), regardle height.	ss of
				neight.	
8	ilia:			Sapling/Shrub - Woody plants, excluding vines,	less
9				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
10				Herb - All herbaceous (non-woody) plants, regard	lless
11				of size, and woody plants less than 3.28 ft tall.	
12. <u> </u>	·		<u> </u>		n ·
	78	= Total Cov	/er	Woody vine – All woody vines greater than 3.28 f height.	τin
Woody Vine Stratum (Plot size:)					
1. None observed	·				
2	. <u> </u>				
3	. <u> </u>				
4					
5				Hydrophytic	
6				Vegetation Present? Yes <u>√</u> No	
···		= Total Cov			
Remarks: (Include photo numbers here or on a separate s	sheet.)				
65					
20			22		

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inches)	Matrix			x Feature				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
6	10YR 4/1	90	10YR 4/4	10	<u> </u>	M	SiL	
18+	10YR 5/2	85	7.5YR 4/6	10	С	PL	CL	
	• • • • • • • • • • • • • • • • • • •		10YR 5/4	5	<u>c</u>			
			·····		· —			
	<u> </u>			·	· <u> </u>		· ·	
	- <u> </u>							
				·	•			
				·			· · · · · · · · · · · · · · · · · · ·	
	-				·		· ·	
					7.0			
pe: C=C	Concentration, D=De	nletion, RM	Reduced Matrix, MS	S=Maske	d Sand Gr	ains	² l ocation: Pl =	Pore Lining, M=Matrix.
	indicators:							tors for Problematic Hydric Sc
Histoso			Dark Surface	(S7)				cm Muck (A10) (MLRA 147)
-	Epipedon (A2)		Polyvalue Be	• •	ice (S8) (A	ILRA 147		ast Prairie Redox (A16)
-	listic (A3)		Thin Dark Su					(MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy Gleye					edmont Floodplain Soils (F19)
	ed Layers (A5)		✓ Depleted Ma	trix (F3)				(MLRA 136, 147)
-	luck (A10) (LRR N)		Redox Dark				Ve	ery Shallow Dark Surface (TF12)
•	ed Below Dark Surface	ce (A11)	Depleted Dar		• •		01	her (Explain in Remarks)
	Dark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) ((LRR N,	Iron-Mangan		es (F12) (LRR N,		
	A 147, 148)		MLRA 13				3	
	Gleyed Matrix (S4) Redox (S5)		Umbric Surfa					ators of hydrophytic vegetation
	d Matrix (S6)		Piedmont Flo Red Parent N				•	tland hydrology must be presen less disturbed or problematic.
	Layer (if observed)):						less disturbed of problematic.
		,.						
Type [.]								
Type:							Undele Celli	
Depth (ir	nches):						Hydric Soii I	Present? Yes 🖌 No _
Depth (ir							Hydric Soii I	Present? Yes 🖌 No _
Depth (ir					ľ.		Hydric Soii I	Present? Yes 🖌 No _
Depth (ir					ŗ	e.	Hydric Soii I	Present? Yes <u>/</u> No _
Depth (ir			 		P	E.	Hydric Soii I	Present? Yes No _
Depth (ir			 		E.	P	Hydric Soii I	Present? Yes <u>√</u> No _
Depth (ir							Hydric Soii I	Present? Yes <u>√</u> No _
Depth (ir					•		Hydric Soii I	Present? Yes <u>√</u> No _
Depth (ir						12	Hydric Soii I	Present? Yes <u>No</u> No _
Depth (ir						F.	Hydric Soii I	Present? Yes <u>√</u> No _
Depth (ir					21	C	Hydric Soii I	Present? Yes <u>/</u> No _
Depth (ir					- - -	C	Hydric Soii I	Present? Yes <u>V</u> No _
Depth (ir						12 1	Hydric Soii I	Present? Yes <u>V</u> No
Depth (ir					- -		Hydric Soii I	Present? Yes <u>V</u> No
Depth (ir						- E.2	Hydric Soii I	Present? Yes <u>V</u> No
Depth (ir							Hydric Soii I	Present? Yes <u>√</u> No _
Depth (ir						- K.	Hydric Soii I	Present? Yes <u>√</u> No _
Depth (ir							Hydric Soii I	Present? Yes <u>√</u> No_
Depth (ir							Hydric Soii I	Present? Yes <u>V</u> No
							Hydric Soii I	Present? Yes <u>V</u> No
Depth (ir							Hydric Soii I	Present? Yes <u>V</u> No
Depth (ir							Hydric Soii I	Present? Yes <u>V</u> No
Depth (ir							Hydric Soii I	Present? Yes <u>V</u> No

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Sparrow 138 kV L	рор		City/C	ounty: <u>Harrison</u>		_ Sampling Date: _8/	/19/14
Applicant/Owner: AEP					_ State: OH	Sampling Point:	WOH-BJM-003
Investigator(s): BJM ASW			Section	on. Township, Range: C			
Landform (hillslope, terrace, et	c.): valley	,	Local reli	ief (concave, convex, nor	ne): concave	Slope	e (%): ²
Subregion (LRR or MLRA): LR			Lat. 40.284943	Long: -80.	968867	Datum:	NAD83
Soil Map Unit Name: <u>GuD2 - C</u>	Gumsey s	ity clay loa	am, 15 to 25 percent slope,	eroded	NWI classifi	cation: PEM	
Are climatic / hydrologic conditi	ions on th	e site typi	cal for this time of year? Y	'es 🗹 No 💷	(if no, explain in F	Remarks.)	
Are Vegetation, Soil	, or H	lydrology	significantly distur	bed? Are "Norma	I Circumstances"	present? Yes 🗹	No
Are Vegetation, Soil					explain any answe		
				÷)			itures, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks:		Yes Yes	✓ No ✓ No ✓ No ✓ No	is the Sampled Area within a Wetland?			
Sample point locate upland pasture	dina		etiano that displa	ys neavy cattle t	raπic and is	surrounaea a	ру
HYDROLOGY					· · · · · · · · · · · · · · · · · · ·		
Wetland Hydrology Indicate						ators (minimum of ty	wo required)
Primary Indicators (minimum	of one is	required;				I Cracks (B6)	
Surface Water (A1)			True Aquatic Plants (egetated Concave Si	urface (B8)
High Water Table (A2)			Hydrogen Sulfide Od		Drainage Pa		
Saturation (A3)			Oxidized Rhizospher				
Water Marks (B1)			Presence of Reduced			Water Table (C2)	
Sediment Deposits (B2)			Recent Iron Reductio		Crayfish Bu		
Drift Deposits (B3)			Thin Muck Surface (0	•		isible on Aerial Ima	
Algal Mat or Crust (B4)			Other (Explain in Rei	marks)		Stressed Plants (D1))
Iron Deposits (B5) Inundation Visible on Ae	rial Image				Geomorphic		19. 1
Water-Stained Leaves (E		л у (Б <i>г</i>)				anard (D3) aphic Relief (D4)	
Aquatic Fauna (B13)	39)				✓ FAC-Neutra		
Field Observations:				· · · · · · · · · · · · · · · · ·			
Surface Water Present?	Yes	✓ No	Depth (inches): 2				
Water Table Present?	Yes	✓ No	Depth (inches):				
Saturation Present?			Depth (inches):	Wetiand	Hydrology Prese	nt? Yes 🗸	No
(includes capillary fringe) Describe Recorded Data (str N/A							
Remarks:							
Due to cattle traffic,	etroar	n SOH	-BIM-003 does n	ot exist until the	western nor	tion of the we	tland
	Suear	11 301			western por		lianu
×				34			

VEGETATION (Four Strata) – Use scientific names of plants.

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Sampling Point: _____

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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Deminent
3.				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence index worksheet:
7				Total % Cover of: Multiply by:
8				
		= Total Cov	er	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1				FAC species x 3 =
2		<u> </u>		FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
10				4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5')		= Total Cov	rer	data in Remarks or on a separate sheet)
1 Eupatorium perfoliatum	30	Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Typha latifolia	22	Y	OBL	
2. Leersia oryzoides		N	OBL	¹ Indicators of hydric soil and wetland hydrology must
4. Acorus calamus	10			be present, unless disturbed or problematic.
			OBL	Definitions of Four Vegetation Strata:
5. Impatiens capensis		N	FACW	
6. Juncus tenuis		N	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7. Scirpus atrovirens	2	N	OBL	height.
8. Plantago major	2	N	FAC	
9. Cyperus esculentus	2	N	FACW	Sapiing/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10				
a 8				Herb - All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.	98	– Total Car		Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)		= Total Cov	/e r	height.
1. None observed				
	- <u> </u>			
2		·		
3		·		
4		·		Hydrophytic
5		·		Vegetation
6		·		Present? Yes No
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	sheet.)			
1		•		
		ar		
				• •

Indicates) 54 Color (moist) 54 Yog2 La ² Texture Remarks 10-10 10YR 5/2 60 10YR 5/4 40 C M Sit	Depth	Matrix			ox Feature				•		
10-18+ 10YR 5/2 60 10YR 5/4 40 C M Sit	(inches)	Color (moist)					Loc ²		Rei	marks	
Image: Indicators Image: Indicators Image: Ima	0-10	7.5YR 2.5/1	100					L			
Hydric Soli Indicators: Indicators for Problematic Hydric Solis ² : Histosol (A1)	10-18+	10YR 5/2	60	10YR 5/4	40	С	М	SiL			
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1)											
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histis (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 135, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Iminch Telodplain Soils (F19) (MLRA 146) *Indicators of hydrophytic vegetation and wetland hydrology must be present, Sandy Redox (S5)											
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histis (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 135, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Iminch Telodplain Soils (F19) (MLRA 146) *Indicators of hydrophytic vegetation and wetland hydrology must be present, Sandy Redox (S5)	•							·			
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Redox (S5) Pledmont Floodplain Solls (F19) (MLRA 146) *Indicators of hydrophytic vegetation and wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 147, 147) unless disturbed or problematic. Remarks: Hydric Soil Present? Yes / No	<u> </u>	•					a <u> </u>	·			
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Redox (S5) Pledmont Floodplain Solls (F19) (MLRA 146) *Indicators of hydrophytic vegetation and wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 147, 147) unless disturbed or problematic. Remarks: Hydric Soil Present? Yes / No		•						· <u></u>			
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histis (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 135, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Iminch Telodplain Soils (F19) (MLRA 146) *Indicators of hydrophytic vegetation and wetland hydrology must be present, Sandy Redox (S5)								· <u></u>			
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Redox (S5) Pledmont Floodplain Solls (F19) (MLRA 146) *Indicators of hydrophytic vegetation and wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 147, 147) unless disturbed or problematic. Remarks: Hydric Soil Present? Yes / No	+		_			-	lê.				
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1)	20									·····	
Hydric Soli Indicators: Indicators for Problematic Hydric Solis ² : Histosol (A1)							i	·			<u>-</u> <u>-</u>
Hydric Soll Indicators: Indicators for Problematic Hydric Solls ² : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histis (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 135, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Iminch Telodplain Soils (F19) (MLRA 146) *Indicators of hydrophytic vegetation and wetland hydrology must be present, Sandy Redox (S5)		Concentration D-Do	nlotion Pl					21 a a a ti a a . DI - Di			
Histosol (A1)			pletion, Ri	VI=Reduced Matrix, N	15=Maske	a Sana Gr	ains.				ric Solie ³ :
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loarny Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Pledmont Floodplain Soils (F19) (MLRA 127, 147) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type:				Dark Surfac	e (S7)					•	
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If observed): Type: Hydric Soil Present? Yes No Remarks: 						ace (S8) (N	/LRA 147				()
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)											
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12)				Loamy Gley	ed Matrix		•				-19)
			(644)								(TF12)
			ce (A11)					Othe	r (Explain in Ri	emarks)	
MLRA 147, 148) MLRA 136)			(LRR N.	·	•		LRR N.				
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (If observed): Type: Hydric Soil Present? Yes No			(,								
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (If observed):				Umbric Surf	ace (F13)	(MLRA 13	6, 122)	³ Indicat	ors of hydrophy	ytic vege	tation and
Restrictive Layer (If observed): Type: Depth (inches): Remarks:								48) wetla			
Type: Depth (inches): Remarks: . . Hydric Soll Present? Yes ✓ No . </td <td></td> <td></td> <td></td> <td> Red Parent</td> <td>Material (I</td> <td>F21) (MLR</td> <td>A 127, 14</td> <td>7) unles</td> <td>s disturbed or</td> <td>problem</td> <td>atic.</td>				Red Parent	Material (I	F21) (MLR	A 127, 14	7) unles	s disturbed or	problem	atic.
Depth (inches): Hydric Soll Present? Yes ✓ No Remarks: ):								
Remarks:										1	
								Hvdric Soli Pre	sent? Yes	•	No
	Remarks:										
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WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site:Sparrow 138 kV	Loop			City/C	County: Hamison		_ Sampling Date: _8/19/14
Applicant/Owner: AEP						State: OH	Sampling Point: WOH-BJM-004
Investigator(s): BJM ASW				Section	on. Township. Range:		
Landform (hilislope, terrace, e	tc.): valley			Local rel	ief (concave, convex,	none): concave	Slope (%): 2 Datum: NAD83
Subregion (LRR or MIRA), L	RRN		l at	. 40.284943		80.968867	Ospo (%):
Soil Map Unit Name: MrF - N	lorristown c	hannery s	ilt lo	am, 25 to 70 percent sl	opes, bouldery	NWI classi	fication: PEM
Are climatic / hydrologic condi							
Are Vegetation, Soil _							present? Yes No
Are Vegetation, Soil						d, explain any ansv	
						32	ts, important features, etc.
Hydrophytic Vegetation Pres Hydric Soil Present? Wetland Hydrology Present? Remarks:	sent?	Yes Yes Yes	✓ ✓ ✓	No No _ No	is the Sampled Are within a Wetland?	ea Yes_✓	, No
Sample point locate			/eti		ong the tringe of		I-BJM-002
Wetland Hydrology Indicat	tors:					Secondary Indi	actors (minimum of two sequired)
Primary Indicators (minimum		equired.	cher	k all that apply)		Surface Sc	cators (minimum of two required)
✓ Surface Water (A1)		equirea,		True Aquatic Plants ((B14)		egetated Concave Surface (B8)
High Water Table (A2)				Hydrogen Sulfide Od		Drainage F	
Saturation (A3)				Oxidized Rhizospher			
Water Marks (B1)				Presence of Reduced			n Water Table (C2)
Sediment Deposits (B2))			Recent Iron Reductio			urrows (C8)
Drift Deposits (B3)				Thin Muck Surface (0			Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)			_	Other (Explain in Rer	•		Stressed Plants (D1)
Iron Deposits (B5)						🧹 Geomorph	, ,
Inundation Visible on Ae	erial Imager	у (B7)				Shallow Ac	. ,
Water-Stained Leaves (B9)						raphic Relief (D4)
Aquatic Fauna (B13)						✓ FAC-Neutr	
Field Observations:	·					•	
Surface Water Present?	Yes	No _	1	_ Depth (inches):			
Water Table Present?	Yes	No _	1	_ Depth (inches):			
Saturation Present?	Yes	No _	1	_ Depth (inches):	Wetian	d Hydrology Pres	ent? Yes 🖌 No
(includes capillary fringe) Describe Recorded Data (st	ream gauge	e, monito	ring	well, aerial photos, pre	vious inspections), if	available:	
N/A							
Remarks:							
Hydrology passes of	on two s	second	lar	y indicators			
•							
3							
а Ц							

VEGETATION (Four Strata) – Use scientific names of plants.

WOH-BJM-004

	Absolute	Dominant		Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30'</u>)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species	
1. Ulmus americana	15	Y	FACW	That Are OBL, FACW, or FAC	,
2 Salix nigra	10	Y	OBL		
3				Total Number of Dominant Species Across All Strata: 5 (B)	
4					
				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: (A/	B)
0				Prevalence index worksheet:	
7					
8		<u> </u>		Total % Cover of:Multiply by:	
	25	= Total Cov	er	OBL species x 1 =	
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =	
1. none observed				FAC species x 3 =	
2				FACU species x 4 =	
3				UPL species x 5 =	
				Column Totals: (A) (E	•
4					3)
5				Prevalence Index = B/A =	
6				Hydrophytic Vegetation Indicators:	
7					
8				1 - Rapid Test for Hydrophytic Vegetation	
9				✓ 2 - Dominance Test is >50%	
10				3 - Prevalence Index is ≤3.0 ¹	
				4 - Morphological Adaptations ¹ (Provide supporti	ng
Herb Stratum (Plot size: 5')		= Total Cov	rer	data in Remarks or on a separate sheet)	
1. Cyperus esculentus	20	Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)	
2. Scirpus atrovirens	14	Y	OBL		
3. Carex scoparia	·			¹ Indicators of hydric soil and wetland hydrology must	
	14	Y	FACW	be present, unless disturbed or problematic.	
4. Umus americana	8	N	FACW	Definitions of Four Vegetation Strata:	
5. Agrostis gigantea	8	<u>N</u>	FACW		
6. Persicaria hydropiper	6	N	OBL	Tree - Woody plants, excluding vines, 3 in. (7.6 cm)	ог
7. Scirpus cyperinus	4	N	FACW	more in diameter at breast height (DBH), regardless of height.	of
				Sapiing/Shrub - Woody plants, excluding vines, less	s
9				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
10				Herb – All herbaceous (non-woody) plants, regardles	
11				of size, and woody plants less than 3.28 ft tall.	13
12		<u> </u>			
	74	= Total Cov	/er	Woody vine - All woody vines greater than 3.28 ft in	l -
Woody Vine Stratum (Plot size:)				height.	
1. None observed				······································	
2					
3					
4					
				Hydrophytic	
5		·	<u> </u>	Vegetation	
6		·		Present? Yes No	
		= Total Cov	/er		
Remarks: (Include photo numbers here or on a separate s	sheet.)			· · · · · · · · · · · · · · · · · · ·	
·					

	cription: (Describe	to the dep				or confir	m the absence	of indicators.)	
Depth (inches)	<u>Matrix</u> Color (moist)	%	Color (moist)	<u>ox Feature</u> %	s Type ¹	Loc ²	Touture	Dam	
0-14+	7.5YR 2.5/1	100		70	<u> </u>	LOC	<u> </u>	Remain Re	
			·						
	<u>.</u>						. <u></u>		
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	•						. <u> </u>		
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							2		
÷	12		·			.	·	<u></u>	
	·								<u></u>
	Concentration, D=Dep	letion, RM=	Reduced Matrix, N	S=Masked	d Sand Gr	ains.	² Location: Pl		atrix.
Hydric Soil	indicators:						indic	ators for Problemat	tic Hydric Solls ³ :
Histoso	· ·		Dark Surfac				2	cm Muck (A10) (ML	.RA 147)
	pipedon (A2)		Polyvalue B				, 148) C	oast Prairie Redox (A16)
	listic (A3)		Thin Dark S			147, 148)		(MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gley		(F2)		F	Piedmont Floodplain	Soils (F19)
	ed Layers (A5)		Depleted Ma					(MLRA 136, 147)	
	luck (A10) (LRR N) ed Below Dark Surfac	ο (Δ11)	Redox Dark Depleted Da					/ery Shallow Dark Su	
	ark Surface (A12)	е (АТТ)	Redox Depr				_ `	Other (Explain in Ren	narks)
	Mucky Mineral (S1) (LRR N.	iron-Mangai			LRR N.			
	A 147, 148)	,	MLRA 1			,			
Sandy	Gleyed Matrix (S4)		Umbric Surf	•	(MLRA 13	6, 122)	a ³ Ind	licators of hydrophyti	c vegetation and
	Redox (S5)		Piedmont FI					etland hydrology mu	
	d Matrix (S6)		Red Parent	Material (F	21) (MLR	A 127, 14		nless disturbed or pr	
Restrictive	Layer (if observed)	:						-	
Туре:									
Depth (ir	nches):						Hydric Soil	Present? Yes	✓ No
Remarks:									
soils ap	pear to be coa	l refuse						12	
	•								
	10 A								
	•							•	
	•							•	

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont

Project/Site: Sparrow 138 kV Lo	юр	City/C	ounty: Harrison		Sampling Date:
Applicant/Owner: AEP				State: OH	Sampling Point: WOH-BJM-005
Investigator(s): BJM ASW		Section	on, Township, Range		
Landform (hillslope, terrace, etc	a): <u>valiey</u>	Local reli	ef (concave, convex	(, none): concave	Slope (%): 2
Subregion (LRR or MLRA): LRI		40.288894	Lona:	-80.967262	Datum: NAD83
Soil Map Unit Name: AbC2 - Aa	aron silty clay loam, 6 to	15 percent slopes, ero		NWI classific	
Are climatic / hydrologic condition	•				
Are Vegetation, Soil					vresent? Yes 🖌 No
Are Vegetation, Soil	, or Hydrology	naturally problema		ed, explain any answe	
	÷				, important features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present? Remarks: Sample point located from a pipeline proje	Yes <u>✓</u> Yes <u>✓</u> d in a PEM wetla	No No No No and currently c	Is the Sampled An within a Wetland? rossed by an	? Yes_✔	No s road via timber mats
HYDROLOGY					
Wetland Hydrology Indicato	rs:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum		call that apply)		Surface Soil	
✓ Surface Water (A1)		True Aquatic Plants (B14)		getated Concave Surface (B8)
✓ High Water Table (A2)	_	Hydrogen Sulfide Od	or (C1)	Drainage Pat	
✓ Saturation (A3)		Oxidized Rhizosphere	es on Living Roots (C3) Moss Trim Li	nes (B16)
Water Marks (B1)	_	Presence of Reduced	l Iron (C4)	Dry-Season	Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio	n in Tilled Soils (C6)		
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Ren			tressed Plants (D1)
iron Deposits (B5)	32		,	Geomorphic	
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aqui	
Water-Stained Leaves (B					phic Relief (D4)
Aquatic Fauna (B13)	,			FAC-Neutral	
Field Observations:	·				
Surface Water Present?	Yes 🧹 No	Depth (inches), 2			
Water Table Present?	Yes No				
Saturation Present? (includes capillary fringe)	Yes No			Ind Hydrology Presen	it? Yes <u>V</u> No
Describe Recorded Data (stre	am gauge, monitoring v	vell, aerial photos, pre	vious inspections), i	r avallable:	
	• · · · · · · · · · · · · · · · · · · ·	<u>.</u>			
Remarks:					
	•				·
					2
					a
					15

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: WOH-BJM-005

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30')	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1 none observed				That Are OBL, FACW, or FAC: 2 (A)
2				
3	•			Total Number of Dominant
3	•		·	Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				
7				Prevalence index worksheet:
				Total % Cover of: Multiply by:
8				OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')		= Total Cov	er	FACW species x 2 =
· none observed				
				FAC species x 3 =
2	·		. <u> </u>	FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
9				2 - Dominance Test is >50%
10			·	3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
<u>Herb Stratum</u> (Plot size: <u>5</u>)		= Total Cov	er	data in Remarks or on a separate sheet)
Leersia oryzoides	32	Y	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Scirpus atrovirens		Y	OBL	¹ Indicators of hydric pail and welland hydrology must
3. Echinochloa crus-galli	18	N	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Eupatorium perfoliatum	10	N	FACW	
5. Juncus tenius	8	N	FAC	Definitions of Four Vegetation Strata:
6. Solidago gigantea	4		FACW	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Equisetum fluviatile	2	<u>N</u>		more in diameter at breast height (DBH), regardless of
	· <u>-</u>	N	OBL	height.
8				Conting/Chrub Mandu plants and disputies the
9				Sapilng/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10				
				Herb - All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Weeds size All weeds sizes constant bar 2.00.8 in
	96	= Total Cov	er	Woody vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)				
1. None observed				
2				
3				
4				
				Hydrophytic
5				Vegetation
6				Present? Yes Vo No
		= Total Cov	er	
Remarks: (Include photo numbers here or on a separate s				
sample plot size restricted to wetland b	oundary			
				•3
•				•
1				

		-				or contin	n the absence		rs.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	s Type1	Loc ²	Toxturo		Bomarka	
0-8	2.5Y 3/2	100		70		LUC	<u> </u>	·	Remarks	·····
<u> </u>			40/0 5/4							
8-16+	10YR 3/2	90	10YR 5/4	10	<u> </u>	M	CL			
				8				••••		:
	0.6									54
·				_						
	.			42			<u>.</u>			10
	<u> </u>									,
				2						
	oncentration, D=De		-Reduced Matrix M	S-Maskor	Sand Cr		² l contion: D		- 14-14-1-iv	
Hydric Soli		pletion, Rivi	-Reduced Matrix, M	S=iviasked	Sand Gr	ains.			g, M=Matrix. oblematic Hy	dele Celle ³
-			Death Overfee	- (07)					-	
Histosol	pipedon (A2)		Dark Surface		(00) (8				10) (MLRA 1	47)
	istic (A3)		Polyvalue Bo				,148)		Redox (A16)	
	en Sulfide (A4)		Thin Dark Si Loamy Gley			147, 148)		(MLRA 14	• •	(540)
	d Layers (A5)		Depleted Ma		FZ)				odpiain Soils ((F19)
	uck (A10) (LRR N)		Redox Dark		6)			(MLRA 13	Dark Surface	(TE12)
	d Below Dark Surfac	ce (A11)	Depleted Da	•	•				in in Remarks	
	ark Surface (A12)		Redox Depr							,
	Mucky Mineral (S1) (LRR N.	Iron-Mangar			LRR N.				
	A 147, 148)		MLRA 13		(/ (,				
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	36, 122)	³ In	dicators of hy	drophytic veg	etation and
	Redox (S5)		Piedmont Fl						plogy must be	
Stripped	d Matrix (S6)		Red Parent				•		ped or problem	
Restrictive	Layer (if observed)	:								• · · ·
		-								
Туре:										
							Hydric Soi	l Present?	Yes ✓	No
Depth (in	ches):				_		Hydric Soi	i Present?	Yes	No
Depth (in Remarks:	ches):						Hydric Sol	i Present?	Yes_	No
Depth (in Remarks:			 ;				Hydric Sol	l Present?	Yes _	No
Depth (in Remarks:	ches):		 >	·	-		Hydric Sol	l Present?	Yes 🗸	No
Depth (in Remarks:	ches):		 }				Hydric Sol	l Present?	Yes	No
Depth (in Remarks:	ches):)				Hydric Sol	l Present?	Yes 🖌	No
Depth (in Remarks:	ches):		 ;				Hydric Sol	l Present?	Yes 🖌	No
Depth (in Remarks:	ches):		 }				Hydric Sol	l Present?	Yes _	No
Depth (in Remarks:	ches):		 }				Hydric Sol	l Present?	Yes	No
Depth (in Remarks:	ches):		 }				Hydric Sol	l Present?	Yes	No
Depth (in Remarks:	ches):		 }			1	Hydric Sol	l Present?	Yes	No
Depth (in Remarks:	ches):		 }				Hydric Sol	l Present?	Yes	No
Depth (in Remarks:	ches):		 }			2	Hydric Sol	l Present?	Yes	No
Depth (in Remarks:	ches):		 }			2	Hydric Sol	i Present?	Yes _	No
Depth (in Remarks:	ches):		 }			2	Hydric Sol	l Present?	Yes	No
Depth (in Remarks:	ches):		 }				Hydric Sol	l Present?	Yes _	No
Depth (in Remarks:	ches):					3	Hydric Sol	l Present?	Yes _	No
Depth (in Remarks:	ches):		>			3	Hydric Sol	l Present?	Yes 🖌	No
Depth (in Remarks:	ches):					х	Hydric Sol	l Present?	Yes 🖌	No
Depth (in Remarks:	ches):					х	Hydric Sol	l Present?	Yes 🖌	No
Depth (in Remarks:	ches):					х	Hydric Sol	l Present?	Yes 🖌	No
Depth (in Remarks:	ches):					×	Hydric Sol	l Present?	Yes 🖌	No
Depth (in Remarks:	ches):						Hydric Sol	l Present?	Yes 🗸	No
Depth (in Remarks:	ches):						Hydric Sol	l Present?	Yes 🗸	No
Depth (in Remarks:	ches):			- - - - - - - - - - - - - - - - 			Hydric Sol	i Present?	Yes 🗸	No
Depth (in Remarks:	ches):					2	Hydric Sol	i Present?	Yes 🖌	No

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont

Project/Site Sparrow 138 kV	Loop	City/0	County: Hamson		_ Sampling Date: _	/20/14
Applicant/Owner: AEP		_			Sampling Point	
Investigator(s): BJM ASW		Secti	on, Township, Range: _C			·
Landform (hillslope, terrace, e	etc.): valley	Local rel	lief (concave, convex, no	one); concave	Slope	- (%); ²
Subregion (LRR or MLRA):	RRN	at: 40.292615	Long:80	.980795	Datum:	NAD83
Soil Map Unit Name: GuD2 -	- Gurnsey silty clay loan	, 15 to 25 percent slope,		NWI classifi	ication. PEM	
Are climatic / hydrologic cond	-		· ·	(If no, explain in I		
Are Vegetation, Soil _		-			present? Yes	N-
Are Vegetation, Soil _					· · · · · · · · · · · · · · · · · · ·	NO
SUMMARY OF FINDIN			8	explain any answ ons, transects		atures, etc.
Hydrophytic Vegetation Pres Hydric Soil Present? Wetland Hydrology Present Remarks:	sent? Yes Yes∕ ? Yes∕	No No No	is the Sampled Area within a Wetland?	Yes_V	No	
Sample point locate WOH-BJM-006	ed between edg	ge of N. Main St.	and footslope fo	or a hillslope	e in a PEM po	rtion of
HYDROLOGY				11		
Wetiand Hydrology Indica	tors:			Secondary Indic	ators (minimum of tw	vo required)
Primary Indicators (minimun	n of one is required; ch	eck all that apply)		Surface Soi	l Cracks (B6)	
Surface Water (A1)	-	True Aquatic Plants ((B14)	Sparsely Ve	egetated Concave Si	urface (B8)
High Water Table (A2)		_ Hydrogen Sulfide Od		🗹 Drainage Pa	attems (B10)	
Saturation (A3)			es on Living Roots (C3)	Moss Trim L	_ines (B16)	
Water Marks (B1)		Presence of Reduced		Dry-Season	Water Table (C2)	
Sediment Deposits (B2)) _	_ Recent Iron Reductio		Crayfish Bu		
Drift Deposits (B3)	-	_ Thin Muck Surface (0			/isible on Aerial Imag	
Algal Mat or Crust (B4)	-	Other (Explain in Rer	narks)		Stressed Plants (D1)	
Inundation Visible on A	erial Imageny (B7)		•	Geomorphic		
Water-Stained Leaves (/			Shallow Aqu	aphic Relief (D4)	
Aquatic Fauna (B13)	,			FAC-Neutra	, , ,	
Fièid Observations:						
Surface Water Present?	Yes ✓ No	Depth (inches): 2				
Water Table Present?		Depth (inches): _0				
Saturation Present?		Depth (inches): 0	Wetland I	Hydrology Prese	nt? Yes 🗸	No
(includes capillary fringe) Describe Recorded Data (st						
N/A	ream gauge, monitorin	g well, aeriai photos, pre	vious inspections), if ava	Mable:		
Remarks:						
•			•			
(*)						
8						
17			15			

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: WOH-BJM-006

	Absolute		nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u>)	<u>% Cover</u>	<u>Species</u>	<u>? Status</u>	Number of Dominant Species
				That Are OBL, FACW, or FAC: (A)
2			_	
3				Total Number of Dominant Species Across All Strata: 1 (B)
4				
5		•		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6		·		Prevalence index worksheet:
7				
8				Total % Cover of: Multiply by:
		= Total Co		OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15')				FACW species x 2 =
1. none observed				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				Developed by Diff.
6				Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
0				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
10		·		4 - Morphological Adaptations ¹ (Provide supporting
Hat Obstant (DL L) 5		= Total Co	over	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5')				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Phalaris arundinacea	90	Y	FACW	
2. Typha latifolia	8	N	OBL	
3. Imaptiens capensis	2	N	FACW	¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
··				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				
9				Sapiling/Shrub – Woody plants, excluding vines, less
10				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10				Herb - All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				
	100	= Total Co	ver	Woody vine – All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size:)				
1. None observed				
2			_	
3				
4				
				Hydrophytic
5				Vegetation
6				Present? Yes <u>No</u>
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate	sheet.)			
sample plot size restricted to wetland t		,		
campie plot size restricted to wetland t	Joundary	/		
				•
				÷
X.				÷
Þ				* 2

			needed to docu	nent the m	ulcalor or	comm	i the absen	ce of mulcato	15.)	
Depth	Matrix		Redo	x Features						
<u>(inches)</u> 0-10	Color (moist) 2.5Y 3/2	<u>%</u> 100	Color (moist)	%	Type'	Loc ²	Texture		Remarks	
							SiL			
10-18	7.5YR 2.5/1						SiL			
	· · · · · · · · ·									
								•		
									;;;;;;;	
							·			
							_			
								¥2		
								<u> </u>	··	
	-		<u></u>	·			·			
¹ Type: C=C	oncentration, D=Dep	pletion, RM=F	Reduced Matrix, M	S=Masked S	Sand Grain	s	² Location:	PL=Pore Linin	g, M=Matrix.	
Hydric Soli							ind	licators for Pr	obiematic Hy	dric Solis ³ :
Histosol			Dark Surface					2 cm Muck (A	10) (MLRA 1 4	\$7)
	pipedon (A2)		Polyvalue Be	low Surface	e (S8) (MLF	RA 147,	148)	Coast Prairie	Redox (A16)	
	istic (A3)		Thin Dark SL			, 148)		(MLRA 14	· •	
	en Sulfide (A4) d Layers (A5)		Loamy Gleye		2)				odplain Soils ((F19)
	uck (A10) (LRR N)		Depleted Ma	• •				(MLRA 13		(TT 1 0)
	d Below Dark Surfac	e (Δ11)	Redox Dark						Dark Surface	
	ark Surface (A12)	~ (~ 11)	Redox Depre					Uther (Expla	in in Remarks)	
	Aucky Mineral (S1) (LRR N.	Iron-Mangan			RN				
	A 147, 148)	,	MLRA 13							
	Gleyed Matrix (S4)		Umbric Surfa		LRA 136. ⁻	122)	3	ndicators of hy	drophytic yea	etation and
	Redox (S5)		Piedmont Flo				8)	wetland hydro	plogy must be	present.
	Matrix (S6)		Red Parent M	Aaterial (F21) (MLRA 1	27, 147)		ped or problem	
Restrictive	Layer (if observed)	:								
	Layer (If observed)									
							Hydric S	oii Present?	Yes_✓	No
Type: Depth (in Remarks:	ches):		_				Hydric S	oli Present?	Yes _✓	No
Type: Depth (in Remarks:			<u> </u>				Hydric S	oli Present?	Yes 🗸	No
Type: Depth (in Remarks:	ches):			6			Hydric S	oll Present?	Yes∕	No
Type: Depth (in Remarks:	ches):						Hydric S	oll Present?	Yes∕	No
Type: Depth (in Remarks:	ches):			6			Hydric S	oli Present?	Yes✓	No
Type: Depth (in Remarks:	ches):			999			Hydric S	oli Present?	Yes _✓	No
Type: Depth (in Remarks:	ches):			8			Hydric S	oll Present?	Yes 🖌	No
Type: Depth (in Remarks:	ches):	Il refuse					Hydric S	oll Present?	Yes _✓	No
Type: Depth (in Remarks:	ches):	Il refuse		2			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S		Yes	No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		2			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse					Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse					Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse		8			Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse					Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse					Hydric S			No
Type: Depth (in Remarks:	ches):	Il refuse								No
Type: Depth (in Remarks:	ches):	Il refuse						· · ·		No

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in

Case No(s). 14-1768-EL-BLN

Summary: Letter of Notification for the Sparrow 138kV Transmission Line Loop Project (Part 3 of 6) electronically filed by Mr. Yazen Alami on behalf of AEP Ohio Transmission Company