

**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 038

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing North



#### Wetland 038

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 038

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing South



#### Wetland 038

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 038

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Line	Rebuild Proje	ect City/Cou	nty: Perry C	ounty Sampling Date: 06/03/2020
Applicant/Owner: AEP			<u></u>	State: OH Sampling Point: w-bl-20200603-05
Investigator(s): SM, BL		Section, T	ownship, Rai	nge: S 28 T 17N R 15W
Landform (hillside, terrace, etc.): depression			Local relief (c	oncave, convex, none): concave
Slope (%): 0 Lat: 39.84376			82.18979	Datum: WGS 84
Soil Map Unit Name: Km - Killbuck silt loam, frequently f	flooded		0200.0	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for		f vear?	Yes x	No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology si		•		Circumstances" present? Yes x No
Are Vegetation, Soil, or Hydrologyna				plain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site ma				•
	p 3110WIII	<u> </u>		
Hydrophytic Vegetation Present? Yes X No			Sampled Ar	
		withii	n a Wetland?	Yes_X_ No
Wetland Hydrology Present? Yes X No				
Remarks: Sampling point in (w-bl-20200603-05) to PEM Wetland	039 fully d	elineated We	tland located	on closed depression on hillside over intermittent
Stream 042; drains north to Stream 042.	000, fully u	cilicated. We	ilana locatoa	on dosed depression on miside over intermittent
L VEGETATION – Use scientific names of plan	ıte			
VEGETATION — Use scientific flames of plan	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:
1				Number of Dominant Species That
2				Are OBL, FACW, or FAC: 7 (A)
3				Total Number of Dominant Species
4				Across All Strata: 9 (B)
5		<del></del>		Percent of Dominant Species That
Carolina /Charob Chratora (Diataina 45)		=Total Cover		Are OBL, FACW, or FAC: 77.8% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )	2	Vaa	EAC)4/	Prevalence Index worksheet:
Platanus occidentalis     Rubus occidentalis	3	Yes Yes	FACW UPL	Total % Cover of: Multiply by:
3.		103		OBL species 20 x 1 = 20
4.				FACW species 48 x 2 = 96
5.				FAC species 20 x 3 = 60
	6	=Total Cover		FACU species 18 x 4 = 72
Herb Stratum (Plot size: 5' )				UPL species 3 x 5 = 15
Carex cristatella	20	Yes	FACW	Column Totals: 109 (A) 263 (B)
2. Carex gracillima	15	Yes	FACU	Prevalence Index = B/A = 2.41
3. Agrimonia parviflora	15	Yes	FACW	
4. Carex amphibola	10	Yes	FAC	Hydrophytic Vegetation Indicators:
5. Carex vulpinoidea	10	Yes	FACW	1 - Rapid Test for Hydrophytic Vegetation
6. Scirpus atrovirens	10	Yes	OBL OBL	X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup>
Eupatorium perfoliatum     Vernonia gigantea	5	Yes No	FAC	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9. Toxicodendron radicans	5	No	FAC	data in Remarks or on a separate sheet)
10. Asclepias syriaca	3	No	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
		=Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30')				be present, unless disturbed or problematic.
1.				Hydrophytic
2.				Vegetation
	=	=Total Cover		Present? Yes X No No
Remarks: (Include photo numbers here or on a separa	,			
Hydrophytic vegetation indicator present as dominance	test > 50%	, dominant sp	ecies are FA	CW, FAC and FACU.

SOIL Sampling Point: bl-20200603-

Profile Des	cription: (Describe	to the dep	th needed to doc	ument th	ne indica	tor or o	confirm the absence	of indicators.)	
Depth	Matrix		Redo	x Featur					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-4	10YR 4/2	90	10YR 4/6	10	С	PL	Loamy/Clayey	sandy to silty loam	
4-7	2.5Y 4/2	90	2.5Y 5/4	10	С	PL	Sandy	sandy silt	
7-15	10YR 4/2	80	10YR 3/6	20	С	PL/M	Sandy	sandy silt	
			_						
<sup>1</sup> Type: C=C	oncentration D-Depl	otion DM-	-Poducod Matrix N		kod San		<sup>2</sup> l continu	n: PL=Pore Lining, M=Matrix.	
Hydric Soil	oncentration, D=Depl	elion, Kivi-	-Reduced Matrix, r	vio-ivias	keu Sand	J GIAIIIS		ors for Problematic Hydric Soils <sup>3</sup> :	
Histosol			Sandy Gle	ved Mati	rix (S4)			st Prairie Redox (A16)	
	pipedon (A2)		X Sandy Red	-				-Manganese Masses (F12)	
	istic (A3)		? Stripped M	. ,				Parent Material (F21)	
	en Sulfide (A4)		Dark Surfa		,			Shallow Dark Surface (F22)	
	d Layers (A5)		Loamy Mu		eral (F1)			er (Explain in Remarks)	
	ıck (A10)		Loamy Gle	-				,	
Deplete	d Below Dark Surface	(A11)	X Depleted N	์ Matrix (F:	3)				
Thick Da	ark Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicato	rs of hydrophytic vegetation and	
Sandy N	Sandy Mucky Mineral (S1) Depleted Dark Su				face (F7)		wetl	and hydrology must be present,	
5 cm Mu	5 cm Mucky Peat or Peat (S3) Redox Depressions (F8)						unless disturbed or problematic.		
Restrictive	Layer (if observed):								
Type:									
Depth (i	nches):						Hydric Soil Preser	nt? Yes X No	
Version 8.2,	2018. (https://www.n	rcs.usda.g	ov/Internet/FSE_D	OCUME	NTS/nrcs	s142p2_	_053171.pdf).	rs of Hydric Soils in the United States, inent redox concentrations in pore	
	207								
HYDROLO									
	drology Indicators:								
-	cators (minimum of o	ne is requi			(DO)			ary Indicators (minimum of two required)	
	Water (A1)		Water-Sta					ace Soil Cracks (B6)	
	ater Table (A2)		Aquatic Fa True Aqua					nage Patterns (B10)	
X Saturation	larks (B1)		Hydrogen			١		Season Water Table (C2) rfish Burrows (C8)	
	nt Deposits (B2)		X Oxidized F					ration Visible on Aerial Imagery (C9)	
X Drift Dep			Presence	•		0	· /	nted or Stressed Plants (D1)	
	at or Crust (B4)		Recent Iro		,			morphic Position (D2)	
	posits (B5)		Thin Muck					:-Neutral Test (D5)	
	on Visible on Aerial Ir	nagery (B7						,	
Sparsely	y Vegetated Concave	Surface (E	38) Other (Exp	olain in R	emarks)				
Field Obser	rvations:								
Surface Wat	ter Present? Ye	s	No X	Depth (ii	nches):	0			
Water Table	Present? Ye	s	No X	Depth (ii	nches):				
Saturation P	Present? Ye	s X	No	Depth (ii	nches):	8	Wetland Hydrolo	egy Present? Yes X No No	
(includes ca	pillary fringe)								
Describe Re	ecorded Data (stream	gauge, mo	onitoring well, aeria	l photos	, previous	s inspec	ctions), if available:		
Remarks:	nary and secondary h	vdrology is	udicators propert	Orimon, o	ources a	of hydral	oay are are industed	soonage and concentration of	
precipitation		geomorph	ic position. Wetlan	d drains	via overl			seepage and concentration of m 042 that flows west to Turkey Run that	

Project/Site: Crooksville-North Newark 138 kV Transmission L	ine Rebuild Proje	ect_ City/Cou	nty: Perry C	ounty	Sampling Date:	06/03/2020			
Applicant/Owner: AEP		<u> </u>		State: OH	Sampling Point:	upl-bl-20200603-05			
Investigator(s): SM, BL		Section, T	ownship, Ra	nge: S 28 T 17N R 15V	٧				
Landform (hillside, terrace, etc.): hillslope		!	Local relief (c	concave, convex, none):	convex				
Slope (%): 10 Lat: 39.84371		Long: -	82.189785		Datum: WGS 84				
Soil Map Unit Name: Km - Killbuck silt loam, frequentl	ly flooded			NWI classifi	ication: N/A				
Are climatic / hydrologic conditions on the site typical	for this time o	f year?	Yes x	No (If no, exp	olain in Remarks.)				
Are Vegetation, Soil, or Hydrology	significantly of	disturbed? A	Are "Normal C	Circumstances" present?		)			
Are Vegetation, Soil, or Hydrology	_			plain any answers in Rer					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Yes X N	No	Is the	Sampled Ar	rea	,				
	No X		n a Wetland?		No X				
	No X								
Remarks:	t- sut 5' couth c	f houndary N	-t a watland	==:nt_did not moot budric	ail ar hudrology c	-itorio			
Sampling point out (Upland 037) for Wetland 039, ab	)OUI 5 SOULII O	f boundary. IN	ot a welland	point, did not meet riyund	soli or nyarology o	riteria			
l VEGETATION – Use scientific names of pla	ants.								
	Absolute	Dominant	Indicator						
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor	ksheet:				
1.	- ——			Number of Dominant S	•	ο (Δ)			
2. 3.	-			Are OBL, FACW, or F		3 (A)			
4.	- ——			Total Number of Domi Across All Strata:	•	4 (B)			
5.	. ——			Percent of Dominant S		<del></del> (5)			
	<del>-</del> ,	=Total Cover		Are OBL, FACW, or F	•	5.0% (A/B)			
Sapling/Shrub Stratum (Plot size: 15'	_)								
Rubus occidentalis	40	Yes	UPL	Prevalence Index wo	rksheet:				
2. Hypericum prolificum	10	No	FACU	Total % Cover of:	: Multiply	by:			
3. Elaeagnus umbellata	5	No	UPL	OBL species 0		0			
4. Rhus typhina	3	No	UPL	FACW species 50		00			
5		T 1:10:10:		FAC species 15		45			
Herb Stratum (Plot size: 5' )	58_=	=Total Cover		FACU species 13 UPL species 48		52 240			
Herb Stratum (Plot size: 5' )  1. Dichanthelium clandestinum	25	Yes	FACW	Column Totals: 12		37 (B)			
Agrimonia parviflora	15	Yes	FACW	Prevalence Index =		_			
Solidago gigantea	15	Yes	FAC	i iovalorico mas.	- 5	<del></del>			
4. Impatiens pallida	10	No	FACW	Hydrophytic Vegetat	ion Indicators:				
5. Cirsium arvense	3	No	FACU		Hydrophytic Vegeta	ation			
6.				X 2 - Dominance Te					
7.				3 - Prevalence Inc					
8.					Adaptations <sup>1</sup> (Provi				
9					s or on a separate s	-			
10	_				ophytic Vegetation <sup>1</sup>				
	68 =	=Total Cover		<sup>1</sup> Indicators of hydric so					
Woody Vine Stratum (Plot size: 30'	_)			be present, unless dis	turbed or problemat	tic.			
1.	- ——			Hydrophytic					
2	-	=Total Cover		Vegetation Present? Yes	X No				
		- Tutal Cuvel		Fieseiit: 165					
Remarks: (Include photo numbers here or on a sepa Hydrophytic vegetation indicators present, dominance	,	dominant sne	ocies are FAC	'M/ FΔC and HPI					
Trydrophydd Ydgoladdir maidaloro procein, deilliais	<i>B</i> 1031 - 0070,	dominant op a	Olog alo i i c	W, I AO and OI 2					

Upland 037

SOIL Sampling Point: -bl-20200603

		to the dept				tor or c	confirm the absence of	of indicators.)	
Depth	Matrix			x Featu		. 2	<b>-</b> .		
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	S
0-6	10YR 3/3	100					Loamy/Clayey	sandy lo	am
6-15	10YR 5/6	100					Loamy/Clayey	sandy clay	loam
			_						
1- 0.0				40.14			2, ,		
	Concentration, D=Depl	etion, Rivi=	Reduced Matrix, i	vi5=ivias	sked Sand	Grains		<pre>: PL=Pore Lining, M=N s for Problematic Hyd</pre>	•
Histosol			Sandy Gle	ved Mat	triv (S1)			s for Problematic Hyd t Prairie Redox (A16)	ric soils :
	pipedon (A2)		Sandy Red					Manganese Masses (F1	(2)
	istic (A3)		Stripped M					Parent Material (F21)	2)
	en Sulfide (A4)		Dark Surfa	,	0)			Shallow Dark Surface (	F22)
	d Layers (A5)		Loamy Mu		eral (F1)			· (Explain in Remarks)	22)
	uck (A10)		Loamy Gle	-	. ,			(Explain in Homano)	
	d Below Dark Surface	(A11)	Depleted N						
· ·	ark Surface (A12)	(****)	Redox Dai		-		<sup>3</sup> Indicator	s of hydrophytic vegeta	tion and
	Mucky Mineral (S1)		Depleted [		` '			nd hydrology must be p	
	ucky Peat or Peat (S3	)	Redox De					s disturbed or problema	
_	Layer (if observed):	-						-	
Type:	_ayo: ( oboo. vou).								
Depth (i	nches):						Hydric Soil Present	? Yes	No X
Remarks:			_				•		
	rm is revised from Mid	lwest Regio	onal Supplement \	/ersion :	2 0 to incl	ude the	NRCS Field Indicators	of Hydric Soils in the U	Inited States
	2018. (https://www.n	•							,
No hydric so	oil indicators present								
HYDROLO	OGY								
Wetland Hy	drology Indicators:								
_	cators (minimum of o	ne is require	ed; check all that	apply)			Secondar	y Indicators (minimum	of two required)
Surface	Water (A1)		Water-Sta	ined Lea	aves (B9)		Surfa	ce Soil Cracks (B6)	
High Wa	ater Table (A2)		Aquatic Fa	una (B1	3)		Drain	age Patterns (B10)	
Saturati	on (A3)		True Aqua	tic Plant	ts (B14)		Dry-S	Season Water Table (C2	2)
Water M	larks (B1)		Hydrogen	Sulfide	Odor (C1)	)	Crayf	ish Burrows (C8)	
Sedime	nt Deposits (B2)		Oxidized F	Rhizospł	neres on L	iving R	oots (C3) Satur	ation Visible on Aerial I	magery (C9)
Drift De	posits (B3)		Presence	of Redu	ced Iron (	C4)	Stunt	ed or Stressed Plants (	D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	ction in Til	lled Soil	s (C6) Geon	norphic Position (D2)	
Iron Dep	posits (B5)		Thin Muck	Surface	e (C7)		X FAC-	Neutral Test (D5)	
	on Visible on Aerial Ir	0 , ,							
Sparsely	y Vegetated Concave	Surface (B	8) Other (Exp	olain in F	Remarks)				
Field Obser	rvations:								
Surface Wa	ter Present? Ye				inches):				
Water Table		s			inches): _				
Saturation F		s	No X	Depth (	inches): _		Wetland Hydrolog	gy Present? Yes	No_X_
_,	pillary fringe)						1		
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	ıı photos	, previous	sinspec	ctions), if available:		
Domorko									
Remarks:	lary, no primary hydro	logy indicat	tors present						
JIIC SECOND	iary, no primary nyuro	iogy mulcal	ora prodent.						

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 039

Site: Crooksville-North Newark 138 kV Transmission Line Rebuild Project Date: June 3, 2020

	ie-North Newark 138 kV Transmission Lii	ne Rebuild Project	<b>Date:</b> June 3, 2020
Wetland: w	/-bl-20200603-05		Rater: BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max	6 pts)	
	>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) 10 to <25 acres (4 to <10.1ha) (4 3 to <10 acres (1.2 to <4ha) (3 pt 0.3 to <3 acres (0.12 to <1.2ha) (2 0.1 to <0.3 acres (0.04 to <0.12ha x <0.1 acres (0.04ha) (0 pts)	pts) s) 2pts)	
8 8 Subtotal Points	Metric 2. Upland buffers and surrou  2a. Calculate average buffer width (select one,  WIDE. Buffers average 50m (164  x MEDIUM. Buffers average 25m t  NARROW. Buffers average 10m  VERY NARROW. Buffers average	do not double check) 4ft) or more around wetland to <50m (82 to <164ft) around to <25m (32ft to <82ft) around to <25m (32ft to <82ft) around to <82ft) around to <82ft to <82ft) around to <82ft	nd perimeter (7) und wetland perimeter (4) round wetland perimeter (1)
	2b. Intensity of surrounding land use (select on VERY LOW. 2nd growth or older x LOW. Old field (>10 years), shrul x MODERATELY HIGH. Residentii HIGH. Urban, industrial, open pa	forest, prairie, savannah, bland, young second grow al, fenced pasture, park, co	wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallow field. (3)
26 18	Metric 3. Hydrology. (max 30 pts)		
Subtotal Points	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface wat Perennial surface water (lake or s  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  X <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. (select one or double check & average)  X None or none apparent (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)	ter (3) stream) (5)  3d.	<b>—</b> *** ****
	Trace in the receivery (1)		stormwater input  other- list
35 9 Subtotal Points	Metric 4. Habitat Alteration and Dev  4a. Substrate disturbance. Score one or doub.  X None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one. Excellent (7) Very good (6)	le check and average.	Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  X Recovering (3)  Recent or no recovery (1)
	Good (5)  Moderately good (4)  Fair (3)  x Poor to fair (2)	□ mowing     □ grazing     □ clearcutting     □ selective cutting     □ woody debris removal     □ toxic pollutants	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

DRAM v. 5.0 Field Form Quantitative Rating Wetland 039

Cito: O == -1:!!-		Doto	I 0. 0000
	-North Newark 138 kV Transmission Line Rebui		June 3, 2020
Wetland: w-b	ol-20200603-05	Rater:	BL, SM
35 subtotal first p	age		
35 0 Subtotal Points	Metric 5. Special Wetlands. (max 10 pts.)  Check all that apply and score as indicated  Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts)		
	Mature forested wetland (5 pts)  Lake Erie coastal/tributary wetland-unre Lake Erie coastal/tributary wetland-rest Lake Plain Sand Prairies (Oak Opening Relict Wet Prairies (10 pts) Known occurrence state/federal threate Significant migatory songbird/waterfowl Category 1 Wetland. See Question 1 of	ricted hydrolog gs) (10 pts) ened or endang I habitat or usa	gered species (10) ge (10 pts)
39 4 Subtotal Points	Metric 6. Plant Communities, interspersion  6a. Wetland Vegetation Communities  Score all present using 0 to 3 scale		ography. (max 20 pts.)
	Aquatic bed		
	1 Emergent 0 Shrub Forest Mudflats	1	Absent or comprises <0.1 ha (0.2471 acres) contiguous area  Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
	Open water Other (list)	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
	6b. Horizontal (plan view) interspersion Select only one	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)  Moderately high (4)	Narrative	Description of Vegetation Quality
	Moderate (3)  Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Low (1)  X None (0)  6c. Coverage of invasive plants.	moderate	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 threatened or endangered spp
	Refer to Table 1 ORAM long form for list.  Add or deduct points for coverage  Extensive >75 % cover (-5)  Moderate 25-75% cover (-3)	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
	Sparse 5-25% cover (-1) Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	x Absent (1)	0	Absent <0.1 ha (0.2471 acres)
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more
	Score all present using 0 to 3 scale	Mianata	a manhy Cayan Caala
	2 Vegetated hummocks/tussocks		ography Cover Scale
	O Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh Amphibian breeding pools	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 and of highest quality



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#### Wetland 039

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June 3, 2020

**Description:** 

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Category 2

Facing North



#### Wetland 039

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

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Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 039

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 039

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

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AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

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#### Wetland 039

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Lin	ne Rebuild Proj	ect City/Cou	unty: Perry Co	ounty	Sampling Date	: 06/03	3/2020
Applicant/Owner: AEP				State: OH	Sampling Point	t: w-bl-202	200603-04
Investigator(s): SM, BL		Section,	Township, Ran	nge: S 28 T 17N R 15\	W	· .	
Landform (hillside, terrace, etc.): Terrace			Local relief (co	oncave, convex, none):	concave		
Slope (%): 3 Lat: 39.84399		Long:	-82.190109		Datum: WGS 84		
Soil Map Unit Name: Km - Killbuck silt loam, frequently	y flooded			NWI classi	fication: R5UBH		
Are climatic / hydrologic conditions on the site typical f	or this time c	of year?	Yes x	No (If no, exp	olain in Remarks.	)	
Are Vegetation , Soil , or Hydrology		-		circumstances" present?		No	
Are Vegetation, SoilX_, or Hydrology				plain any answers in Re			•
SUMMARY OF FINDINGS – Attach site m				· · ·	·	atures,	etc.
Hydrophytic Vegetation Present? Yes X N	lo	ls the	e Sampled Are	·ea			
	lo		in a Wetland?		No		ļ
	lo				<u> </u>		ļ
Remarks:							
Sampling point in (w-bl-20200603-04) for PSS Wetlar due to active channel and floodplain with sedimentation					2. Naturally probl	lematic so	oils
				Jilloutou.			
<b>VEGETATION</b> – Use scientific names of pla	Absolute	Dominant	Indicator				
<u>Tree Stratum</u> (Plot size: 30' )	% Cover	Species?	Status	Dominance Test wo	rksheet:		ŀ
1				Number of Dominant			ļ
2.				Are OBL, FACW, or F	•	8	(A)
3.				Total Number of Dom	inant Species		
4.				Across All Strata:	_	8	(B)
5				Percent of Dominant	•		
	. ——	=Total Cover		Are OBL, FACW, or F	AC:	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	)	.,					
1. Salix nigra	30	Yes	OBL	Prevalence Index wo		le lee 1	
2. Salix discolor	10	Yes Yes	FACW FACW	Total % Cover of	f: Multip 5 x 1 =	ply by:	-
Alnus glutinosa     Platanus occidentalis	5	No Yes	FACW	· —	$\frac{5}{5}  x = \underline{\qquad}$	35 170	<u> </u>
5. Rubus occidentalis	3	No	UPL		5 x2 =	45	-
3. Nubus occidentaris		=Total Cover			5 x4=	20	-
Herb Stratum (Plot size: 5' )		10101 001			x5=	25	•
1. Phalaris arundinacea	20	Yes	FACW	Column Totals: 14		295	(B)
2. Solidago gigantea	20	Yes	FACW	Prevalence Index		.03	•` ′
3. Geum canadense	10	Yes	FAC				•
4. Dichanthelium clandestinum	10	Yes	FACW	Hydrophytic Vegeta	tion Indicators:		
5. Packera aurea	10	Yes	FACW	1 - Rapid Test for		jetation	
6. Eupatorium perfoliatum	5	No	OBL	X 2 - Dominance Te			
7. Symphyotrichum prenanthoides	5	No	FAC	X 3 - Prevalence In	dex is ≤3.0 <sup>1</sup>		
8. Medicago sativa	5	No	FACU	4 - Morphological			porting
9. Eupatorium maculatum	3	No	OBL		ks or on a separat		
10				Problematic Hydr	ophytic Vegetatio	n¹ (Explai	ıin)
	88	=Total Cover		<sup>1</sup> Indicators of hydric s			must
Woody Vine Stratum (Plot size: 30'	)		-	be present, unless dis	sturbed or problen	natic.	
1				Hydrophytic			
2		=Total Cover		Vegetation	Y No		
			ī	Present? Yes	X No		
		- Total Cover					
Remarks: (Include photo numbers here or on a sepa Hydrophytic vegetation indicator present as dominand	rate sheet.)			•			

Sampling Point: w-bl-20200603-04

## **VEGETATION Continued** – Use scientific names of plants.

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u>	% Cover	Species?	Status	Definitions of Vegetation Strata:
6.				Tree Meady plants 2 in (7.0 am) as many in diameter
7.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
8.				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.
10				
11				Herb – All herbaceous (non-woody) plants, including
12				herbaceous vines, regardless of size, and woody
13				plants less than 3.28 ft tall.
		=Total Cover		Woody Vine - All woody vines greater than 3.28 ft in
Sapling/Shrub Stratum				height.
6. Elaeagnus umbellata	2	No	UPL	
8				
9.				
10				
11				
12				
13.				
		=Total Cover		
Horh Stratum		- rotal Gover		
Herb Stratum				
11				
12				
13				
14				
15.		' <u> </u>		
16.				
17				
17.				
18				
19				
20				
21				
22				
	88	=Total Cover		
Woody Vine Stratum				
3.				
1				
4				
5				
6.				
7				
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rata aboat \			
include prioto numbers here of on a sepa	iiale sileel.)			

SOIL Sampling Point: bl-20200603-

	ription: (Describe	to the dept				tor or o	confirm the absence of	of indicators.)
Depth	Matrix		Redo	x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 3/3	100					Loamy/Clayey	sandy loam
6-14	10YR 4/2	90	10YR 3/3	10	С	PL	Loamy/Clayey	sandy loam
			_					
<sup>1</sup> Type: C=C	oncentration, D=Dep	etion RM-	Peduced Matrix M	M-2N	ed Sand	Grains	<sup>2</sup> l ocation	: PL=Pore Lining, M=Matrix.
Hydric Soil		etion, Min-	rteduced Matrix, I	vio-ivias	Keu Sanc	Orania		s for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	ved Mat	rix (S4)			t Prairie Redox (A16)
	ipedon (A2)		Sandy Red	-	` ,			Manganese Masses (F12)
Black His			Stripped M	latrix (S6	5)			Parent Material (F21)
Hydroge	n Sulfide (A4)		Dark Surfa	ce (S7)			Very	Shallow Dark Surface (F22)
Stratified	Layers (A5)		Loamy Mu	cky Mine	eral (F1)		X Other	(Explain in Remarks)
2 cm Mu	ck (A10)		Loamy Gle	eyed Mat	rix (F2)			
	Below Dark Surface	(A11)	Depleted N	-	-			
	rk Surface (A12)		Redox Dai		` '			s of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Depleted Date					` ,			nd hydrology must be present,
	cky Peat or Peat (S3	)	Redox De	pression	s (F8)		unies	s disturbed or problematic.
	Layer (if observed):							
Type:			_					
Depth (ir	icnes):						Hydric Soil Present	? Yes X No
Remarks:		harant Danis		/! <b>(</b>	0.4	41	NDOO Field by die sterne	of the date Oaths to the Chates
	m is revised from Mic 2018. (https://www.n							s of Hydric Soils in the United States,
								42. Redox concentrations in pore linings
are faint. Sho	ovel refusal at 14" du	e to gravel	stream substrates	i.				
HYDROLO	GY							
Wetland Hy	drology Indicators:							
_	cators (minimum of o	ne is requir	ed; check all that	apply)			Secondar	ry Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Lea	ves (B9)		Surfa	ce Soil Cracks (B6)
High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		Drain	age Patterns (B10)
Saturation			True Aqua	tic Plant	s (B14)		Dry-S	Season Water Table (C2)
Water M	arks (B1)		Hydrogen				<u> </u>	ish Burrows (C8)
	t Deposits (B2)		Oxidized F	•		•	` ′	ration Visible on Aerial Imagery (C9)
X Drift Dep			Presence					ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro			led Soil	` '	norphic Position (D2)
	osits (B5) on Visible on Aerial Ir	magany (R7	Thin Muck Gauge or '				<u>X</u> FAC-	Neutral Test (D5)
	Vegetated Concave				` '			
Field Obser			<u> </u>	, , , , , , , , , , , , , , , , , , ,	omano,			
Surface Wat		s	No X	Depth (ii	nches):	0		
Water Table		s			nches):			
Saturation P		s			nches):		Wetland Hydrolog	gy Present? Yes X No
(includes car	oillary fringe)				· <del>-</del>			
Describe Re	corded Data (stream	gauge, mo	nitoring well, aeria	l photos	previous	inspec	ctions), if available:	
Domorko								
Remarks: Multiple prim	ary and secondary h	ydroloav inc	dicators present. F	Primary s	ources o	f hydrol	logy are overbank flow	from intermittent stream and
								2 that flows west to Turkey Run that
flows north to	Jonathan Creek tha	at flows wes	t to Muskingum R	iver, a T	NW.			

Project/Site: Crooksville-North Newark 138 kV Transmission	Line Rebuild Proje	ect_ City/Cou	unty: Perry C	County	Sampling Date:	06/03/2020
Applicant/Owner: AEP				State: OH	Sampling Point	upl-bl-20200603-04
Investigator(s): SM, BL		Section,	Township, Ra	inge: S 28 T 17N R 1	15W	
Landform (hillside, terrace, etc.): Terrace			Local relief (d	concave, convex, none	e): convex	
Slope (%): 5 Lat: 39.84405		Long:	-82.19006		Datum: WGS 84	
Soil Map Unit Name: Km - Killbuck silt loam, frequen	itly flooded			NWI clas	sification: N/A	
Are climatic / hydrologic conditions on the site typical	for this time o	f year?	Yes x	No (If no, e	explain in Remarks.)	<u> </u>
Are Vegetation, SoilX, or Hydrology	significantly o	disturbed?	Are "Normal (	Circumstances" presen		No
Are Vegetation, Soil, or Hydrology				cplain any answers in F		
SUMMARY OF FINDINGS – Attach site r	_					atures, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	e Sampled A	rea		
	No x		in a Wetland		No X	
	No X				<u> </u>	
Remarks:						
Sampling point out (Upland 038) for Wetland 040, a point, no wetland criteria met	bout 20' north	of wetland bo	oundary on up	per terrace/spoils pile	= disturbed soils. No	ot a wetland
· ·						
<b>VEGETATION</b> – Use scientific names of p	Absolute	Dominant	Indicator	ī		
<u>Tree Stratum</u> (Plot size:30')	% Cover	Species?	Status	Dominance Test w	vorksheet:	
1	_			Number of Domina	nt Species That	
2.				Are OBL, FACW, or	r FAC:	1 (A)
3.				Total Number of Do	ominant Species	, (D)
4.				Across All Strata:		4 (B)
5		-Total Cover	. ——	Percent of Dominar	•	05 00/ (A/D)
Sapling/Shrub Stratum (Plot size: 15'	`	=Total Cover		Are OBL, FACW, or	r FAC:	25.0% (A/B)
1. Rosa multiflora	_' 	Yes	FACU	Prevalence Index	workshoot	
Prunus serotina	10	Yes	FACU	Total % Cover		ılv bv:
3. Elaeagnus umbellata	5	No	UPL	OBL species	0 x 1 =	0
4. Fraxinus pennsylvanica	3	No	FACW	FACW species	28 x 2 =	56
5.				FAC species	15 x 3 =	45
	38	=Total Cover		FACU species	70 x 4 =	280
Herb Stratum (Plot size: 5' )				UPL species	15 x 5 =	75
Solidago altissima	40	Yes	FACU		128 (A)	456 (B)
2. Phalaris arundinacea	20	Yes	FACW	Prevalence Inde	x = B/A = 3.5	56
3. Galium aparine	15	No	FAC	ii i budi Mana		
4. Daucus carota		No No	UPL	Hydrophytic Vege		4 - 40 - m
5. <u>Geum aleppicum</u> 6.	5 5	No No	FACW		for Hydrophytic Veg	etation
7	_ <u> </u>	No No		2 - Dominance 3 - Prevalence		
	5	No			cal Adaptations <sup>1</sup> (Pro	wide supporting
9.	3	No			arks or on a separat	
10.					· drophytic Vegetatio	
	108	=Total Cover			soil and wetland hy	
Woody Vine Stratum (Plot size: 30'	_)				disturbed or problem	
1				Hydrophytic		
2				Vegetation		
	_ <del></del>	=Total Cover		Present? Ye	esNo_>	<u> </u>
Remarks: (Include photo numbers here or on a sep	,					
No hydrophytic vegetation indicators present, domir	nant species ar	e FACW and	FACU			

Upland 038

SOIL Sampling Point: -bl-20200603

		to the dept				tor or c	confirm the absence of	of indicators.)	
Depth	Matrix			x Featur		. 2			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	<u> </u>
0-3	10YR 3/1	100					Loamy/Clayey	sandy loa	m
3-14	10YR 3/4	80	10YR 3/1	20	<u>C</u>	M	Loamy/Clayey	sandy loam; possibl	e coal fines
								-	
1 <sub>Type: C=C</sub>	oncentration, D=Dep	letion RM-	Reduced Matrix N	 M-2N	ked Sand	l Grains	<sup>2</sup> l ocation	: PL=Pore Lining, M=Ma	atriv
Hydric Soil		iodon, raw	rtoddood Matrix, N	io ivias	itou ouric	Oranio		s for Problematic Hydr	•
Histosol			Sandy Gle	yed Matı	rix (S4)			t Prairie Redox (A16)	
	ipedon (A2)		Sandy Red		` ,		Iron-N	Manganese Masses (F12	2)
Black His	stic (A3)		Stripped M	atrix (S6	6)		Red F	Parent Material (F21)	
Hydroge	n Sulfide (A4)		Dark Surfa	ce (S7)			Very	Shallow Dark Surface (F	22)
Stratified	Layers (A5)		Loamy Mu	-			Other	r (Explain in Remarks)	
2 cm Mu	, ,		Loamy Gle	•	, ,				
	Below Dark Surface	(A11)	Depleted N				2		
	Thick Dark Surface (A12) Redox Dark Surface (F6)						s of hydrophytic vegetati		
	Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)						nd hydrology must be pr		
	cky Peat or Peat (S3	•	Redox Dep	ression	s (F8)		unies	s disturbed or problemat	IC.
	_ayer (if observed):								
Type:	\·		<u>—</u>				Undein Cail Brosant	Y	Na
Depth (ir							Hydric Soil Present	:? Yes	Nox
	Remarks: This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils in the United States,								
	m is revised from Mic 2018. (https://www.n							s of Hydric Solls in the Of	nited States,
	I indicators present,								
HYDROLO	GY								
Wetland Hy	drology Indicators:								
_	ators (minimum of o	ne is requir	ed; check all that a	apply)			Secondar	y Indicators (minimum o	f two required)
Surface \	Water (A1)		Water-Stai	ned Lea	ves (B9)		Surfa	ce Soil Cracks (B6)	
High Wa	ter Table (A2)		Aquatic Fa	-	-		Drain	age Patterns (B10)	
Saturation			True Aqua					Season Water Table (C2)	)
Water M			Hydrogen		, ,			ish Burrows (C8)	(55)
	t Deposits (B2)		Oxidized R	•		-		ration Visible on Aerial Im	
	osits (B3)		Presence of Recent Iron					ed or Stressed Plants (D	V1)
	t or Crust (B4) osits (B5)		Thin Muck			ieu Soii	` ' —	norphic Position (D2) Neutral Test (D5)	
	on Visible on Aerial Ir	magery (B7			-		170-	Neutral Test (D3)	
	Vegetated Concave	0 , (	, <u>—</u>						
Field Obser			/ <u> </u>		,				
Surface Water		s	No X	Depth (ii	nches):	0			
Water Table					nches):				
Saturation P				Depth (ii			Wetland Hydrolog	gy Present? Yes	No X
(includes cap	oillary fringe)								
Describe Re	corded Data (stream	gauge, mo	nitoring well, aeria	l photos	previous	inspec	ctions), if available:		
D									
Remarks:	indicators procest								
ino riyarology	indicators present								

ORAM v. 5.0 Field Form Quantitative Rating Wetland 040

Site: Crooks	ville-North Newark 138 kV Transmission L	ine Rebuild Project	Date:	June 3, 2020
Wetland:	w-bl-20200603-04	•	Rater:	BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (3)  3 to <10 acres (1.2 to <4ha) (3)  0.3 to <3 acres (0.12 to <1.2ha)	na) (5 pts) (4 pts) pts)		
8 8 Subtotal Points	0.1 to <0.3 acres (0.04 to <0.12 x <0.1 acres (0.04ha) (0 pts)  Metric 2. Upland buffers and surro 2a. Calculate average buffer width (select one WIDE. Buffers average 50m (1 x MEDIUM. Buffers average 25m	ounding land use. (m. e. do not double check) 64ft) or more around wetlar in to <50m (82 to <164ft) aro	nd perimeter (7) ound wetland pe	
	NARROW. Buffers average 10 VERY NARROW. Buffers average 10 VERY NARROW. Buffers average 10  2b. Intensity of surrounding land use (select of the select of t	age <10m (<32ft) around was one or double check & avera er forest, prairie, savannah, rubland, young second grow ntial, fenced pasture, park, c	etland perimeter  age) wildlife area, et  wth forest. (5) conservation tilla	c. (7)
25 17 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  x Seasonal/Intermittent surface w  Perennial surface water (lake or	vater (3) r stream) (5)	100 year Betwee  X Part of x Part of Duration inundary	
	3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average None or none apparent (12)  x Recovered (7)  Recovering (3)		Semi- tr x Regular Season Season Check all disditch dike tile	double check & average) o permanently inundated/saturated (4) rly inundated/saturated (3) ally inundated (2) ally saturated in upper 30cm (12in) (1)  turbances observed
34 9	Recent or no recovery (1)  Metric 4. Habitat Alteration and De		weir stormwater inpu <b>0 pts.)</b>	☑ dredging  Ut □ other- list
Subtotal Points	4a. Substrate disturbance. Score one or dou  None or none apparent (4)  x Recovered (3)  Recovering (2)  Recent or no recovery (1)	-		. ,
	4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  X Fair (3)  Poor to fair (2)  Poor (1)	Check all disturbar  ✓ mowing  ☐ grazing  ✓ clearcutting  ☐ selective cutting  ☐ woody debris removal  ☐ toxic pollutants	nces observe	or no recovery (1)  d  I shrub/sapling removal I herbaceous/aquatic bed removal I sedimentation I dredging I farming I nutrient emrichment

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 040

Site: Crooksville-	-North Newark 138 kV Transmission Line Rebuil	Date:	June 3, 2020
Wetland: w-b	I-20200603-04	Rater:	BL, SM
34 subtotal first pa	age Metric 5. Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all that apply and score as indicated  Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unrestrictake Plain Sand Prairies (Oak Openings Relict Wet Prairies (10 pts) Known occurrence state/federal threaten Significant migatory songbird/waterfowl had Category 1 Wetland. See Question 1 of	cted hydrolog () (10 pts) ned or endang nabitat or usag Qualitative Ra	y (5 pts)  ered species (10) ge (10 pts) ating. (-10 pts)
39 5 Subtotal Points	6a. Wetland Vegetation Communities Score all present using 0 to 3 scale	•	n Community Cover Scale
	Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	0 Emergent 2 Shrub Forest Mudflats	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
	Open water Other (list)	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
	6b. Horizontal (plan view) interspersion Select only one	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)  Moderately high (4)	Narrative	Description of Vegetation Quality
	Moderate (3) Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	x Low (1) None (0)  6c. Coverage of invasive plants.	moderate	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 threatened or endangered spp
	Refer to Table 1 ORAM long form for list.  Add or deduct points for coverage  Extensive >75 % cover (-5)  Moderate 25-75% cover (-3)	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
	x Sparse 5-25% cover (-1) Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	Absent (1)	0	Absent <0.1 ha (0.2471 acres)
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopography Score all present using 0 to 3 scole	3	High 4 ha (9.88 acres) or more
	Score all present using 0 to 3 scale  1 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale
	0 Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh 2 Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 040

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing North



#### Wetland 040

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 040

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing South



#### Wetland 040

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 040

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Line	ie Rebuild Proje	ect City/Cou	nty: Perry C	ounty	Sampling Date:	06/03/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-bl-20200603-06
Investigator(s): SM, BL		Section, T	ownship, Ra	nge: S 28 T 17N R 15V	N	
Landform (hillside, terrace, etc.): swale			Local relief (c	concave, convex, none):	concave	
Slope (%): 10 Lat: 39.84806		Long: -	82.19441		Datum: WGS 84	
Soil Map Unit Name: GnB - Glenford silt loam, 1 to 8 pe	ercent slope	s		NWI classif	fication: N/A	
Are climatic / hydrologic conditions on the site typical fo	or this time o	f year?	Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation, SoilX_, or Hydrologys	significantly (	•		Circumstances" present?	•	
Are Vegetation, Soil, or Hydrologyn				αplain any answers in Rer	-	
SUMMARY OF FINDINGS – Attach site ma					·	atures, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled A	rea		
			n a Wetland?		No	
Wetland Hydrology Present? Yes X No	,					
Remarks:						
Sampling point w-bl-20200603-06 point in to PEM Wet channel present throughout. Wetland drains to south,						
· · · · · · · · · · · · · · · · · · ·		50uii io 00 _		Significantly distance	Ultuying and ord	)SIU().
VEGETATION – Use scientific names of plan	nts. Absolute	Dominant	Indicator	T		1
<u>Tree Stratum</u> (Plot size: 30' )	% Cover	Species?	Status	Dominance Test wor	rksheet:	
1				Number of Dominant	Species That	
2.				Are OBL, FACW, or F	•	2 (A)
3				Total Number of Dom	inant Species	
4.				Across All Strata:		3 (B)
5		Tatal Cover		Percent of Dominant S	•	00 70/ (A/D)
Sapling/Shrub Stratum (Plot size: 15' )	·	=Total Cover		Are OBL, FACW, or F	AC:	66.7% (A/B)
1. Rosa multiflora	) 10	Yes	FACU	Prevalence Index wo	arkehoot:	
2. Salix interior	5	Yes	FACW	Total % Cover of		lv bv:
3.				OBL species 0		0
4.				FACW species 10	05 x 2 =	210
5.				FAC species 0	) x 3 =	0
	15	=Total Cover		FACU species 25	5 x 4 =	100
Herb Stratum (Plot size: 5' )				UPL species 2	2 x 5 =	10
Phalaris arundinacea	70	Yes	FACW	Column Totals: 13	`	320 (B)
2. Solidago gigantea	15	No	FACW	Prevalence Index :	= B/A =2.4	12
3. Urtica dioica	10	No No	FACW			
4. Cirsium arvense	10	No No	FACU	Hydrophytic Vegetat		
5. Galium aparine	5	No No	FACU	1 - Rapid Test for		etation
6. Packera aurea 7. Brassica pigra	3 2	No No	FACW UPL	X 2 - Dominance Te		
7. <u>Brassica nigra</u> 8.		INO	Url	4 - Morphological		wide supporting
9.					s or on a separate	
10.				Problematic Hydro	•	
	115	=Total Cover		<sup>1</sup> Indicators of hydric so		
Woody Vine Stratum (Plot size: 30')				be present, unless dis	•	
1. Vitis riparia	2	No	FACW	Hydrophytic		
2.				Vegetation		
	2	=Total Cover		Present? Yes	X No	
Remarks: (Include photo numbers here or on a separa	ate sheet.)					
Hydrophytic vegetation indicator present as dominance	e test > 50%	, dominant sp	ecies are FA	CW and FACU.		

Wetland 041

SOIL Sampling Point: bl-20200603-

		to the dep				tor or c	confirm the absence of	of indicators.)			
Depth	Matrix			x Featur							
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-3	10YR 4/3	90	10YR 4/6	10	С	PL	Loamy/Clayey	sandy to silty loam			
3-16	2.5Y 5/1	90	10YR 4/6	10	С	PL	Loamy/Clayey	sandy clay loam			
	- '		_								
-											
1 <sub>Type: C=C</sub>	Concentration, D=Dep	lotion PM:	-Poducod Matrix I		kod Sano		<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.			
	Indicators:	ietion, ixivi-	-Neduced Matrix, I	vio-ivias	Neu San	Gianis		s for Problematic Hydric Soils <sup>3</sup> :			
Histoso			Sandy Gle	eved Mat	rix (S4)			t Prairie Redox (A16)			
l <del></del> -	pipedon (A2)		Sandy Re	-				Manganese Masses (F12)			
	istic (A3)		Stripped M					Parent Material (F21)			
	en Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)			
	d Layers (A5)		Loamy Mu		eral (F1)			(Explain in Remarks)			
2 cm M	uck (A10)		Loamy Gle	eyed Mat	trix (F2)						
Deplete	d Below Dark Surface	(A11)	X Depleted I	Matrix (F	3)						
Thick Dark Surface (A12) Redox Da				rk Surfac	e (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and			
Sandy I	Mucky Mineral (S1)	Depleted [	Dark Sur	face (F7)		wetlar	nd hydrology must be present,				
5 cm M	ucky Peat or Peat (S3	5)	Redox De	pression	s (F8)		unless disturbed or problematic.				
Restrictive	Layer (if observed):										
Type:											
Depth (i	nches):						Hydric Soil Present	? Yes No			
Remarks:											
								of Hydric Soils in the United States,			
	, 2018. (https://www.n			OCUME	NTS/nrcs	s142p2_	_053171.pdf).				
Hydric soil i	ndicator present as lo	w chroma/	nign value matrix.								
11)/5501/	201										
HYDROL	JGY										
_	drology Indicators:										
	icators (minimum of o	ne is requi						y Indicators (minimum of two required)			
	Water (A1)		Water-Sta					ce Soil Cracks (B6)			
	ater Table (A2)		Aquatic Fa		•		Drainage Patterns (B10)				
X Saturati	` '		True Aqua					season Water Table (C2)			
	/larks (B1) nt Deposits (B2)		Hydrogen X Oxidized F					ish Burrows (C8) ation Visible on Aerial Imagery (C9)			
X Drift De	. , ,		Presence			_		ed or Stressed Plants (D1)			
	at or Crust (B4)		Recent Iro			-		norphic Position (D2)			
	posits (B5)		Thin Muck			104 0011	` '	Neutral Test (D5)			
	ion Visible on Aerial Ir	magery (B			` '		<u></u>				
	y Vegetated Concave		<i>'</i> —		` '						
Field Obse	rvations:	<u> </u>	· <u>—</u>		<u> </u>						
	ter Present? Ye	s x	No	Depth (i	nches):	3					
Water Table				Depth (i	· -	3					
Saturation F	Present? Ye	s X	No	Depth (i	nches):	0	Wetland Hydrolog	y Present? Yes X No			
(includes ca	pillary fringe)						<u> </u>				
Describe Re	ecorded Data (stream	gauge, mo	onitoring well, aeria	al photos	, previous	inspec	tions), if available:				
Remarks:			р.,								
								3 that drains through culvert to south to o Muskingum River, a TNW.			
michinitelli	Cacam 042 mat mat	HOWS WESL	C Turkey Kull tild	L HOWS H	511110 00	naulali	CICCK WAL HOWS WESL L	o maskingam river, a mivv.			

Project/Site: Crooksville-North Newark 138 kV Transmission L	Line Rebuild Proje	ct_ City/Cou	unty: Perry C	ounty	Sampling Date:	06/03/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-bl-20200603-07
Investigator(s): SM, BL		Section,	Township, Ra	nge: S 28 T 17N R 1	5W	
Landform (hillside, terrace, etc.): toeslope			Local relief (c	concave, convex, none	): <u>f</u> lat	
Slope (%): 3 Lat: 39.84808			-82.194345		Datum: WGS 84	
Soil Map Unit Name: GnB - Glenford silt loam, 1 to 8	percent slopes			NWI class		
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes x	No (If no, e	explain in Remarks.)	
Are Vegetation X , Soil , or Hydrology	significantly d	listurbed?		Circumstances" present		
Are Vegetation, Soil, or Hydrology	<del></del> '			xplain any answers in R		
SUMMARY OF FINDINGS – Attach site n	<del></del>				•	itures, etc.
Hydrophytic Vegetation Present? Yes	No x	ls the	e Sampled Aı			
	No X		in a Wetland?		No X	
	No X					
Remarks:						
Sample point out (Upland 040) for Wetland 039, local disturbed from farming. Not a wetland point, no wetland			d boundary or	າ edge of agricultural fi	eld. Vegetation signi	ificantly
<b>VEGETATION</b> – Use scientific names of pl						
VECETATION OUR CONTINUE HARRIST C. P.	Absolute	Dominant	Indicator	<u> </u>		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test w	orksheet:	
1.				Number of Dominar	•	
2.				Are OBL, FACW, or		1 (A)
3.				Total Number of Do	minant Species	2 (D)
4 5.				Across All Strata:		3 (B)
5.		Total Cover	. ———	Percent of Dominan Are OBL, FACW, or	•	33.3% (A/B)
Sapling/Shrub Stratum (Plot size: 15'		-10tai 00vc.		AIG ODE, I AOTT, S.	<u> </u>	13.570 (7.4.5)
1	-'			Prevalence Index v	worksheet:	
2.				Total % Cover		ly by:
3.				OBL species	0 x 1 =	0
4.				FACW species	3 x 2 =	6
5.				· -	30 x 3 =	90
	=	=Total Cover			98 x 4 =	392
Herb Stratum (Plot size: 5')				UPL species	0 x 5 =	0
1. Cirsium arvense	30	Yes	FACU		131 (A)	488 (B)
2. Parthenocissus quinquefolia	30	Yes	FACU	Prevalence Index	x = B/A = 3.7	3
3. Phalaris arundinacea	20	Yes	FAC	Lively and the Marga	- de- ledientous	
4. Galium aparine	15	No No	FACU	Hydrophytic Veget		. 4 . 4!
Stellaria media     Bromus inermis	10	No No	FACU FACU	2 - Dominance	or Hydrophytic Vege	Hation
7. Ambrosia trifida	5	No	FACU	3 - Prevalence I		
8. Poa pratensis	5	No	FAC		al Adaptations¹ (Pro	vide supporting
9. Packera glabella	3	No	FACW		arks or on a separate	
10. Allium canadense	3	No	FACU		drophytic Vegetation	
	131 =	Total Cover			soil and wetland hy	
Woody Vine Stratum (Plot size: 30'	)				disturbed or problem	
1				Hydrophytic		
2				Vegetation		
	=	=Total Cover		Present? Yes	s No_x	
Remarks: (Include photo numbers here or on a sep-	•					
No hydrophytic vegetation indicators present, domin	ant species are	e FAC and F	ACU			

Upland 040

SOIL Sampling Point: -bl-20200603

	cription: (Describe	to the depth				tor or c	onfirm the absence	of indicators	.)		
Depth	Matrix			x Featu		. 2	<b>-</b> .				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks		
0-6	10YR 4/3	100					Sandy		silty sand		
6-14	10YR 5/4	100					Loamy/Clayey		sandy loam		
		· <u></u>	_					_			
1 <sub>Tunor</sub> C-C	ancentration D-Dan	lation DM=F	Paduaad Matrix N		lead Can		<sup>2</sup> l coetie	n. Di =Doro Li	ning M-Motri	.,	
Hydric Soil	oncentration, D=Dep	ietion, Rivi=r	Reduced Matrix, N	vi5=ivias	sked San	d Grains		on: PL=Pore Li			
Histosol			Sandy Gle	ved Mat	trix (S4)			ast Prairie Redo	-	JUIIS .	
l ——	Histosol (A1) Histic Epipedon (A2) Sandy Gleyed Matrix (S4) Sandy Redox (S5)							n-Manganese M			
Black His			Stripped M					d Parent Materi			
l ——	n Sulfide (A4)		Dark Surfa	•	,			y Shallow Dark	, ,	2)	
	Layers (A5)		Loamy Mu					er (Explain in F	-	,	
2 cm Mu			Loamy Gle	-				` '	,		
l ——	d Below Dark Surface	(A11)	Depleted N	-							
Thick Da	Thick Dark Surface (A12)  Redox Dark Surface (F6)						<sup>3</sup> Indicate	ors of hydrophy	tic vegetation	and	
Sandy M	Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)						wet	land hydrology	must be pres	ent,	
5 cm Mu	cky Peat or Peat (S3	5)	Redox Dep	oression	ıs (F8)		unle	ess disturbed o	r problematic.		
Restrictive	Layer (if observed):										
Type:											
Depth (ir	nches):		<del></del>				Hydric Soil Prese	nt?	Yes	No	Χ
Remarks:	·		<del></del>								
This data for	m is revised from Mi	dwest Regio	nal Supplement \	ersion 2	2.0 to inc	ude the	NRCS Field Indicate	ors of Hydric Sc	ils in the Unit	ed State	es,
	2018. (https://www.n	rcs.usda.gov	//Internet/FSE_D	OCUME	NTS/nrc	s142p2_	053171.pdf)	-			
No hydric so	il indicators present										
HYDROLO	GY										
Wetland Hy	drology Indicators:										
Primary India	cators (minimum of o	ne is require	d; check all that a	apply)			Second	ary Indicators (	minimum of to	vo requ	ired)
Surface	Water (A1)		Water-Stai	ned Lea	aves (B9)		Sur	face Soil Crack	(s (B6)		
High Wa	ter Table (A2)		Aquatic Fa	ıuna (B1	3)			inage Patterns			
Saturatio	on (A3)		True Aqua				Dry	-Season Water	Table (C2)		
Water M	arks (B1)		Hydrogen	Sulfide (	Odor (C1	)		yfish Burrows (	,		
l —	t Deposits (B2)		Oxidized F	•		•	` '	uration Visible	•		9)
	oosits (B3)		Presence of			,		nted or Stresse			
	t or Crust (B4)		Recent Iro			lled Soil	· · · —	omorphic Positi	, ,		
	osits (B5)	(=-)	Thin Muck		` '		FA0	C-Neutral Test	(D5)		
	on Visible on Aerial Ir	0 ) ( /	Gauge or \		` '						
	Vegetated Concave	Suпасе (В	Other (Exp	olain in F	Remarks)						
Field Obser						_					
Surface Wat					inches):						
Water Table		s			inches):		Wetlered Hedge	· Du +2	V	N.	V
Saturation P		s	No X	Depth (i	inches):		Wetland Hydrol	ogy Present?	Yes	No_	
(includes cap		gauga man	itoring wall garia	Inhotoo	proviou	o inonoo	tions) if available:				
Describe Re	corded Data (stream	gauge, mon	noming well, aefla	i priotos	, previou	s mspec	uona), n available.				
Remarks:											
	y indicators present										
	•										
1											

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 041

Metric 1. Wetland Area (size). (max 6 pts)   Subtotal Points   Select one size class and assign score.   >50 acres (>20.2ha) (6 pts)	
Subtotal Points  Select one size class and assign score.	
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) x <0.1 acres (0.04ha) (0 pts)  Metric 2. Upland buffers and surrounding land use. (max 14 pts) 2a. Calculate average buffer width (select one, 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) x VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use (select one or double check & 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) x MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
Subtotal Points  2a. Calculate average buffer width (select one, 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)  X VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use (select one or double check & 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)  X MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)  X HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  LOW. Old field (>10 years), shrubland, young second growth forest. (5)  X MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)  HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
Matric O. Hardrada and America (O. 1942)	
14 12 Metric 3. Hydrology. (max 30 pts)	
Subtotal Points  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  X Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3b. Connectivity. Score all that apply.  X Between stream/lake and other human x Part of wetland/upland (e.g. forest), co	
3d. Duration inundation/saturation.  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3d. Duration inundation/saturation.  (select one or double check & average)  Semi- to permanently inundated/saturated (3)  Regularly inundated/saturated (3)  x Seasonally inundated (2)  Seasonally saturated in upper 30cm (1	
3e. Modifications to natural hydrologic regime.  (select one or double check & average)  None or none apparent (12)  Recovered (7)  X Recovering (3)  Recent or no recovery (1)  Season ally saturated in apper 30cm (1)  Check all disturbances observed  ditch point source (nonstorn dike filling/grading)  tile road bed/RR track  weir dredging	
24 10 Metric 4. Habitat Alteration and Development. (max 20 pts.)	
Subtotal Points  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  x Recovered (3)  Recovering (2)  Recent or no recovery (1)  Ac. Habitat alteration. Score one or double check  None or none apparent (9)  x Recovered (6)  Recovering (3)	cand average.
4b. Habitat development. Select one.  Recent or no recovery (1)  Excellent (7)	
Very good (6)     Check all disturbances observed       Good (5)     ✓ mowing     ☐ shrub/sapling removal       Moderately good (4)     ☐ grazing     ☐ herbaceous/aquatic bed removal       Fair (3)     ☐ clearcutting     ☐ sedimentation       Poor to fair (2)     ☐ selective cutting     ☐ dredging       X     Poor (1)     ☐ woody debris removal     ☐ farming       ☐ toxic pollutants     ☐ nutrient emrichment	oval

ORAM v. 5.0 Field Form Quantit	-	Doto	luna 2, 2020
	North Newark 138 kV Transmission Line Rebuil		June 3, 2020
Wetland: w-b	I-20200603-06	Rater:	BL, SM
24 subtotal first pa	age		
24 0 Subtotal Points	Metric 5. Special Wetlands. (max 10 pts.)  Check all that apply and score as indicated  Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unre Lake Plain Sand Prairies (Oak Opening Relict Wet Prairies (10 pts) Known occurrence state/federal threate	ricted hydrolog s) (10 pts)	y (5 pts)
	Significant migatory songbird/waterfowl		
	Category 1 Wetland. See Question 1 of	f Qualitative R	ating. (-10 pts)
22 -2 Subtotal Points	Metric 6. Plant Communities, interspersion  6a. Wetland Vegetation Communities  Score all present using 0 to 3 scale	•	ography. (max 20 pts.) n Community Cover Scale
	0 Aquatic bed 1 Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	1 Emergent 0 Shrub 0 Forest 0 Mudflats 0 Open water Other (list)	1 2	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality  Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
	6b. Horizontal (plan view) interspersion Select only one	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)		
	Moderately high (4)	Narrative	Description of Vegetation Quality
	Moderate (3)  Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Low (1) x None (0)  6c. Coverage of invasive plants.	moderate	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 threatened or endangered spp
	Refer to Table 1 ORAM long form for list.  Add or deduct points for coverage  Extensive >75 % cover (-5)  X Moderate 25-75% cover (-3)	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
	Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Quality
	Nearly Absent <5% cover (0) Absent (1)	0	Absent <0.1 ha (0.2471 acres)
	Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more
	Score all present using 0 to 3 scale  0 Vegetated hummocks/tussocks		ography Cover Scale
	0 Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh 0 Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 041

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 041

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 041

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing South



#### Wetland 041

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 041

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Lin	ne Rebuild Proje	ct City/Cou	nty: Perry C	ounty Sampling Date: 06/03/2020
Applicant/Owner: AEP				State: OH Sampling Point: w-bi-20200603-07
Investigator(s): SM, BL		Section, T	ownship, Rai	nge: S 28 T 17N R 15W
Landform (hillside, terrace, etc.): depression			_ocal relief (c	concave, convex, none): concave
Slope (%): 3 Lat: 39.85054		Long: -	82.19714	Datum: WGS 84
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 8 to 1	5 percent slo			NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for	-	-	Yes x	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologys		•		Circumstances" present? Yes x No
Are Vegetation, Soil, or Hydrology				plain any answers in Remarks.)
<del></del>				cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No	<u> </u>	Is the	Sampled Ar	rea
	<u> </u>		a Wetland?	
Wetland Hydrology Present? Yes X No				<del></del> <del></del>
Remarks:		<u> </u>		
				ed and drains to west via ephemeral Stream 045 to an
NWI mapped pond. Wetland is a depression in a swal		emeral Stream	n 045.	
<b>VEGETATION</b> – Use scientific names of pla				
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	70 COVE	Opecies:	Otatus	Number of Dominant Species That
2.				Are OBL, FACW, or FAC: 2 (A)
3.				Total Number of Dominant Species
4.				Across All Strata: 2 (B)
5				Percent of Dominant Species That
	=	Total Cover		Are OBL, FACW, or FAC: 100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'				
1. Ulmus americana	2 2	No No	FACW	Prevalence Index worksheet:
Fraxinus pennsylvanica     3.		No	FACW	Total % Cover of:         Multiply by:           OBL species         20         x 1 = 20
4.				FACW species 89 x 2 = 178
5.				FAC species 0 x 3 = 0
	4 =	Total Cover		FACU species 0 x 4 = 0
Herb Stratum (Plot size: 5' )				UPL species 0 x 5 = 0
Impatiens pallida	30	Yes	FACW	Column Totals: 109 (A) 198 (B)
2. Agrostis gigantea	30	Yes	FACW	Prevalence Index = B/A = 1.82
3. Typha angustifolia	20	No	OBL	
4. <u>Dichanthelium clandestinum</u>	15	No	FACW	Hydrophytic Vegetation Indicators:
5. Agrimonia parviflora	10	No	FACW	X 1 - Rapid Test for Hydrophytic Vegetation
6.				X 2 - Dominance Test is >50%
7.				X 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8 9.				data in Remarks or on a separate sheet)
10.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
· · ·	105 =	Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30'				be present, unless disturbed or problematic.
1.				Hydrophytic
2.				Vegetation
	=	Total Cover		Present? Yes X No
Remarks: (Include photo numbers here or on a separ	,			
Hydrophytic vegetation indicator present as rapid test	, dominant sp	ecies are OB	L and FACW	

Wetland 042

SOIL Sampling Point: bl-20200603-

Profile Desc	ription: (Describe	to the dept	h needed to doc	ument th	ne indica	tor or c	confirm the absence of	of indicators.)	
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rema	rks
0-4	10YR 4/2	100					Loamy/Clayey	silty clay	loam
4-16	10YR 5/2	90	10YR 4/4	10	С	PL	Loamy/Clayey	silty to sandy	clay loam
									_
							_		
			_						
<sup>1</sup> Type: C=Co	oncentration, D=Dep	letion RM=	Reduced Matrix M	/S=Mas	ked Sand	Grains	<sup>2</sup> I ocation:	: PL=Pore Lining, M=	Matrix
Hydric Soil		100011, 1 011	rtoddodd WidthX, T	iio iiiao	nou oune	Oranio		s for Problematic Hy	
Histosol			Sandy Gle	yed Matı	rix (S4)			t Prairie Redox (A16)	
Histic Ep	ipedon (A2)		Sandy Red	dox (S5)			Iron-N	Manganese Masses (F	<sup>-</sup> 12)
Black His	stic (A3)		Stripped M	latrix (S6	5)		Red F	Parent Material (F21)	
Hydroge	n Sulfide (A4)		Dark Surfa	ce (S7)			Very	Shallow Dark Surface	(F22)
Stratified	Layers (A5)		Loamy Mu	cky Mine	eral (F1)		Other	(Explain in Remarks)	1
2 cm Mu	, ,		Loamy Gle	yed Mat	rix (F2)				
	Below Dark Surface	e (A11)	X Depleted N				2		
Thick Dark Surface (A12)				k Surfac	` '			s of hydrophytic veget	
	ucky Mineral (S1)	Depleted [		, ,			nd hydrology must be	-	
5 cm Mu	cky Peat or Peat (S3	3)	Redox Dep	pression	s (F8)		unles	s disturbed or problen	natic.
	Layer (if observed):								
Type:			_						
Depth (ir	iches):		<u> </u>				Hydric Soil Present	:? Yes_	No
Remarks:									
	m is revised from Mi 2018. (https://www.r						NRCS Field Indicators	s of Hydric Soils in the	United States,
	dicator present as lo			OCUME	IN I S/IIICS	142p2_	_055171.pai).		
,	a.oa.o. p. ooo ao .o								
HYDROLO	icv								
_	drology Indicators: cators (minimum of o	no io roquir	ad: abook all that	annlu)			Sacandar	y Indicators (minimum	of two required)
	water (A1)	ile is requir	Water-Stai		vec (R0)			ce Soil Cracks (B6)	rortwo required)
	ter Table (A2)		Aquatic Fa					age Patterns (B10)	
Saturation	` '		True Aqua	•	•			Season Water Table (C	(2)
	arks (B1)		Hydrogen					ish Burrows (C8)	/
	t Deposits (B2)		Oxidized F					ation Visible on Aerial	Imagery (C9)
	osits (B3)		Presence	of Reduc	ed Iron (	C4)	` '	ed or Stressed Plants	• • • •
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soil	s (C6) X Geom	norphic Position (D2)	
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		X FAC-	Neutral Test (D5)	
Inundation	on Visible on Aerial I	magery (B7)	Gauge or \	Nell Data	a (D9)				
Sparsely	Vegetated Concave	Surface (B	8)Other (Exp	lain in R	emarks)				
Field Obser	vations:								
Surface Wat	er Present? Ye	es			nches): _				
Water Table	Present? Ye	s			nches):				
Saturation P		es	No <u>X</u>	Depth (ii	nches): _		Wetland Hydrolog	gy Present? Yes _	X No
(includes cap	<u> </u>						1		
Describe Re	corded Data (stream	gauge, moi	nitoring well, aeria	I photos,	previous	inspec	tions), if available:		
Remarks:									
	ondary hydrology ind	icators pres	ent. Primary sourc	es of hy	drology a	re ephe	emeral flow from Stream	m 045 and concentrati	on of precipitation
•	, , , , ,		•	•	٠,	•	e study area to NWI-m		
Turkey Run.									

Project/Site: Crooksville-North Newark 138 kV Transmissi	on Line Rebuild Project	City/Cou	inty: Perry C	ounty	Sampling Date	: 06/03/2020
Applicant/Owner: AEP				State: OH	Sampling Point	upl-bl-20200603-08
Investigator(s): SM, BL		Section, 7	Township, Ra	nge: S 28 T 17N R 15W	I	
Landform (hillside, terrace, etc.): hillslope			Local relief (c	concave, convex, none): <u>c</u>	convex	
Slope (%): 10 Lat: 39.85059		Long: -	82.19721	]	Datum: NAD83	
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 6	6 to 12 percent slop	es, eroded		NWI classifi	cation: N/A	
Are climatic / hydrologic conditions on the site typi	cal for this time of y	/ear?	Yes x	No (If no, exp	lain in Remarks.	)
Are Vegetation, Soil, or Hydrology	significantly dis	sturbed? /	Are "Normal C	Circumstances" present?	Yes x	No
Are Vegetation , Soil , or Hydrology			If needed, ex	plain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site	 e map showing	samplin	g point lo	cations, transects,	important fe	atures, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled A	rea		
Hydric Soil Present? Yes	No X		n a Wetland?		No X	
Wetland Hydrology Present? Yes	No X					
Remarks:						
Sampling point out (Upland 041) for Wetland 042 criteria met	, located about 5' n	orthwest of	wetland bour	ndary at higher elevation.	Not a wetland po	oint, no wetland
VEGETATION – Use scientific names of	Absolute	Dominant	Indicator	T		
<u>Tree Stratum</u> (Plot size: 30' )		Species?	Status	Dominance Test wor	ksheet:	
1.				Number of Dominant S	Species That	
2				Are OBL, FACW, or FA	AC:	4 (A)
3.				Total Number of Domi	nant Species	
4				Across All Strata:		9 (B)
5		Γotal Cover		Percent of Dominant S	•	44.4% (A/B)
Sapling/Shrub Stratum (Plot size: 15'		i otai Covei		Are OBL, FACW, or FA	4C	44.4% (A/D)
Rubus occidentalis	/ 	Yes	UPL	Prevalence Index wo	rksheet:	
2. Fraxinus pennsylvanica	3	Yes	FACW	Total % Cover of:		oly by:
3. Juglans nigra	2	Yes	FACU	OBL species 0		0
4.				FACW species 13	x 2 =	26
5				FAC species 45		135
New Otration (District	10=	Total Cover		FACU species 42		168
Herb Stratum (Plot size: 5' )  1. Panicum virgatum	30	Yes	FAC	UPL species 5 Column Totals: 109	x 5 = 5 (A)	25 354 (B)
Panicum virgatum     Schedonorus arundinaceus	<u></u>	Yes	FACU	Prevalence Index =	`	37 (B)
Juncus tenuis	10	Yes	FAC	1 Tovalerioe iridex	B// 0.	
4. Agrimonia parviflora	10	Yes	FACW	Hydrophytic Vegetati	on Indicators:	
5. Cirsium arvense	10	Yes	FACU	1 - Rapid Test for	Hydrophytic Veg	etation
6. Solidago altissima	10	Yes	FACU	2 - Dominance Tes	st is >50%	
7. Carex amphibola	5	No	FAC	3 - Prevalence Ind		
8. Achillea millefolium		No	FACU	4 - Morphological		
9.	<del></del>				s or on a separat	
10	95 =	Total Cover		Problematic Hydro		
Woody Vine Stratum (Plot size: 30'	)	I Olai Covei		<sup>1</sup> Indicators of hydric so be present, unless dist		
1.				·	arbod of problem	naue.
2.	<del></del> .			Hydrophytic Vegetation		
	=1	Total Cover		Present? Yes_	No	Χ
Remarks: (Include photo numbers here or on a s	separate sheet.)					
No hydrophytic vegetation indicators present, dor	. ,					

Upland 041

SOIL Sampling Point: -bl-20200603

Profile Desc Depth	ription: (Describe Matrix	to the dep		ument t		tor or o	confirm the absence of	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	S
0-5	10YR 4/2	100			- 7		Loamy/Clayey	silty to sandy	
5-17	10YR 5/4	60	10YR 5/2	40					
3-17	101R 5/4		10113/2	40		IVI	Loamy/Clayey	sandy clay l	oam
<sup>1</sup> Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, I	MS=Mas	ked San	d Grains		PL=Pore Lining, M=M	
Hydric Soil	Indicators:						Indicator	s for Problematic Hyd	ric Soils³:
Histosol	` '		Sandy Gle					t Prairie Redox (A16)	
	ipedon (A2)		Sandy Re					Manganese Masses (F1	2)
Black His	` '		Stripped N	•	3)			Parent Material (F21)	
	n Sulfide (A4)		Dark Surfa	, ,				Shallow Dark Surface (F	<sup>-</sup> 22)
	Layers (A5)		Loamy Mu	-			Other	(Explain in Remarks)	
2 cm Mu	` '	(0.4.4)	Loamy Gle						
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Depleted Matrix (F3)  Redox Dark Surface (F6)						<sup>3</sup> Indicator	s of hydrophytic vegetat	ion and	
	ucky Mineral (S1)		Depleted [		, ,			nd hydrology must be p	
	cky Peat or Peat (S3	)	Redox De		, ,			s disturbed or problema	
		•	ROUGH BO	pression	3 (1 0)	I	411100	o diotarbod or problema	
	Layer (if observed):								
Type: Depth (in	ochee).		<u> </u>				Hydric Soil Present	? Yes	No X
Remarks:							Tryunc don't resem		
	2018. (https://www.n il inidicators present	rcs.usda.g	ov/Internet/FSE_D	OCUME	NTS/nrc	s142p2_	_053171.pdf)		
HYDROLO	GY								
Wetland Hyd	drology Indicators:								
_	cators (minimum of o	ne is requi	red; check all that	apply)			Secondar	y Indicators (minimum o	of two required)
	Water (A1)	•	Water-Sta		ives (B9)			ce Soil Cracks (B6)	
High Wa	ter Table (A2)		Aquatic Fa	auna (B1	3)		Drain	age Patterns (B10)	
Saturatio	on (A3)		True Aqua	itic Plant	s (B14)		Dry-S	eason Water Table (C2	)
Water Ma	arks (B1)		Hydrogen	Sulfide (	Odor (C1	)		ish Burrows (C8)	
Sedimen	t Deposits (B2)		Oxidized F	•		•		ation Visible on Aerial Ir	
	osits (B3)		Presence					ed or Stressed Plants ([	01)
	t or Crust (B4)		Recent Iro			lled Soil		norphic Position (D2)	
	osits (B5)	(D.	Thin Muck				FAC-	Neutral Test (D5)	
	on Visible on Aerial I	0 , (	<i>'</i> —		` '				
	Vegetated Concave	Surface (E	38) Other (Exp	Diain in F	kemarks)				
Field Observ		_	No. V	Danath (		0			
Surface Water Table					nches): _				
Saturation P		s			nches): _ nches):		Wetland Hydrolog	y Present? Yes	No X
(includes cap		<u> </u>	NO_X	Deptii (i			vvetiana myarolog	gy Fresent: Tes	
	corded Data (stream	gauge mo	onitoring well aeria	l photos	. previou	s inspec	tions), if available		
2 2 3 3 1 1 0 1		J			, p. 0 1100	opoc	, aranabio.		
Remarks:									
No hydrology	/ indicators present								

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 042

Site: Crooksville-North Newark 138 kV Transmission Line Rebuild Project Date: June 3, 2020

	ie-North Newark 138 KV Transmission L	ine Rebuild Project	Date: June 3, 2020
Wetland: w	r-bl-20200603-07		Rater: BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha)  10 to <25 acres (4 to <10.1ha) (3 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12)  x <0.1 acres (0.04ha) (0 pts)	a) (5 pts) (4 pts) ots) (2pts)	
7 7 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one  WIDE. Buffers average 50m (10  X MEDIUM. Buffers average 25m  NARROW. Buffers average 10i  VERY NARROW. Buffers average  2b. Intensity of surrounding land use (select of the surrounding land use)  VERY LOW. 2nd growth or olded to the surrounding land use (select of the surrounding land use)  NERY LOW. 2nd growth or olded to the surrounding land use (select of the surrounding land use)  NERY LOW. 2nd growth or olded to the surrounding land use (select of the surrounding land use)  NERY LOW. 2nd growth or olded the surrounding land use (select of the surrounding land use)	e, do not double check) 64ft) or more around wetlan in to <50m (82 to <164ft) around in to <25m (32ft to <82ft) ar age <10m (<32ft) around we interest, prairie, savannah, rubland, young second grow atial, fenced pasture, park, co	ad perimeter (7) und wetland perimeter (4) round wetland perimeter (1) etland perimeter (0)  age) wildlife area, etc. (7) with forest. (5) onservation tillage, new fallow field. (3)
22 15 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  X Seasonal/Intermittent surface with Perennial surface water (lake or sold of the sold	ater (3) stream) (5) 3d.  (9)	Connectivity. Score all that apply.  100 year floodplain (1)  x Between stream/lake and other human use (1)  x Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)  Duration inundation/saturation.  (select one or double check & average)  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  Seasonally inundated (2)  x Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed ditch  point source (nonstormwater) dike  filling/grading tile  road bed/RR track weir  dredging stormwater input other- list
29 7 Subtotal Points	Metric 4. Habitat Alteration and De  4a. Substrate disturbance. Score one or dout  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  x Poor (1)	ible check and average.	Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)  Ces observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

Site: Crooksville-North N	ewark 138 kV Transmission Line Rebui	Date:	June 3, 2020					
Wetland: w-bl-202006		Rater:	BL, SM					
vvetiaiiu. w-bi-202000	303-07	Nater.	DL, SIVI					
29 subtotal first page								
29 0 Metric	5. Special Wetlands. (max 10 pts.)							
	Il that apply and score as indicated							
	Bog (10 pts)							
	Fen (10 pts)							
	Old Growth Forest (10 pts)							
	Mature forested wetland (5 pts)							
	Lake Erie coastal/tributary wetland-unre	-						
	Lake Erie coastal/tributary wetland-restr	, ,	y (5 pts)					
	Lake Plain Sand Prairies (Oak Opening	s) (10 pts)						
	Relict Wet Prairies (10 pts)  Known occurrence state/federal threate	ned or endand	ered species (10)					
	Significant migatory songbird/waterfowl	_						
	Category 1 Wetland. See Question 1 or							
31 2 Metric	6. Plant Communities, interspersion	n, microtop	ography. (max 20 pts.)					
Subtotal Points <u>6a. Wet</u>	land Vegetation Communities							
Score all	I present using 0 to 3 scale	Vegetatio	n Community Cover Scale					
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area					
	1 Emergent		, , ,					
	0 Shrub 0 Forest	1	Present and either comprises small part of wetland's vegetation and is					
	0 Forest 0 Mudflats	!	of moderate quality, or comprises a significant part but is of low quality					
	0 Open water		Present and either comprises significant part of wetland's vegetation					
	Other (list)	2	and is of moderate quality or comprises a small part and is of high					
			quality					
<u>6b. Hori</u>	izontal (plan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation					
Select or	nly one		and is of high quality					
	High (5)	Morrotivo	Description of Vegetation Quality					
	Moderately high (4) Moderate (3)	Narrative	Description of Vegetation Quality					
	Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species					
	Low (1)		·					
	x None (0)		Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present,					
		moderate	and species diversity moderate to moderately high, but generally w/o					
6c. Cove	erage of invasive plants.		presence of rare threatened or endangered spp					
	Table 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or					
Add of d	leduct points for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp					
	Extensive >75 % cover (-5)		diversity and often, but not always, the presence of rare, threatened, or endangered spp					
	Moderate 25-75% cover (-3)  x Sparse 5-25% cover (-1)		<u> </u>					
	Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality					
	Absent (1)	0	Absent <0.1 ha (0.2471 acres)					
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)					
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)					
6d. Micr	rotopography	3	High 4 ha (9.88 acres) or more					
Score all	I present using 0 to 3 scale							
	2 Vegetated hummocks/tussocks		ography Cover Scale					
	0 Coarse woody debris >15 cm (6") 0 Standing dead > 25 cm (10") dbh	0	Absent					
	0 Standing dead > 25 cm (10 ) dbn  Amphibian breeding pools	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 and of highest quality					



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 042

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 042

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 042

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 042

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 042

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lin	ie Rebuild Proje	ect_ City/Cou	nty: Perry C	ounty	Sampling Date: 06/03/2020
Applicant/Owner: AEP				State: OH	Sampling Point: w-bl-20200603-08a
Investigator(s): SM, BL		Section, T	Township, Ra	inge: S 21 T 17N R 15	W
Landform (hillside, terrace, etc.): hillslope			Local relief (c	concave, convex, none):	concave
Slope (%): 10 Lat: 39.85248			82.19897	· •	Datum: WGS 84
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 8 to 1	5 percent sk		·		fication: N/A
Are climatic / hydrologic conditions on the site typical fo	-	-	Yes x		
Are Vegetation , Soil X , or Hydrology s		•			Yes x No
Are Vegetation , Soil , or Hydrology r				plain any answers in Re	
SUMMARY OF FINDINGS – Attach site ma					•
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled A	roa	
	<u> </u>		n a Wetland?		No
Wetland Hydrology Present? Yes X				·	<u></u> -
Remarks:					
Sampling point in (w-bl-20200603-08a) for PEM comp Wetland exhibits significantly disturbed soils- rocky an					
1. C		ieu, pussiviy r	י קווטו נט סנווף	Tille. vveuana aramo ao.	Misiope to the west and is
VEGETATION – Use scientific names of pla		Dominant	Indicator	т ———	
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wo	rksheet:
1.	70 0012	Оресла	<u> </u>	Number of Dominant	
2.				Are OBL, FACW, or F	•
3.				Total Number of Dom	
4.				Across All Strata:	4 (B)
5.				Percent of Dominant	•
	=	=Total Cover		Are OBL, FACW, or F	AC: 100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15')	1				
1.				Prevalence Index wo	
2.				Total % Cover of	
3.				· —	8 x 1 = 18
4.				· -	$\frac{5}{0}$ $\times 2 = \frac{110}{120}$
5		=Total Cover		· -	x = 120 $x = 20$
Herb Stratum (Plot size: 5' )		- I DIAI COVEI			$\frac{5}{3}$ $x = \frac{20}{15}$
1. Agrostis gigantea	20	Yes	FACW	Column Totals: 12	
Packera glabella	15	Yes	FACW	Prevalence Index	
Vernonia gigantea	15	Yes	FAC		
4. Juncus tenuis	15	Yes	FAC	Hydrophytic Vegeta	tion Indicators:
5. Scirpus atrovirens	10	No	OBL		r Hydrophytic Vegetation
6. Cyperus strigosus	10	No	FACW	X 2 - Dominance Te	
7. Rumex crispus	10	No	FAC	X 3 - Prevalence In	
8. Juncus effusus	5	No	OBL		Adaptations <sup>1</sup> (Provide supporting
9. Alopecurus pratensis	5	No	FACW	data in Remark	ks or on a separate sheet)
10. Poa compressa	5	No	FACU	Problematic Hydr	ophytic Vegetation <sup>1</sup> (Explain)
	121 =	=Total Cover		-	soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30')	)			be present, unless dis	sturbed or problematic.
1				Hydrophytic	
2		Tatal Cover		Vegetation	V N
		=Total Cover		Present? Yes	XNo
Remarks: (Include photo numbers here or on a separ	,	delooptor	: FAC\A/		
Hydrophytic vegetation indicator present as dominanc	e test > 50%	, dominant sp	ecies facvv	and FAC.	

US Army Corps of Engineers

Sampling Point: w-bl-20200603-08a

### **VEGETATION Continued** – Use scientific names of plants.

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata:
6				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				
9				Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
11.				Herb – All herbaceous (non-woody) plants, including
12				herbaceous vines, regardless of size, and woody
13				plants less than 3.28 ft tall.
Sapling/Shrub Stratum		=Total Cover		<b>Woody Vine</b> – All woody vines greater than 3.28 ft in height.
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
_		=Total Cover		
Herb Stratum				
11. Persicaria maculosa	5	No	FACW	
12. Mimulus ringens	3	No	OBL	
13. Brassica nigra	3	No	UPL	
14.				
15.				
16.				
17.				
18.				
19				
20				
21				
22				
_	121	=Total Cover		
Woody Vine Stratum				
3				
4				
5				
6				
7				
_		=Total Cover		
Remarks: (Include photo numbers here or on a separa	ite sheet.)			

SOIL Sampling Point: <u>pl-20200603-(</u>

Depth	Matrix			x Featur			onfirm the absence			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	F	Remarks	
0-19	2.5Y 4/1	95	2.5Y 4/4	5	С	PL	Sandy	sand	y clay loar	n
		<u> </u>								
		<del></del>								
	-							-		
	oncentration, D=De	oletion, RM	=Reduced Matrix, N	/IS=Mas	ked San	d Grains		: PL=Pore Lining		•
Hydric Soil			0 1 01 -		······································			s for Problemat	-	Soils":
Histosol	` '		Sandy Gle	-				t Prairie Redox (/		
	_ Histic Epipedon (A2)X Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6)						Manganese Mass			
	` '				0)			Parent Material (F	,	١
	n Sulfide (A4) d Layers (A5)		Dark Surfa Loamy Mu		oral (E1)			Shallow Dark Su r (Explain in Rem		)
	ick (A10)		Loamy Gle	-				i (Expiaiii iii iteiii	aiks)	
	d Below Dark Surfac	e (Δ11)	Depleted N							
	ark Surface (A12)	· (/ (/ / / /	Redox Dai	`	,		<sup>3</sup> Indicator	s of hydrophytic	vegetation	and
	Sandy Mucky Mineral (S1)  Depleted D				` '	)		nd hydrology mu	-	
	ıcky Peat or Peat (S	3)	Redox De			unless disturbed or problematic.			,	
	Layer (if observed)		<u> </u>							
Type:	_ayor ( oboo. voa)	·•								
Depth (ii	nches):						Hydric Soil Present	t? Y	'es	No
Remarks:										
	2018. (https://www. ndicator present as l						trations in pore linings	in sandy soils.		
HYDROLO	)GY									
Wetland Hy	drology Indicators	:								
_	cators (minimum of		ired; check all that	apply)			Seconda	ry Indicators (min	imum of tv	vo required
Surface	Water (A1)		Water-Sta	ned Lea	ives (B9)		Surfa	ice Soil Cracks (E	36)	
·	iter Table (A2)		Aquatic Fa					age Patterns (B1	•	
Saturation			True Aqua					Season Water Ta		
	arks (B1)		Hydrogen		•	•		fish Burrows (C8)		
	nt Deposits (B2)		X Oxidized F			_		ration Visible on A	_	jery (C9)
	oosits (B3)		Presence					ed or Stressed P		
	at or Crust (B4)		Recent Iro			lied Soli		norphic Position (		
	oosits (B5) on Visible on Aerial	lmagary (B	<ul><li>Thin Muck</li><li>Gauge or '</li></ul>				<u>X</u> FAC-	Neutral Test (D5	)	
	Vegetated Concav									
Field Obser		c currace (	Other (Exp	naiii iii i	(cmarks)		1			
Surface Wat		es	No X	Denth (i	nches):	0				
Water Table		es		Depth (i	· -					
Saturation P		es		Depth (i	_		Wetland Hydrolog	av Present? Y	es X	No
	pillary fringe)			' '	/_					
	corded Data (stream	n gauge, m	onitoring well, aeria	l photos	, previou	s inspec	tions), if available:			
				<u>.                                    </u>						
Remarks:										
	•		••		-		ydrology are groundwa			
			•				study area through dra Muskingum River, a	•		ed stream

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line	e Rebuild Proje	ect_ City/Cou	nty: Perry C	ounty	Sampling Dat	e: <u>06/03</u>	3/2020
Applicant/Owner: AEP				State: OH	Sampling Poir		200603-08b
Investigator(s): SM, BL		Section, T	ownship, Ra	nge: S 21 T 17N R 15\	Ν		
Landform (hillside, terrace, etc.): depression		!	Local relief (c	concave, convex, none):	concave		
Slope (%): 3 Lat: 39.85286		Long:	82.19948		Datum: WGS 84	4	
Soil Map Unit Name: MeC - Mentor silt loam, gravelly s	ubstratum, 8	3 to 15 percen	t slopes	NWI classif	fication: N/A		
Are climatic / hydrologic conditions on the site typical fo	or this time of	f year?	Yes x	No (If no, exp	olain in Remarks	5.)	
Are Vegetation, Soil, or Hydrologys	significantly c	-		Circumstances" present?		•	
Are Vegetation, Soilx_, or Hydrologyn				κplain any answers in Rei			•
SUMMARY OF FINDINGS – Attach site ma					•	eatures,	etc.
Hydrophytic Vegetation Present? Yes X No	)	Is the	Sampled Ar	rea			
		withir	n a Wetland?	? Yes X	No		
Wetland Hydrology Present? Yes X No							
Remarks:	: \^/-+lo	: 0.105 - DE		· · · · · · · · · · · · · · · · · · ·		· f-llov	e 14
Sampling point in (w-bl-20200603-08b) for PSS compound wetland exhibits significantly disturbed soils- rocky and					a hillside seepaç	ge in fallov	v field.
VEGETATION – Use scientific names of plan				ion prosent.			
VEGETATION – Use scientific frames of plat	Absolute	Dominant	Indicator	ī			
<u>Tree Stratum</u> (Plot size:30')	% Cover	Species?	Status	Dominance Test wo	rksheet:		
1				Number of Dominant	Species That		
2.			!	Are OBL, FACW, or F	AC:	3	(A)
3.			!	Total Number of Dom	inant Species	_	
4.			!	Across All Strata:		3	_(B)
5		=Total Cover		Percent of Dominant : Are OBL, FACW, or F	•	100.0%	(A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: 15' )		=10tal Cover	ļ	Are Obl. I Acvv, or a	AC	100.070	(A/D)
1. Sambucus nigra	40	Yes	FAC	Prevalence Index wo	orksheet:		
2. Salix amygdaloides	5	No	FACW	Total % Cover of		iply by:	
3. Rubus occidentalis	5	No	UPL	OBL species 3		35	•
4. Rosa multiflora	3	No	FACU	FACW species 5	0 x 2 =	100	_
5.				FAC species 4		126	<u>.</u>
	53	=Total Cover	- !	FACU species 1		72	-
Herb Stratum (Plot size: 5' )				UPL species 5	x 5 =	25	-
1. Carex lupulina	30	Yes	OBL	Column Totals: 15	` _	358	_(B)
2. Solidago gigantea	30	Yes	FACW	Prevalence Index	= B/A =2	2.39	-
3. Agrostis gigantea	15 10	No No	FACW FACU	Ludraphytic Vegeta	tian Indicators:		
Poa compressa     Juncus effusus	5	No	OBL	Hydrophytic Vegetat  1 - Rapid Test for			
6. Asclepias syriaca	5	No	FACU	X 2 - Dominance Te		устанон	
7. Apocynum cannabinum	2	No	FAC	X 3 - Prevalence Inc			
8				4 - Morphological		rovide sup	porting
9.				· -	s or on a separa		<u>'</u>
10				Problematic Hydr	ophytic Vegetati	on¹ (Expla	ıin)
	97	=Total Cover		<sup>1</sup> Indicators of hydric s			must
Woody Vine Stratum (Plot size: 30')			ŀ	be present, unless dis	turbed or proble	matic.	
1.				Hydrophytic			
2		<del></del>		Vegetation	W No		
		=Total Cover		Present? Yes	X No_		
Remarks: (Include photo numbers here or on a separa	,	' deminant on	i oro OF	C			
Hydrophytic vegetation indicator present as dominance	e lest > 50 %	, dominant sp	ecies are OD	SL, FACW and FAC.			

SOIL Sampling Point: <u>pl-20200603-(</u>

Profile Desc	cription: (Describe	to the dep	th needed to doc	ument th	ne indica	tor or o	confirm the absence of	of indicators.)	
Depth	Matrix		Redo	x Featur					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-4	10YR 4/2	95	10YR 5/1	5	D	M	Loamy/Clayey	sandy to silty loam	
4-16	10YR 5/2	90	10YR 4/6	10	C	PL	Loamy/Clayey	sandy clay loam	
1									
	oncentration, D=Dep	letion, RM=	Reduced Matrix, N	/IS=Mas	ked Sand	Grains		PL=Pore Lining, M=Matrix.	
Hydric Soil			Canada Cla		-iv (C4)			s for Problematic Hydric Soils <sup>3</sup> :	
Histosol	,		Sandy Gle	-				: Prairie Redox (A16) ⁄Ianganese Masses (F12)	
	Histic Epipedon (A2)  Black Histic (A3)  Sandy Redox (S5)  Stripped Matrix (S6)						Parent Material (F21)		
	Hydrogen Sulfide (A4)  Dark Surface (S7)							Shallow Dark Surface (F22)	
	d Layers (A5)		Loamy Mu	, ,	eral (F1)			(Explain in Remarks)	
	ick (A10)		Loamy Gle	-				(27-prain in remaine)	
	d Below Dark Surface	e (A11)	X Depleted N	-					
	Thick Dark Surface (A12) Redox Dark Surface (F6)						<sup>3</sup> Indicators	s of hydrophytic vegetation and	
Sandy Mucky Mineral (S1) Depleted					face (F7)		wetla	nd hydrology must be present,	
5 cm Mucky Peat or Peat (S3) Redox Depressions (F8)							unles	s disturbed or problematic.	
Restrictive Layer (if observed):									
Type:									
Depth (ir	nches):						<b>Hydric Soil Present</b>	? Yes No	
Remarks:									
								of Hydric Soils in the United States,	
	2018. (https://www.n					142p2_	_053171.pdf).		
Hydric soil ir	ndicator present as lo	w chroma/h	nigh value matrix ir	n clayey	soils.				
HYDROLC	)GY								
Wetland Hy	drology Indicators:								
Primary Indi	cators (minimum of o	ne is requir	ed; check all that a	apply)			<u>Secondar</u>	y Indicators (minimum of two required)	
Surface	Water (A1)		Water-Stai					ce Soil Cracks (B6)	
High Wa	iter Table (A2)		Aquatic Fa	una (B1	3)		X Drain	age Patterns (B10)	
Saturation	` '		True Aqua					eason Water Table (C2)	
	arks (B1)		Hydrogen					sh Burrows (C8)	
	nt Deposits (B2)		X Oxidized F			-		ation Visible on Aerial Imagery (C9)	
	oosits (B3)		Presence of Recent Iro		,	,		ed or Stressed Plants (D1) norphic Position (D2)	
	at or Crust (B4) posits (B5)		Thin Muck			ieu Suii		Neutral Test (D5)	
	on Visible on Aerial Ir	magery (B7			` '		<u>X</u> 170-1	vedital rest (D3)	
	Vegetated Concave								
Field Obser		`	,						
Surface Wat		s	No X	Depth (ii	nches):	0			
Water Table				Depth (ii	· -				
Saturation P				Depth (ii			Wetland Hydrolog	y Present? Yes X No	
(includes ca	(includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									
								eepage and concentration of inage swale to NHD-mapped stream	
		-					-	NW. Potentially isolated.	

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lir	ne Rebuild Projec	t_ City/Cou	ınty: Perry C	ounty	Sampling Date	: 06/03/2020			
Applicant/Owner: AEP				State: OH	Sampling Point	upl-bl-20200603-09			
Investigator(s): SM, BL		Section, 7	Γownship, Rar	nge: S 21 T 17N R	15W				
Landform (hillside, terrace, etc.): hillslope			Local relief (c	oncave, convex, nor	ne): convex				
Slope (%): 12 Lat: 39.85242		Long: -	-82.19903		Datum: NAD83				
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 8 to 1	5 percent slo	pes, eroded		NWI cla	assification: N/A				
Are climatic / hydrologic conditions on the site typical for	or this time of	year?	Yes x		, explain in Remarks.	)			
Are Vegetation, SoilX_, or Hydrologys	significantly di	sturbed? /	Are "Normal C		ent? Yes x				
Are Vegetation, Soil, or Hydrology				plain any answers in					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Yes x No	0 0	Is the	e Sampled Ar	·ea					
	o X		n a Wetland?		No X				
	0 X								
Remarks:	1.401								
Sample point out (Upland 042) for Wetland 043, locate past farming. Not a wetland point, no wetland criterial		outh of wetla	and boundary	at equal elevation.	Soils significantly disti	urbed due to			
<b>VEGETATION</b> – Use scientific names of pla	ints.								
·	Absolute	Dominant	Indicator						
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test					
1 2.				Number of Domin Are OBL, FACW,		1 (A)			
3.						<u> </u>			
<u> </u>				Total Number of D Across All Strata:	Jominant Species	2 (B)			
5.				Percent of Domina	ant Species That				
	=	Total Cover		Are OBL, FACW,	•	50.0% (A/B)			
Sapling/Shrub Stratum (Plot size: 15'	)								
1				Prevalence Index	x worksheet:				
2				Total % Cove	er of: Multip	oly by:			
3.				OBL species	0 x 1 =	0			
4				FACW species	40 x 2 =	80			
5		Tatal Cover		FACIL anguing	30 x 3 =	90			
Herb Stratum (Plot size: 5' )		Total Cover		FACU species UPL species	38 x 4 = 0 x 5 =	152 0			
1. Agrostis gigantea	30	Yes	FACW	Column Totals:	108 (A)	322 (B)			
Bromus arvensis	30	Yes	FACU	Prevalence Ind		98			
3. Stellaria media	20	No	FAC	11010.0.00					
4. Packera glabella	10	No	FACW	Hydrophytic Veg	etation Indicators:				
5. Poa pratensis	10	No	FAC		t for Hydrophytic Veg	etation			
6. Ambrosia artemisiifolia	5	No	FACU		e Test is >50%				
7. Allium canadense	3	No	FACU		e Index is ≤3.0 <sup>1</sup>				
8.					jical Adaptations <sup>1</sup> (Pro				
9.				data in Rer	narks or on a separat	e sheet)			
10				Problematic H	lydrophytic Vegetatio	n <sup>1</sup> (Explain)			
	108 =	Total Cover			ric soil and wetland h				
Woody Vine Stratum (Plot size: 30'	,			be present, unless	s disturbed or problen	natic.			
1				Hydrophytic					
2		Total Cover		Vegetation	/ v No				
		Total Cove		Present?	<u> </u>				
Remarks: (Include photo numbers here or on a separ Hydrophytic vegetation indicator present, Prevalence		laminant ene	oios ara EACI	M and EACH					
Hydrophytic vegetation indicator present, i revalence	Inuex > 5.0, a	Offiliant spec	Cles ale i Ac	W and r ACC					

Upland 042

**SOIL** Sampling Point: -bl-20200603

Profile Des	cription: (Describe	to the dept		ument t		tor or o	confirm the absen	ce of indicators		
(inches)	Color (moist)	%	Color (moist)	% / Catul	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
			Color (Illoist)	-70	туре	LOC	•			
0-6	10YR 4/3	100					Loamy/Clayey	SII	ty to sandy loa	<u>m</u>
6-16	10YR 4/3	80	10YR 5/4	20	<u>C</u>	M	Loamy/Clayey	s	andy clay loan	n
-	-									
1		<del></del>			. —		2.	<del></del>		
	Concentration, D=De	pletion, RM=I	Reduced Matrix, N	/IS=Mas	ked San	d Grains		tion: PL=Pore Li		•
	Indicators:		0		······································			ators for Proble	-	Solls":
Histosol			Sandy Gle	-				oast Prairie Red	, ,	
	pipedon (A2)		Sandy Red					on-Manganese N		
	istic (A3)		Stripped M	,	o)			ed Parent Materi	, ,	
	en Sulfide (A4)		Dark Surfa					ery Shallow Dark		)
	d Layers (A5)		Loamy Mu	•	٠,		<u> </u>	ther (Explain in F	Remarks)	
	uck (A10)	(4.4.4)	Loamy Gle							
	d Below Dark Surfac	e (A11)	Depleted N		-		3, ,,			
	ark Surface (A12)	Redox Dar		` '			ators of hydrophy	_		
	Mucky Mineral (S1)	Depleted [		, ,			etland hydrology		ent,	
_	ucky Peat or Peat (S		Redox Dep	oression	s (F8)		ur	nless disturbed o	r problematic.	
Restrictive	Layer (if observed	):								
Type:										
Depth (i	nches):						Hydric Soil Pres	sent?	Yes	No X
Remarks:	Remarks:									
	rm is revised from M	•	• • •					itors of Hydric Sc	oils in the Unite	d States,
	, 2018. (https://www.		v/Internet/FSE_D	OCUME	:NTS/nrc	s142p2_	_053171.pdf).			
No flydric sc	oil indicators present									
LIVERGLA	201									
HYDROLO										
Wetland Hy	drology Indicators	:								
	icators (minimum of	one is require						ndary Indicators (		<u>/o required)</u>
	Water (A1)		Water-Stai		, ,			urface Soil Crack	` '	
<u> </u>	ater Table (A2)		Aquatic Fa	`	,			rainage Patterns	` '	
Saturati			True Aqua					ry-Season Wate		
	/larks (B1)		Hydrogen		-			rayfish Burrows		
	nt Deposits (B2)		Oxidized F			-		aturation Visible	_	ery (C9)
	posits (B3)		Presence					tunted or Stresse	` '	
	at or Crust (B4)		Recent Iro			lled Soil	` '	eomorphic Posit	, ,	
	posits (B5)	. (57)	Thin Muck				<u> </u>	AC-Neutral Test	(D5)	
	ion Visible on Aerial	0 , ,								
	y Vegetated Concav	e Surrace (Ba	8)Other (Exp	lain in F	(Remarks		1			
Field Obser										
		es			nches):					
Water Table		es			nches):					
Saturation F		es	No X	Depth (i	nches):		Wetland Hydro	ology Present?	Yes	No X
(includes capillary fringe)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Domarka:										
Remarks: Surface soil cracks present due to past farming activity, not evidence of hydrology action. No hydrology indicators present										
Juliace soil	orabito present due	to past laillii	ing activity, flot evi	401106 0	i riyarolo	gy aciio	No fiyarology life	acators present		

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 043

Site: Crooksville-North Newark 138 kV Transmission Line Rebuild Project Date: June 3, 2020

	ie-North Newark 138 KV Transmission L	ine Rebuild Project	Date: June 3, 2020
Wetland: w	r-bl-20200603-08ab		Rater: BL, SM
1 1 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) 10 to <25 acres (4 to <10.1ha) () 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) x 0.1 to <0.3 acres (0.04 to <0.12) <0.1 acres (0.04ha) (0 pts)	a) (5 pts) 4 pts) ots) (2pts)	
4 3 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one  WIDE. Buffers average 50m (1)  MEDIUM. Buffers average 25m  NARROW. Buffers average 10i  X VERY NARROW. Buffers average  2b. Intensity of surrounding land use (select of LOW. Old field (>10 years), shr  X MODERATELY HIGH. Residen  HIGH. Urban, industrial, open p	e, do not double check) 64ft) or more around wetlan 1 to <50m (82 to <164ft) aro 1 to <25m (32ft to <82ft) ar 1 age <10m (<32ft) around we 1 to er double check & avera 1 are forest, prairie, savannah, 1 ubland, young second grow 1 tial, fenced pasture, park, co	and perimeter (7) und wetland perimeter (4) round wetland perimeter (1) etland perimeter (0)  age) wildlife area, etc. (7) with forest. (5) conservation tillage, new fallow field. (3)
13 9 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  X Precipitation (1) Seasonal/Intermittent surface w. Perennial surface water (lake or  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  X <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. (select one or double check & average  None or none apparent (12) Recovered (7)  X Recovering (3) Recent or no recovery (1)	ater (3) stream) (5)  3d.	Connectivity. Score all that apply.  100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)  Duration inundation/saturation. (select one or double check & average) Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) x Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed ditch  point source (nonstormwater) dike  filling/grading tille  road bed/RR track weir  dredging stormwater input other- list
20 7 Subtotal Points	Metric 4. Habitat Alteration and De  4a. Substrate disturbance. Score one or dout None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	ble check and average.	Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)  Ices observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

Site: Crooksville-North Newark 138 kV Transmission Line F	Pobuil Dato:	June 3, 2020					
<b>Wetland:</b> w-bl-20200603-08ab	Rater:	BL, SM					
20 subtotal first page							
20 Metric 5. Special Wetlands. (max 10 p	ts.)						
Subtotal Points Check all that apply and score as indicated	,						
Bog (10 pts)							
Fen (10 pts)							
Old Growth Forest (10 pts)							
Mature forested wetland (5 pts)							
Lake Erie coastal/tributary wetlar	nd-unrestricted hydrol	ogy (10 pts)					
Lake Erie coastal/tributary wetlar	, ,	y (5 pts)					
Lake Plain Sand Prairies (Oak O	penings) (10 pts)						
Relict Wet Prairies (10 pts)	den et	und maio (40)					
Known occurrence state/federal t	=						
Significant migatory songbird/wat Category 1 Wetland. See Questi							
Lategory i Welland. See Questi	on i oi Qualitative Ra	aung. (-10 μω)					
24 Metric 6. Plant Communities, interspe	ersion, microton	ography. (max 20 pts.)					
Subtotal Points 6a. Wetland Vegetation Communities	, ======						
Score all present using 0 to 3 scale	Vegetatio	n Community Cover Scale					
Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area					
0 Emergent							
1 Shrub		Present and either comprises small part of wetland's vegetation and is					
Forest	1	of moderate quality, or comprises a significant part but is of low quality					
Mudflats	<u> </u>						
Open water		Present and either comprises significant part of wetland's vegetation					
Other (list)	2	and is of moderate quality or comprises a small part and is of high quality					
6b. Horizontal (plan view) interspersion		Present and comprises significant part, or more, of wetland's vegetation					
Select only one	3	and is of high quality					
High (5)							
Moderately high (4)	Narrative	Narrative Description of Vegetation Quality					
Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance					
Moderately low (2)		tolerant native species					
1 Low (1) None (0)		Native spp are dominant component of the vegetation, although					
Indie (d)	moderate	nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o					
6c. Coverage of invasive plants.		presence of rare threatened or endangered spp					
Refer to Table 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or					
Add or deduct points for coverage	hiak	disturbance tolerant native spp absent or virtually absent, and high spp					
Extensive >75 % cover (-5)	high	diversity and often, but not always, the presence of rare, threatened, or					
Moderate 25-75% cover (-3)		endangered spp					
Sparse 5-25% cover (-1)	B.B1.61 - 4	nd Onen Water Class Overlife					
Nearly Absent <5% cover (0)		nd Open Water Class Quality					
x Absent (1)	0	Absent <0.1 ha (0.2471 acres)  Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)					
	2	Low 0.1 ha to <1 ha (0.24/1 acres to 2.4/ acres)  Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)					
6d. Microtopography	3	High 4 ha (9.88 acres) or more					
Score all present using 0 to 3 scale		C (1. 2.2					
2 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale					
0 Coarse woody debris >15 cm (6"		Absent					
0 Standing dead > 25 cm (10") dbh	·	Present very small amounts or if more common of marginal quality					
0 Amphibian breeding pools							
	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					



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 043a

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 043a

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

AEP

Site Location:

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

**Project No.** 60616110

#### Wetland 43a

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing South



#### Wetland 043a

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 043a

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 043b

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 043b

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 043b

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 1

Facing South



#### Wetland 043b

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 1

Facing West





## PHOTOGRAPHIC RECORD

**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 043b

Date:

June 3, 2020

**Description:** 

PSS wetland

Category 1

Soil Pit



### Wetland 044

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lin	e Rebuild Proj	ect City/Cou	inty: Perry Co	unty	Sampling Date:	06/03/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-bl-20200603-09
Investigator(s): SM, BL		Section, T	- Γownship, Ran	ge: S 21 T 17N R 15\	N	
Landform (hillside, terrace, etc.): swale			Local relief (co	oncave, convex, none):	convex	
Slope (%): 10 Lat: 39.85325		Long:	-82.20025		Datum: WGS 84	
Soil Map Unit Name: MeC - Mentor silt loam, gravelly s	ubstratum,	8 to 15 percen	it slopes	NWI classit	fication: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time c	of year?	Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrologys		-		rcumstances" present?		lo
Are Vegetation, Soilx_, or Hydrologyr	naturally pro	blematic? (	(If needed, exp	lain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site ma			g point loc	ations, transects,	important fea	itures, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled Are	ea		
			n a Wetland?	Yes X	No	
Wetland Hydrology Present? Yes X No	<u> </u>					
Remarks:						
Sampling point w-bl-20200603-09 point in to PEM We due to farming and sedimentation. Boundary delineate						sturbed soils
VEGETATION – Use scientific names of plan	nts.					
·	Absolute	Dominant	Indicator			
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wo		
1				Number of Dominant Are OBL, FACW, or F	•	2 (A)
3.						(^)
4.				Total Number of Dom Across All Strata:	inant Species	2 (B)
5.				Percent of Dominant	—— Species That	
		=Total Cover		Are OBL, FACW, or F	•	00.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )	,					
1				Prevalence Index wo	orksheet:	
2.				Total % Cover of	f: Multip	ly by:
3				· —	5 x 1 =	35
4				FACW species 5		102
5				· · · · ·	x 3 =	0
		=Total Cover		· —	0 x 4 =	40
Herb Stratum (Plot size: 5' )				UPL species 0		0
1. Agrostis gigantea	40	Yes	FACW			177 (B)
2. Carex lupulina	20	Yes	OBL	Prevalence Index	= B/A = <u>1.8</u>	34
3. Poa compressa	10	No No	FACU			
4. Scirpus cyperinus	10	No No	OBL	Hydrophytic Vegeta		
5. Calamagrostis canadensis	5	No No	OBL		Hydrophytic Vege	etation
6. Solidago gigantea	5	No No	FACW	X 2 - Dominance Te		
7. Agrimonia parviflora	3	No No	FACW	X 3 - Prevalence Inc		
8. <u>Verbesina alternifolia</u>	3	<u>No</u>	<u>FACW</u>		Adaptations <sup>1</sup> (Pro	
9					ophytic Vegetation	*
10	96	=Total Cover		<del></del>	. , .	` ' '
Woody Vine Stratum (Plot size: 30' )		- I Ulai Oovo.		<sup>1</sup> Indicators of hydric s be present, unless dis		
1. (Plot size)			F	·	turbed of problem	alic.
2.				Hydrophytic		
		=Total Cover		Vegetation Present? Yes	X No	
Developed (Include the template horse or on a const		1016. 0		11000		<del>_</del>
Remarks: (Include photo numbers here or on a separ Hydrophytic vegetation indicator present as dominance	,	∕ dominant sr	necies are FAC	'M' and ORI		
	0 1001 00	J, GOIIII.G F	700,00 4.5	, vv ana OBE.		

Wetland 044

SOIL Sampling Point: bl-20200603-

	• •	to the dep				tor or c	onfirm the absence of	of indicators.)	
Depth	Matrix			x Featur					
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-4	10YR 4/2	95	10YR 4/4	5	С	PL	Loamy/Clayey		
4-16	10YR 4/1	90	10YR 4/6	10	С	PL	Loamy/Clayey	distinct redox concentrations	
	-								
	·							_	
1 <sub>Type: C=C</sub>	Concentration, D=Dep	otion PM-	Poducod Matrix I		kod Sand		<sup>2</sup> l ocation	: PL=Pore Lining, M=Matrix.	
	I Indicators:	elion, Kivi-	Reduced Matrix, I	vio-ivias	keu Sand	Gianis		rs for Problematic Hydric Soils <sup>3</sup> :	
Histoso			Sandy Gle	ved Mat	rix (S4)			t Prairie Redox (A16)	
Histic E	Sandy Re	-				Manganese Masses (F12)			
	listic (A3)		Stripped M					Parent Material (F21)	
	en Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)	
	d Layers (A5)		Loamy Mu		eral (F1)			r (Explain in Remarks)	
2 cm M	uck (A10)		Loamy Gle	eyed Mat	rix (F2)				
Deplete	ed Below Dark Surface	(A11)	X Depleted I	Matrix (F	3)				
Thick D	ark Surface (A12)	Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation and		
Sandy I	Mucky Mineral (S1)	Depleted [	Dark Sur	face (F7)		wetla	nd hydrology must be present,		
5 cm M	ucky Peat or Peat (S3	Redox De	pression	s (F8)		unles	unless disturbed or problematic.		
Restrictive	Layer (if observed):								
Type:									
Depth (	inches):						Hydric Soil Present	? Yes No	
Remarks:									
								s of Hydric Soils in the United States,	
	, 2018. (https://www.n						<sub>-</sub> 053171.pdf). x concentrations in por	ro lininge	
Tiyunc son i	ndicator present as to	w Gillollia/i	iigii valde iliatiix v	vitii requ	irea aistii	ict redo.	x concentrations in por	e iiiiigs.	
HYDROLO	nev								
-	ydrology Indicators:								
_	icators (minimum of o	ne is requii			(DO)			ry Indicators (minimum of two required)	
	Water (A1)		Water-Sta					ce Soil Cracks (B6)	
l — _ ~	ater Table (A2)		Aquatic Fa		•			age Patterns (B10)	
	ion (A3) ⁄/arks (B1)		True Aqua Hydrogen					Season Water Table (C2) rish Burrows (C8)	
	ent Deposits (B2)		X Oxidized F					ration Visible on Aerial Imagery (C9)	
	posits (B3)		Presence			_		ed or Stressed Plants (D1)	
	at or Crust (B4)		Recent Iro		,	,		norphic Position (D2)	
	posits (B5)		Thin Muck				· · · —	Neutral Test (D5)	
	ion Visible on Aerial Ir	nagery (B7						,	
	y Vegetated Concave			olain in R	Remarks)				
Field Obse	rvations:								
Surface Wa	iter Present? Ye	s	No X	Depth (i	nches):	0			
Water Table	e Present? Ye	s	No X	Depth (i	nches):				
Saturation F	Present? Ye	s	No X	Depth (i	nches):		Wetland Hydrolog	gy Present? Yes X No No	
,	apillary fringe)								
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	l photos	, previous	s inspec	tions), if available:		
Domestics									
Remarks: Multiple prir	mary and secondary h	vdrology in	dicators present	Primary s	source of	hvdrolo	gy is concentration of	precipitation and surface runoff in	
	•		•	-		-	••	am that flows northwest to Turkey Run	
-	orth to Jonathan Cree		-	_		-		•	

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission	Line Rebuild Proje	ect City/Cour	nty: Perry C	County	Sampling Date:	06/03/2020	
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-bl-20200603-09	
Investigator(s): SM, BL		_Section, T	ownship, Ra	inge: S 21 T 17N R 15	W		
Landform (hillside, terrace, etc.): hillslope		<u> </u>	Local relief (d	concave, convex, none):	convex		
Slope (%): 12 Lat: 39.85334		Long: -	82.20030		Datum: WGS 84		
Soil Map Unit Name: MeC - Mentor silt loam, gravelly	y substratum, 8			NWI class			
Are climatic / hydrologic conditions on the site typical		•	Yes x				
Are Vegetation , Soil X , or Hydrology		•		Circumstances" present?		)	
Are Vegetation , Soil , or Hydrology	<del></del>			ιρlain any answers in Re			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X	No	Is the	Sampled A	rea			
	No X		n a Wetland		No X		
	No X						
Remarks:	_ <del></del>						
Sample point Upland 043 is point out for Wetland 04 farming. Not a wetland point as hydric soil and hydr			est of wetland	d boundary in farm field.	Soils significantly di	sturbed by	
		ot met.					
<b>VEGETATION</b> – Use scientific names of p	Absolute	Dominant	Indicator	T			
<u>Tree Stratum</u> (Plot size: 30' )	Absolute % Cover	Species?	Status	Dominance Test wo	orksheet:		
1.				Number of Dominant			
2.				Are OBL, FACW, or I	•	1 (A)	
3.				Total Number of Don	ninant Species		
4.				Across All Strata:		2 (B)	
5				Percent of Dominant	•	· · · · · · · · · · · · · · · · · · ·	
C. I. (Chart Otation / Diet eige. 15)	, <del></del>	=Total Cover		Are OBL, FACW, or I	FAC: 50	.0% (A/B)	
Sapling/Shrub Stratum (Plot size: 15'	_)			Prevalence Index w	-l-abaas		
1. 2.				Total % Cover of		hv:	
2						0	
4.						50	
5.				·		54	
	:	=Total Cover		-	20 x 4 =	30	
Herb Stratum (Plot size: 5' )				UPL species	0 x 5 =	0	
1. Agrostis gigantea	20	Yes	FACW	Column Totals: 6	63 (A) 1	84 (B)	
2. Stellaria media	15	Yes	FACU	Prevalence Index	= B/A = 2.92		
3. Festuca rubra		No	FAC				
4. Poa pratensis	_ 5	No No	FAC	Hydrophytic Vegeta			
5. Packera glabella  Ambrosis ortomisifolis		No No	FACU		r Hydrophytic Vegeta	ation	
Ambrosia artemisiifolia     Vernonia gigantea		No No	FACU FAC	2 - Dominance T 3 - Prevalence Ir			
8		INO	FAC		idex is ≤3.0 I Adaptations¹ (Provi	de eunnortina	
9.					ks or on a separate		
10.					rophytic Vegetation <sup>1</sup>	•	
	63	=Total Cover		<sup>1</sup> Indicators of hydric s			
Woody Vine Stratum (Plot size: 30'	)			be present, unless di			
1.				Hydrophytic			
2.				Vegetation			
	<u>=</u>	=Total Cover		Present? Yes	XNo	<u> </u>	
Remarks: (Include photo numbers here or on a sep							
Hydrophytic vegetation indicator present as prevale	nce index < 3.0	), dominant sp	pecies are FA	ACW and FACU			
4						,	

Upland 043

SOIL Sampling Point: <u>-bl-20200603</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-8	10YR 4/2	100	_				Loamy/Clay	vey	loam	
8-16	10YR 4/3	90	10YR 5/6	10	C	M	Loamy/Clay	rey	sandy clay loam	
			_							
							-			
			_							
1	· —						2.			
	Concentration, D=Depl	etion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	Grains		cation: PL=Pore L		
Hydric Soil Histosol			Sandy Gle	wod Mat	riv (S1)		inc	Coast Prairie Red	ematic Hydric Soils <sup>3</sup> :	
	pipedon (A2)		Sandy Re	-	IX (34)			_ Coast Frame Red   Iron-Manganese		
	istic (A3)		Stripped N		;)			Red Parent Mate		
	en Sulfide (A4)		Dark Surfa	•	,,			Very Shallow Dar	• ,	
	d Layers (A5)		Loamy Mu		eral (F1)			Other (Explain in	, ,	
	uck (A10)		Loamy Gle	-					· tomano,	
	d Below Dark Surface	(A11)	Depleted I	-						
	ark Surface (A12)	,	Redox Da				<sup>3</sup> Inc	dicators of hydroph	ytic vegetation and	
Sandy N	Mucky Mineral (S1)		Depleted I	Dark Surf	face (F7)			wetland hydrology	y must be present,	
5 cm Mu	ucky Peat or Peat (S3	)	Redox De	pression	s (F8)			unless disturbed	or problematic.	
Restrictive	Layer (if observed):									
Type:	,									
Depth (i	nches):						Hydric Soil P	resent?	Yes No X	
Remarks:	<u> </u>									
	rm is revised from Mic	lwest Regio	onal Supplement \	Version 2	.0 to incl	ude the	NRCS Field Ind	licators of Hydric S	oils in the United States,	
Version 8.2,	2018. (https://www.n	rcs.usda.go	ov/Internet/FSE_D	OCUME	NTS/nrcs	142p2_	_053171.pdf).	•		
No hydric so	oil indicators present,	ow chroma	/high value soils \	without re	equired re	edox cor	ncentrations in p	ore linings.		
HYDROLO	OGY									
Wetland Hy	drology Indicators:									
	cators (minimum of o	ne is requir	ed; check all that	apply)			Se	condary Indicators	(minimum of two required)	
Surface	Water (A1)	-	Water-Sta	ined Lea	ves (B9)		x	Surface Soil Crac	ks (B6)	
High Wa	ater Table (A2)		Aquatic Fa	auna (B1	3)		Drainage Patterns (B10)			
Saturati	on (A3)		True Aqua	itic Plant	s (B14)			Dry-Season Wate	r Table (C2)	
Water M	larks (B1)		Hydrogen	Sulfide C	Odor (C1)			Crayfish Burrows	(C8)	
Sedime	nt Deposits (B2)		Oxidized F	Rhizosph	eres on L	iving Ro	oots (C3)	_Saturation Visible	on Aerial Imagery (C9)	
Drift De	posits (B3)		Presence		,	,		Stunted or Stress	ed Plants (D1)	
	at or Crust (B4)		Recent Iro			led Soils	s (C6)	Geomorphic Posi		
	posits (B5)		Thin Muck		` '			_FAC-Neutral Test	(D5)	
	on Visible on Aerial In				` '					
	y Vegetated Concave	Surface (B	8) Other (Exp	olain in R	emarks)					
Field Obser										
	ter Present? Yes		No X		nches):					
Water Table		s			nches): _		M/-41		. V N- V	
Saturation F		<u> </u>	No X	Deptn (II	nches):		wetland Hy	drology Present?	Yes No X	
	pillary fringe)	gallac ma	nitoring well serie	l nhotos	provious	inenaa	tions) if availab	lo:		
Describe Re	ecorded Data (stream	yauge, mo	mornig well, aeria	ıı priotos,	, previous	ınspec	uoris), ii avallab	IE.		
Remarks:										
	lary indicator present.	Surface so	il cracks present	due to pa	ıst farmin	g activit	ïy.			
	•		•	•		-	-			

ORAM v. 5.0 Field Form Quantitative Rating Wetland 044

	ville-North Newark 138 kV Transmission Line Rebuild Project	<b>Date:</b> June 3, 2020			
Wetland:	w-bl-20200603-09	Rater: BL, SM			
1 1 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts)  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) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)				
4 3 Subtotal Points	Metric 2. Upland buffers and surrounding land use. (ma  2a. Calculate average buffer width (select one, do not double check)  WIDE. Buffers average 50m (164ft) or more around wetlan  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetlan  x VERY NARROW. Buffers average <10m (<32ft) around wetlan	etland perimeter (7) c) around wetland perimeter (4) 2ft) around wetland perimeter (1)			
	2b. Intensity of surrounding land use (select one or double check & avera  VERY LOW. 2nd growth or older forest, prairie, savannah,  LOW. Old field (>10 years), shrubland, young second grow  MODERATELY HIGH. Residential, fenced pasture, park, or  HIGH. Urban, industrial, open pasture, row cropping, mining	wildlife area, etc. (7) rth forest. (5) onservation tillage, new fallow field. (3)			
11 7 Subtotal Points	High pH groundwater (5) Other groundwater (3)  x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)	Connectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  x Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)  Duration inundation/saturation.			
	3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  <0.4m (<15.7in) (1)	(select one or double check & average)  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  Seasonally inundated (2)  x Seasonally saturated in upper 30cm (12in) (1)			
	None or none apparent (12)  Recovered (7)  x Recovering (3)  Recent or no recovery (1)	Check all disturbances observed ditch			
18 7 Subtotal Points	Metric 4. Habitat Alteration and Development. (max 20  4a. Substrate disturbance. Score one or double check and average.	pts.)			
	None or none apparent (4)	Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  x Recovering (3)			
	4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  x Poor to fair (2)  Poor (1)  Check all disturban  grazing  grazing  clearcutting  selective cutting  woody debris removal  toxic pollutants	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging			

DRAM v. 5.0 Field Form Quantitative Rating Wetland 044

Ordani V. S.O Fleid Form Quanti	<u> </u>	-	TTO CLATTA O T T
	-North Newark 138 kV Transmission Line Rebui		June 3, 2020
Wetland: w-b	ol-20200603-09	Rater:	BL, SM
18 subtotal first p	age		
18 0	Metric 5. Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all that apply and score as indicated		
	Bog (10 pts)		
	Fen (10 pts)		
	Old Growth Forest (10 pts)		
	Mature forested wetland (5 pts)		
	Lake Erie coastal/tributary wetland-unre	stricted hydro	logy (10 pts)
	Lake Erie coastal/tributary wetland-restr	ricted hydrolog	gy (5 pts)
	Lake Plain Sand Prairies (Oak Opening	s) (10 pts)	
	Relict Wet Prairies (10 pts)		
	Known occurrence state/federal threate	ned or endanç	gered species (10)
	Significant migatory songbird/waterfowl		
	Category 1 Wetland. See Question 1 o	f Qualitative R	ating. (-10 pts)
00	Matuia C. Blant Communities interesponden		announts (may 20 mtg.)
22 4	Metric 6. Plant Communities, interspersion	i, microtop	lography. (max 20 pts.)
Subtotal Points	6a. Wetland Vegetation Communities Score all present using 0 to 3 scale	Voqotatio	on Community Cover Scale
	Aquatic bed	vegetatio	Community Cover Scale
	1 Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	Shrub		
	Forest	1	Present and either comprises small part of wetland's vegetation and is
	Mudflats		of moderate quality, or comprises a significant part but is of low quality
	Open water		Present and either comprises significant part of wetland's vegetation
	Other (list)	2	and is of moderate quality or comprises a small part and is of high
	<u>—</u>		quality
	6b. Horizontal (plan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation
	Select only one		and is of high quality
	High (5)	Morrotivo	Description of Variation Quality
	Moderately high (4)  Moderate (3)	Narrative	Description of Vegetation Quality
	Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Low (1)		
	x None (0)		Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present,
		moderate	and species diversity moderate to moderately high, but generally w/o
	6c. Coverage of invasive plants.		presence of rare threatened or endangered spp
	Refer to Table 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or
	Add or deduct points for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp
	Extensive >75 % cover (-5)	ing.	diversity and often, but not always, the presence of rare, threatened, or
	Moderate 25-75% cover (-3)		endangered spp
	Sparse 5-25% cover (-1)	Mudflete	nd Onen Water Class Ovelity
	Nearly Absent <5% cover (0)		nd Open Water Class Quality
	X Absent (1)	0	Absent <0.1 ha (0.2471 acres)  Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more
	Score all present using 0 to 3 scale		ing The (clos delect) of more
	2 Vegetated hummocks/tussocks	Microtop	ography Cover Scale
	0 Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh		Drecent year email emounts or if more account of securing the
	0 Amphibian breeding pools	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 and of highest quality
			g. sater amounts and or nighton quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 044

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 044

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 044

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing South



#### Wetland 044

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 044

Date:

June 3, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



### Wetland 045

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line F	Rebuild Proje	ct City/Cour	nty: Perry Cou	nty	Sampling Date:	06/04/2020		
Applicant/Owner: AEP				State: OH	Sampling Point:	w-bl-20200604-01		
Investigator(s): SM, BL		Section, T	ownship, Rang	e: S 21 T 17N R 15\	V			
Landform (hillside, terrace, etc.): Swale  Local relief (concave, convex, none): concave								
Slope (%): 5 Lat: 39.85453		Lona: -8	82.20123	, , , , , , , , , , , , , , , , , , ,	Datum: NAD 83			
Soil Map Unit Name: MeC - Mentor silt loam, gravelly sub	ostratum. 8							
Are climatic / hydrologic conditions on the site typical for t			•	No (If no, exp				
Are Vegetation , Soil , or Hydrology sig		-		cumstances" present?		<b>,</b>		
						<b></b>		
Are Vegetation, Soilx, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes X No			Sampled Area					
Hydric Soil Present? Yes X No No		withir	n a Wetland?	Yes X	No			
Wetland Hydrology Present? Yes X No								
Remarks: Sampling point in for PEM Wetland 045. Wetland is pote	ntially isola	atad lacatad i	in low ewalo as	NIMI manned emerge	nt watland axtands	north		
outside study area almost to road. Soils possibly probler	,	,		invvi mapped emerge	ni welland, extends	TIOTUI		
<b>VEGETATION</b> – Use scientific names of plant	S. Absolute	Dominant	Indicator					
	% Cover	Species?	Status	Dominance Test wo	rksheet:			
1.				Number of Dominant	Species That			
2.				Are OBL, FACW, or F	•	6 (A)		
3.				Total Number of Dom	inant Species			
4				Across All Strata:		6 (B)		
5				Percent of Dominant	•			
_	=	Total Cover		Are OBL, FACW, or F	AC: 10	0.0% (A/B)		
Sapling/Shrub Stratum (Plot size: 15')								
1. Sambucus nigra	2	No	<u>FAC</u>	Prevalence Index wo				
2				Total % Cover of		_		
3				OBL species 3 FACW species 6		33 122		
5.				FACW species 6 FAC species 2		6		
	2 =	Total Cover		FACU species 0		0		
Herb Stratum (Plot size: 5' )		10141 00101		UPL species (		0		
1. Carex cristatella	15	Yes		Column Totals: 9		l61 (B)		
2. Scirpus atrovirens	15	Yes	OBL	Prevalence Index				
3. Onoclea sensibilis	10	Yes	FACW					
4. Agrostis gigantea	15	Yes	FACW	Hydrophytic Vegetat	tion Indicators:			
5. <u>Leersia virginica</u>	10	Yes	FACW	X 1 - Rapid Test for	Hydrophytic Veget	ation		
6. Persicaria sagittata	10	Yes	OBL	X 2 - Dominance Te	est is >50%			
7. Eupatorium perfoliatum	5	No	OBL_	X 3 - Prevalence Inc				
8. Phalaris arundinacea	5	No	FACW		Adaptations <sup>1</sup> (Prov			
9. Poa palustris	5	<u>No</u>	FACW		s or on a separate	,		
10. Juncus effusus	3	No Total Cavar	OBL		ophytic Vegetation <sup>1</sup>			
Woody Vino Stratum (Plat size: 20)	94 =	Total Cover		<sup>1</sup> Indicators of hydric s be present, unless dis				
Woody Vine Stratum (Plot size: 30' ) 1.			-		turbed of problema	uG.		
2.				Hydrophytic				
<del>-</del>	=	Total Cover		Vegetation Present? Yes	X No			
Remarks: (Include photo numbers here or on a separate						_		
Hydrophytic vegetation indicator present as rapid test, do	,	ecies are OB	L and FACW.					

Sampling Point: w-bl-20200604-01

#### **VEGETATION Continued** – Use scientific names of plants.

Absolute Dominant Indicator % Cover Species? Tree Stratum Status **Definitions of Vegetation Strata:** 6. Tree - Woody plants 3 in. (7.6 cm) or more in diameter 7. at breast height (DBH), regardless of height. 8. Sapling/Shrub - Woody plants less than 3 in. DBH 9. and greater than 3.28 ft (1 m) tall. 10. \_\_\_\_\_\_ 11. \_\_\_\_\_\_ Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody 12. plants less than 3.28 ft tall. Woody Vine - All woody vines greater than 3.28 ft in =Total Cover height. Sapling/Shrub Stratum 7. 8. 9. 10.\_\_\_\_ 11. \_\_\_\_\_\_ 2 =Total Cover Herb Stratum 11. Solidago gigantea 14. 94 =Total Cover Woody Vine Stratum 3. 5. 6. \_\_=Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: bl-20200604-

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix			x Featur						
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-6	10YR 4/1	90	10YR 3/3	10	С	PL	Loamy/Clayey	distinct redox concentrations		
6-16	2.5Y 5/1	90	10YR 4/6	10	С	PL	Loamy/Clayey	prominent redox concentrations		
	-		_							
	·									
1 <sub>Type: C=C</sub>	Concentration, D=Dep	otion PM-	Poducod Matrix I		kod Sand		<sup>2</sup> l ocation	: PL=Pore Lining, M=Matrix.		
	I Indicators:	etion, ixivi-	-Neduced Matrix, I	VIO-IVIAS	Keu Sand	Giailis		's for Problematic Hydric Soils <sup>3</sup> :		
Histoso			Sandy Gle	eved Mat	rix (S4)			t Prairie Redox (A16)		
	pipedon (A2)		Sandy Re	-				Manganese Masses (F12)		
	listic (A3)		Stripped N					Parent Material (F21)		
	en Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)		
	d Layers (A5)		Loamy Mu		eral (F1)			r (Explain in Remarks)		
2 cm M	uck (A10)		Loamy Gle	eyed Mat	rix (F2)					
Deplete	ed Below Dark Surface	(A11)	X Depleted I	Matrix (F	3)					
Thick D	ark Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation and		
Sandy I	Mucky Mineral (S1)		Depleted I	Dark Sur	face (F7)		wetla	nd hydrology must be present,		
5 cm M	ucky Peat or Peat (S3	)	Redox De	pression	s (F8)		unless disturbed or problematic.			
Restrictive	Layer (if observed):									
Type:	-									
Depth (	inches):						Hydric Soil Present	t? Yes X No		
Remarks:										
								s of Hydric Soils in the United States,		
	, 2018. (https://www.n							noro liningo		
Hydric Soil I	ndicators present as i	JW CHIOHIA	migri value deplet	eu main	wiiii ieq	ulleu le	dox concentrations in	pore illings.		
LIVERGLA	201									
HYDROL	OGY									
-	ydrology Indicators:									
-	icators (minimum of o	ne is requir						ry Indicators (minimum of two required)		
	Water (A1)		Water-Sta				Surface Soil Cracks (B6)			
	ater Table (A2)		Aquatic Fa		•			age Patterns (B10)		
	ion (A3) ⁄/arks (B1)		True Aqua Hydrogen					Season Water Table (C2) fish Burrows (C8)		
	ent Deposits (B2)		X Oxidized F		, ,			ration Visible on Aerial Imagery (C9)		
	posits (B3)		Presence			-		ed or Stressed Plants (D1)		
	at or Crust (B4)		Recent Iro					norphic Position (D2)		
	posits (B5)		Thin Muck					Neutral Test (D5)		
	ion Visible on Aerial Ir	nagery (B7			. ,			( - /		
	y Vegetated Concave				` '					
Field Obse	rvations:									
Surface Wa	iter Present? Ye	S	No X	Depth (i	nches):					
Water Table			No X	Depth (i	′ -					
Saturation F	Present? Ye	s	No X	Depth (i	_		Wetland Hydrolog	gy Present? Yes X No		
(includes ca	apillary fringe)		<del></del>		_					
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	al photos	, previous	sinspec	tions), if available:			
Remarks:	many and accordent	udrologu !-	diantara present	Drimana	ource of	bydral-	av ja aanaantratiar -f	procipitation and ourface maneff in		
	•		•	-		-		precipitation and surface runoff in un that flows north to Jonathan Creek		
-	ast to Moxahala Cree									

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line	e Rebuild Proje	ect City/Cou	nty: Perry C	ounty	Sampling Date:	06/04/2020	
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-bl-20200604-01	
Investigator(s): SM, BL		Section, T	Township, Ra	nge: S 21 T 17N R 15	w		
Landform (hillside, terrace, etc.): hillslope			Local relief (c	concave, convex, none):	convex		
Slope (%): 10 Lat: 39.85449			82.20107	,	Datum: NAD 83		
Soil Map Unit Name: MeC - Mentor silt loam, gravelly si	ubstratum, {			NWI classi			
Are climatic / hydrologic conditions on the site typical fo		•	Yes x	No (If no, ex			
Are Vegetation , Soil x , or Hydrology s		•		Circumstances" present?		,	
						<b>'</b> ——	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS - Attach site man showing sampling point locations, transacts, important features, etc.							
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
	<u> </u>		Sampled Ar				
	<u> </u>	withir	n a Wetland?	? Yes	No X		
Wetland Hydrology Present? Yes X No	<u>'</u>						
Remarks:	imataly 15' e	east of watlanc	d boundary II	nalana lacated within m	annad NIMI wetland	Cignificantly	
Upland 044 point out to Wetland 045. Located approximal disturbed soils from farming (located in fallow field). No						. Significarity	
		<b>F</b> ,		7,411,411	-		
<b>VEGETATION</b> – Use scientific names of plan	Absolute	Dominant	Indicator	г			
<u>Tree Stratum</u> (Plot size: 30' )	% Cover	Species?	Status	Dominance Test wo	rksheet:		
1				Number of Dominant	Species That		
2.				Are OBL, FACW, or F	FAC:	1 (A)	
3				Total Number of Dom	ninant Species		
4.				Across All Strata:		3 (B)	
5				Percent of Dominant	•		
	=	=Total Cover	ĺ	Are OBL, FACW, or F	FAC: 33	3.3% (A/B)	
Sapling/Shrub Stratum (Plot size: 15' )							
1 2.				Prevalence Index wo		•	
				Total % Cover of	$\frac{\text{f:}}{0} \frac{\text{Multiply}}{\text{x 1 =}}$	0 by:	
				· —		94	
4 5.				· -	0 x3=	0	
J		=Total Cover		-		232	
Herb Stratum (Plot size: 5' )		10.0.			0 x5=	0	
1. Packera glabella	30	Yes	FACW			326 (B)	
2. Stellaria media	15	Yes	FACU	Prevalence Index			
3. Veronica arvensis	15	Yes	FACU				
4. Agrostis gigantea	10	No	FACW	Hydrophytic Vegeta	tion Indicators:		
5. Poa compressa	10	No	FACU		r Hydrophytic Veget	ation	
6. Bromus arvensis	10	No	FACU	2 - Dominance Te			
7. Ambrosia artemisiifolia	5	No	FACU	3 - Prevalence In			
8. Alopecurus pratensis	5	No	FACW	· -	l Adaptations <sup>1</sup> (Provi		
9. Solidago altissima	3	No No	FACU		ks or on a separate	,	
10. Valerianella umbilicata	2	No Total Cavar	FACW		rophytic Vegetation <sup>1</sup>		
Manada Vina Stratum (Diat ciza: 30' )	105 =	=Total Cover		<sup>1</sup> Indicators of hydric s			
Woody Vine Stratum (Plot size: 30' ) 1.				be present, unless dis	sturbed or problema	tic.	
2.				Hydrophytic			
		=Total Cover		Vegetation Present? Yes	No X		
Describe. (Include whate numbers here or on a congr		-10101 0010.		11000111			
Remarks: (Include photo numbers here or on a separa No hydrophytic vegetation indicators present, dominan	,	1% prevalence	e index > 3.0.	Dominant species are f	FACW and FACU. V	/egetation	
distinctly different from adjacent wetland vegetation.	100 1001	70, prova	o much	Dominant opecies at a .	now and into.	ogoldaoi.	

US Army Corps of Engineers

Upland 044

SOIL Sampling Point: -bl-20200604

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix Redox Features										
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-8	10YR 4/3	100					Sandy			
8-17	2.5Y 4/2	90	2.5Y 5/4	10	С	PL	Loamy/Clayey	Sandy Clay Loam		
-										
								_		
-										
<u> </u>										
	Concentration, D=Depl	etion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	l Grains		tion: PL=Pore Lining, M=Matrix.		
_	Indicators:							ators for Problematic Hydric Soils <sup>3</sup> :		
Histosol	· ·		Sandy Gle	-				oast Prairie Redox (A16)		
	pipedon (A2)		Sandy Re					on-Manganese Masses (F12)		
	istic (A3)		Stripped N	•	3)			ed Parent Material (F21)		
	en Sulfide (A4)		Dark Surfa					ery Shallow Dark Surface (F22)		
	d Layers (A5)		Loamy Mu	-			<u> </u>	other (Explain in Remarks)		
	uck (A10)	(* 4 4)	Loamy Gle	-						
	d Below Dark Surface	(A11)	X Depleted I				3			
	ark Surface (A12)		Redox Da		` '			ators of hydrophytic vegetation and		
	Mucky Mineral (S1)	`	Depleted I		` '			retland hydrology must be present,		
	ucky Peat or Peat (S3	)	Redox De	pression	s (F8)		u	nless disturbed or problematic.		
	Layer (if observed):									
Type:			_							
Depth (i	nches):		_				Hydric Soil Pres	sent? Yes X No X		
Remarks:										
								ators of Hydric Soils in the United States,		
	2018. (https://www.n ndicator present as lo							in poro linings		
Tiyunc son n	indicator present as to	w CiliOilla/ii	igit value deplete	u mamx	with requ	iieu ieu	ox concentrations	in pore inings.		
LIVERGLA	201									
HYDROLO										
	drology Indicators:									
	cators (minimum of o	<u>ne is requir</u>						ndary Indicators (minimum of two required)		
	Water (A1)		Water-Sta		, ,		Surface Soil Cracks (B6)			
	ater Table (A2)		Aquatic Fa	•	,		Drainage Patterns (B10)			
Saturati			True Aqua					ry-Season Water Table (C2)		
	farks (B1)		Hydrogen					rayfish Burrows (C8)		
	nt Deposits (B2)		X Oxidized F	•		•	` ′	aturation Visible on Aerial Imagery (C9)		
	posits (B3)		Presence Recent Iro		,	,		tunted or Stressed Plants (D1) seomorphic Position (D2)		
	at or Crust (B4)					ieu Soii:		, ,		
	posits (B5)	oogony (P7)	Thin Muck		` '		r	AC-Neutral Test (D5)		
	on Visible on Aerial Ir y Vegetated Concave				` '					
		ouriace (D	Other (EX	Jiaiii iii iv	emarks)		F			
Field Obse			No. Y	Donth (i	nchos):					
Water Table		s	No X No X	Depth (i	nches):					
Saturation F			No X	Depth (i			Wetland Hydr	ology Present? Yes X No		
	pillary fringe)	·—	NO X	Deptii (ii			Wettand Hydr	ology i resent: res_X_ No		
	ecorded Data (stream	gauge moi	nitoring well aeria	al photos	. previous	inspec	tions), if available:			
		J		F5100	,	5500	,,			
Remarks:										
One primary	/ hydrology indicator p	resent. Pri	mary source of hy	drology i	s precipit	ation ar	nd proximity to Wet	land 045.		

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 045

Site. Crooksy	rille-North Newark 138 kV Transmission Line Rebuild Project	<b>Date:</b> June 4, 2020			
Wetland:	w-bl-20200604-01	Rater: BL, SM			
2 2 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts)  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)  x 0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)				
5 3 Subtotal Points	<ul> <li>&lt;0.1 acres (0.04ha) (0 pts)</li> <li>Metric 2. Upland buffers and surrounding land use. (n</li> <li>2a. Calculate average buffer width (select one, do not double check)</li> <li>WIDE. Buffers average 50m (164ft) or more around wetland MEDIUM. Buffers average 25m to &lt;50m (82 to &lt;164ft) around volume.</li> <li>X VERY NARROW. Buffers average 10m to &lt;25m (32ft to &lt;82ft)</li> <li>X VERY NARROW. Buffers average &lt;10m (&lt;32ft) around volume.</li> </ul>	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1)			
	2b. Intensity of surrounding land use (select one or double check & ave  VERY LOW. 2nd growth or older forest, prairie, savannal  LOW. Old field (>10 years), shrubland, young second gro  X MODERATELY HIGH. Residential, fenced pasture, park,  HIGH. Urban, industrial, open pasture, row cropping, mini	n, wildlife area, etc. (7) owth forest. (5) conservation tillage, new fallow field. (3)			
12 7 Subtotal Points	High pH groundwater (5) Other groundwater (3)  x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)	b. Connectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  x Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)  d. Duration inundation/saturation.			
	Recovered (7)	(select one or double check & average)  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  Seasonally inundated (2)  x Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed  ditch			
19 7 Subtotal Points	Metric 4. Habitat Alteration and Development. (max 2  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)	weir dredging stormwater input other- list  20 pts.)  C. Habitat alteration. Score one or double check and average.			
	X   Recovering (2)   Recent or no recovery (1)	None or none apparent (9)  Recovered (6)  X Recovering (3)  Recent or no recovery (1)  Inces observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging			

DRAM v. 5.0 Field Form Quantitative Rating Wetland 045

O'L O	,		ID - 1	t coop
	North Newark	138 kV Transmission Line Rebuil	Date:	June 4, 2020
Wetland: w-bl-	-20200604-01		Rater:	BL, SM
19 subtotal first page	ne			
oubtotal mot pay	90			
19 0	Metric 5 Sn	ecial Wetlands. (max 10 pts.)		
	•	` '		
Subtotal Points	Check all that app	ply and score as indicated		
		Bog (10 pts)		
		Fen (10 pts)		
		Old Growth Forest (10 pts)		
		Mature forested wetland (5 pts)		
		Lake Erie coastal/tributary wetland-unre	-	
		Lake Erie coastal/tributary wetland-restr	icted hydrolog	y (5 pts)
		Lake Plain Sand Prairies (Oak Openings	s) (10 pts)	
		Relict Wet Prairies (10 pts)		
		Known occurrence state/federal threater	ned or endang	ered species (10)
		Significant migatory songbird/waterfowl	habitat or usaç	ge (10 pts)
		Category 1 Wetland. See Question 1 of	Qualitative Ra	ating. (-10 pts)
	•	•		
21 2	Metric 6. Pla	nt Communities, interspersion	, microtop	ography. (max 20 pts.)
Subtotal Points	6a. Wetland Veg	netation Communities		
		using 0 to 3 scale	Vegetatio	n Community Cover Scale
	·	Aquatic bed		•
	1	Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	0	Shrub		
	-	Forest	1	Present and either comprises small part of wetland's vegetation and is
		Mudflats		of moderate quality, or comprises a significant part but is of low quality
		Open water	2	Present and either comprises significant part of wetland's vegetation
		Other (list)	2	and is of moderate quality or comprises a small part and is of high quality
		lan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation
	Select only one	1		and is of high quality
		High (5)	<b>N</b> 1	Book total and Marchael Andrea Andrea
		Moderately high (4)	Narrative	Description of Vegetation Quality
		Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance
		Moderately low (2)		tolerant native species
		Low (1)		Native spp are dominant component of the vegetation, although
	х	None (0)	moderate	nonnative and/or disturbance tolerant native spp can also be present,
			moderate	and species diversity moderate to moderately high, but generally w/o
	6c. Coverage of	invasive plants.		presence of rare threatened or endangered spp
		ORAM long form for list.		A predominance of native species, with nonnative spp and/or
	Add or deduct po	ints for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp
		Extensive >75 % cover (-5)	high	diversity and often, but not always, the presence of rare, threatened, or
		Moderate 25-75% cover (-3)		endangered spp
	х	Sparse 5-25% cover (-1)		
		Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
		Absent (1)	0	Absent <0.1 ha (0.2471 acres)
		. ,	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopogra	anhv	3	High 4 ha (9.88 acres) or more
		using 0 to 3 scale		g : (3.00 da.00) of 11.010
	2	Vegetated hummocks/tussocks	Microtono	ography Cover Scale
		· ·		Absent
	0	Coarse woody debris >15 cm (6")	0	Unacur
	0	Standing dead > 25 cm (10") dbh	1	Present very small amounts or if more common of marginal quality
	0	Amphibian breeding pools	-	December on death and and had a first to the
			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



**Client Name:** 

Site Location:

**Project No.** 60616110

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

Wetland 045

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 045

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 045

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 045

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 045

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



### Wetland 046

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line	e Rebuild Proje	ct City/Cou	nty: Perry Co	ounty Sampling Date: 06/04/2020				
Applicant/Owner: AEP				State: OH Sampling Point: w-bl-20200604-02				
Investigator(s): SM, BL		Section, T	ownship, Rar	nge: S 20 T 17N R 15W				
Landform (hillside, terrace, etc.): floodplain			Local relief (co	oncave, convex, none): flat				
Slope (%): 2 Lat: 39.85781		,	82.20495	Datum: NAD 83				
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent	slopes occ			NWI classification: N/A				
Are climatic / hydrologic conditions on the site typical fo		-	Yes x	No (If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrologys		•		ircumstances" present? Yes x No				
Are Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.)  SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
SUMMARY OF FINDINGS – Attach site ma	p showin	g samplin	g point loc	eations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled Ar	ea				
Hydric Soil Present? Yes X No		within	n a Wetland?	Yes X No				
Wetland Hydrology Present? Yes X No								
Remarks:		<del>-</del>						
Sampling point for PEM Wetland 046. Wetland located of Turkey Run's LDB due to prior dredging/stratening of				y Run (Stream 046). Wetland area appears to be a berm				
		Silicated Weti	and is open c	nace and continues ove outside the survey contact.				
<b>VEGETATION</b> – Use scientific names of plan	Absolute	Dominant	Indicator					
Tree Stratum (Plot size: 30' )	% Cover	Species?	Status	Dominance Test worksheet:				
1. Juglans nigra	5	Yes	FACU	Number of Dominant Species That				
2.				Are OBL, FACW, or FAC: 4 (A)				
3.				Total Number of Dominant Species				
4				Across All Strata: 8 (B)				
5				Percent of Dominant Species That				
	5	Total Cover		Are OBL, FACW, or FAC: 50.0% (A/B)				
Sapling/Shrub Stratum (Plot size: 15' )								
1. Sambucus nigra	2	Yes	FAC	Prevalence Index worksheet:				
Rubus occidentalis     Juglans nigra	2 2	Yes Yes	UPL FACU	Total % Cover of: Multiply by:  OBL species 0 x 1 = 0				
3. Juglans nigra 4.		168	FACU	OBL species 0 x 1 = 0 FACW species 65 x 2 = 130				
5.				FAC species 15 x 3 = 45				
<u> </u>	6 =	Total Cover		FACU species 50 x 4 = 200				
Herb Stratum (Plot size: 5' )				UPL species 7 x 5 = 35				
1. Valerianella umbilicata	20	Yes	FACW	Column Totals: 137 (A) 410 (B)				
2. Erigeron philadelphicus	20	Yes	FACW	Prevalence Index = B/A = 2.99				
3. Trifolium pratense	15	Yes	FACU					
4. Agrostis gigantea	15	Yes	FACW	Hydrophytic Vegetation Indicators:				
5. Cirsium arvense	10	No	FACU	1 - Rapid Test for Hydrophytic Vegetation				
6. Poa pratensis	10	<u>No</u>	FAC	2 - Dominance Test is >50%				
7. Daucus carota	5	<u>No</u>	<u>UPL</u>	X 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
8. Phalaris arundinacea	5	No	FACW	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)				
9. Melilotus officinalis	<u>5</u>	No No	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
10. Solidago altissima		No Total Cover	<u>FACU</u>					
Woody Vine Stratum (Plot size: 30' )	120	- Total Gover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
1.			-	·				
2.				Hydrophytic Vegetation				
		Total Cover		Present? Yes X No				
Remarks: (Include photo numbers here or on a separa	ate sheet.)							
Hydrophytic vegetation indicator present as prevalence	e index < 3.0	). Dominant s <sub>l</sub>	pecies are FA	CW, FAC, FACU and UPL.				

US Army Corps of Engineers

Sampling Point: w-bl-20200604-02

## **VEGETATION Continued** – Use scientific names of plants.

<u>Tree Stratum</u>	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata:
6				Tree Meady plants 2 in (7 Care) as security discretes
7.				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				at broadt height (BBH), regardless of height.
9.				Sapling/Shrub – Woody plants less than 3 in. DBH
10.				and greater than 3.28 ft (1 m) tall.
11.				<b>Herb</b> – All herbaceous (non-woody) plants, including
12.				herbaceous vines, regardless of size, and woody
13.				plants less than 3.28 ft tall.
	5	=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
Sapling/Shrub Stratum		•		height.
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
	6	=Total Cover		
Herb Stratum		•		
11. Packera aurea	5	No	FACW	
12. Bromus inermis	5	No	FACU	
13. Rumex crispus	3	No	FAC	
14. Lolium perenne	3	No	FACU	
15.				
16				
17				
18				
19				
20				
21				
22				
	126	=Total Cover		
Woody Vine Stratum				
3.				
4.				
5.				
6				
7				
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rate sheet.	)		
(		,		

Wetland 046

SOIL Sampling Point: bl-20200604-

	cription: (Describe	to the dept				tor or c	onfirm the absen	ce of indicators.)			
Depth	Matrix			x Featur							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-4	10YR 4/2	100	_				Loamy/Clayey	silty clay loam			
4-10	10YR 4/2	90	10YR 4/6	10	С	PL	Loamy/Clayey	silty clay loam and gravel present			
			_								
								_			
	· <u> </u>							_			
1- 0.0							2, ,				
	Concentration, D=Dep	etion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	Grains		ion: PL=Pore Lining, M=Matrix. tors for Problematic Hydric Soils <sup>3</sup> :			
_	Indicators:		Sandy Gla	wod Mat	riv (S1)			past Prairie Redox (A16)			
Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5)							on-Manganese Masses (F12)				
	istic (A3)		Stripped N		;)			ed Parent Material (F21)			
	en Sulfide (A4)		Dark Surfa	•	,,			ery Shallow Dark Surface (F22)			
	d Layers (A5)		Loamy Mu		eral (F1)			ther (Explain in Remarks)			
	uck (A10)		Loamy Gle	-				(_/piamimiritemanie)			
	d Below Dark Surface	(A11)	X Depleted I	-							
	ark Surface (A12)	,	Redox Da	-	-		<sup>3</sup> Indica	ators of hydrophytic vegetation and			
Sandy N	Mucky Mineral (S1)		Depleted I	Dark Sur	face (F7)		We	etland hydrology must be present,			
5 cm Mi	ucky Peat or Peat (S3	)	? Redox De	pression	s (F8)		ur	lless disturbed or problematic.			
Restrictive	Layer (if observed):										
Type:	. ,										
Depth (i	nches):						Hydric Soil Pres	ent? Yes X No			
Remarks:	<u> </u>					L					
This data fo	rm is revised from Mid	dwest Regi	onal Supplement \	Version 2	.0 to incl	ude the	NRCS Field Indica	tors of Hydric Soils in the United States,			
	2018. (https://www.n										
-	lug several soil pits in atrix with required red		-	-	er 10" be	low surf	ace. Hydric soil ind	icator present as low chroma/high value			
depieted in	atiix witii required redi	DX CONCENT	ations in pore iiiii	igs.							
HYDROL	DGY										
Wetland Hy	drology Indicators:										
Primary Ind	icators (minimum of o	ne is requir	ed; check all that	apply)			<u>Secon</u>	dary Indicators (minimum of two required)			
	Water (A1)		Water-Sta				Surface Soil Cracks (B6)				
	ater Table (A2)		Aquatic Fa				Drainage Patterns (B10)				
Saturati			True Aqua					y-Season Water Table (C2)			
	/larks (B1)		Hydrogen					rayfish Burrows (C8)			
	nt Deposits (B2)		X Oxidized F			•	` '	aturation Visible on Aerial Imagery (C9)			
	posits (B3)		Presence		,	,		unted or Stressed Plants (D1)			
	at or Crust (B4) posits (B5)		Recent Iro			iea Soii		eomorphic Position (D2)			
	ion Visible on Aerial Ir	nagery (R7	Thin Muck ) Gauge or				<u></u>	AC-Neutral Test (D5)			
	y Vegetated Concave	• • •			, ,						
Field Obse	,		Outer (EX	Jiaiii iii i	erriarko)		1				
	ter Present? Ye	s	No X	Depth (ii	nches).						
Water Table		s <u></u>			nches):						
la						ology Present? Yes X No					
	pillary fringe)			' '	′ –						
<b>—</b> `	ecorded Data (stream	gauge, mo	nitoring well, aeria	al photos,	previous	inspec	tions), if available:				
	<u> </u>			<u> </u>	·		·				
Remarks:											
	•	, ,,		•		•	0,	low from perennial Stream 046 and			
	on of precipitation in g a Creek that flows nor				rennai S	ueam I	urkey Kun mat 110W	s north to Jonathan Creek that flows east			

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lin	ne Rebuild Proj	ect City/Cou	unty: Perry C	ounty	Sampling Date:	06/04/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-bl-20200604-02
Investigator(s): SM, BL		Section,	Township, Ra	nge: S 20 T 17N R 15\	Ν	
Landform (hillside, terrace, etc.): toe slope			Local relief (c	concave, convex, none):	concave	
Slope (%): 10 Lat: 39.85792		Long:	-82.20501		Datum: NAD 83	
Soil Map Unit Name: DmF - Dekalb loam, 40 to 70 per	cent slopes,	very stony		NWI classif	fication: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time c	of year?	Yes x	No (If no, exp	plain in Remarks.)	
Are Vegetation, Soilx, or Hydrologys		-		Circumstances" present?		lo
Are Vegetation, Soil, or Hydrologyr	naturally pro	blematic?	(If needed, ex	plain any answers in Rei	marks.)	
SUMMARY OF FINDINGS – Attach site ma			•		•	tures, etc.
Hydrophytic Vegetation Present? Yes No	o	Is the	e Sampled Ar	rea		
Hydric Soil Present? Yes No	0 X		in a Wetland?		No X	
Wetland Hydrology Present? Yes No	0 <u>X</u>					
Remarks:		<del></del> -				
Upland 047 is point out to Wetland 046. Located appropriate mapped 100-year floodplain and toe of slope. Not a w					igher elevation, at	edge of
			a ontone			
<b>VEGETATION</b> – Use scientific names of pla	Absolute	Dominant	Indicator	Γ		
<u>Tree Stratum</u> (Plot size: 30' )	% Cover	Species?	Status	Dominance Test wor	rksheet:	
1.				Number of Dominant	Species That	
2.				Are OBL, FACW, or F	AC:	1 (A)
3.				Total Number of Dom	inant Species	,
4				Across All Strata:		4 (B)
5		-Total Cover		Percent of Dominant	•	DE 00/. (A/D)
Sapling/Shrub Stratum (Plot size: 15' )	`	=Total Cover		Are OBL, FACW, or F	AC:	25.0% (A/B)
1. Quercus muehlenbergii	) 10	Yes	FACU	Prevalence Index wo		
Rosa multiflora	10	Yes	FACU	Total % Cover of		v bv:
3. Rubus occidentalis	5	No	UPL	OBL species 5		5
4. Carya ovata	3	No	FACU	FACW species 6		126
5. Fraxinus americana	3	No	FACU		0 x 3 =	30
	31	=Total Cover		FACU species 4	8 x 4 =	192
Herb Stratum (Plot size: 5' )				UPL species 5	x 5 =	25
Valerianella umbilicata	40	Yes	FACW	Column Totals: 13	31 (A)	378 (B)
2. Bromus inermis	20	Yes	FACU	Prevalence Index	= B/A = 2.8	9
3. Solidago gigantea	15	No	FACW			
4. Poa pratensis	10	No	FAC	Hydrophytic Vegetat		
5. Galium asprellum	5	No	OBL		Hydrophytic Vege	tation
6. Verbesina alternifolia	5	No	FACW	2 - Dominance Te		
7. Elymus riparius	3	No	FACW	3 - Prevalence Inc		
8. Asclepias syriaca	2	No	FACU	· · ·	Adaptations¹ (Prov s or on a separate)	
9					·	,
10	100	-Total Cover	. <del></del> . !		ophytic Vegetation	
Woody Vine Stratum (Plot size: 30' )	100	=Total Cover		<sup>1</sup> Indicators of hydric so be present, unless dis		
1. (Plot size)	I .				sturbed or problem	alic.
2.				Hydrophytic		
		=Total Cover		Vegetation Present? Yes	X No	
Developed (Include that numbers here or on a const		-10101 0010.		110001111 1.55		
Remarks: (Include photo numbers here or on a separ Hydrophytic vegetation indicator present as Prevalence	,	∩ Dominant :	enecies are F/	∆CW and FACII		
Trydrophytto vogotation indicator p. 222.1. 22	o mack c.	0. Don	3pooleo a	10W and 17100.		

Upland 047

SOIL Sampling Point: -bl-20200604

Profile Desc	ription: (Describe t	o the depti	n needed to doc	ument th	ne indica	tor or o	confirm the absence	of indicators.)			
Depth	Matrix			x Featur							
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-7	10YR 4/2	100					Loamy/Clayey	Silty Clay Loan	<u>n</u>		
7-12	10YR 4/3	90	10YR 4/6	10	C	M	Loamy/Clayey	Silty Clay Loan	n		
							·				
			_								
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion RM=F	Reduced Matrix N	/S=Mas	ked Sand	Grains	2 l ocation	: PL=Pore Lining, M=Matrix	×		
Hydric Soil			touuoou maant, .					rs for Problematic Hydric			
Histosol	(A1)		Sandy Gle	yed Matı	rix (S4)		Coas	st Prairie Redox (A16)			
Histic Ep	ipedon (A2)		Sandy Red	dox (S5)			Iron-	Manganese Masses (F12)			
Black His	stic (A3)		Stripped M	latrix (S6	6)		Red	Parent Material (F21)			
Hydroge	n Sulfide (A4)		Dark Surfa	ice (S7)			Very	Shallow Dark Surface (F22	)		
	Layers (A5)		Loamy Mu				Othe	r (Explain in Remarks)			
2 cm Mu	` '		Loamy Gle								
	Below Dark Surface	(A11)	Depleted N				3, ,, ,				
	rk Surface (A12)		Redox Da		` '			rs of hydrophytic vegetation			
Sandy Mucky Mineral (S1)Depleted Dark Surface (F7) 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8)							wetland hydrology must be present, unless disturbed or problematic.				
		)	Nedox De	JI 65510113	5 (1-0)		unies	ss disturbed of problematic.			
	_ayer (if observed):										
Type: Depth (in	ichee).		_				Hydric Soil Presen	t? Yes	No X		
, ,			_				Tiyunc 3011 Fresen	165	NO		
Remarks:	m is revised from Mic	lwest Regio	nal Sunnlement \	Arsion 2	0 to incl	uda tha	NRCS Field Indicator	s of Hydric Soils in the Unite	nd States		
	2018. (https://www.n	•						3 of Frydric Golls III the Office	otates,		
Shovel refus	al at 12" depth due to	hard pack	gravel. No hydric	soil indi	cators pre	esent, lo	ow chroma/high value	matrix without required redo	X		
concentration	ns.										
HYDROLO	GY										
Wetland Hyd	drology Indicators:										
Primary India	cators (minimum of o	ne is require	ed; check all that a	apply)			<u>Seconda</u>	ry Indicators (minimum of tw	vo required)		
	Water (A1)		Water-Sta		` '			ace Soil Cracks (B6)			
	ter Table (A2)		Aquatic Fa	•	•		Drainage Patterns (B10)				
Saturatio			True Aqua		, ,			Season Water Table (C2)			
Water Ma	` '		Hydrogen					fish Burrows (C8)	(CO)		
	t Deposits (B2) osits (B3)		Oxidized F Presence	•		-		ration Visible on Aerial Imag ted or Stressed Plants (D1)	jery (C9)		
	t or Crust (B4)		Recent Iro					morphic Position (D2)			
	osits (B5)		Thin Muck			ica con	` ' —	-Neutral Test (D5)			
	on Visible on Aerial In	nagery (B7)									
	Vegetated Concave										
Field Observ	vations:										
Surface Water	er Present? Yes	3	No X	Depth (ii	nches):						
Water Table	Vater Table Present? Yes No X Depth (inches):										
Saturation Pr	resent? Yes	s	No X	Depth (ii	nches):		Wetland Hydrolo	gy Present? Yes	No X		
(includes cap	oillary fringe)										
Describe Red	corded Data (stream	gauge, mor	nitoring well, aeria	l photos	previous	sinspec	ctions), if available:				
Domonto											
Remarks:	ary hydrology indicato	or present									
Jilo Joodila	ary riyarology maidatt	prosont.									

Site: Crooksville	e-North Newark 138 kV Transmission Line Rebuild Project	<b>Date:</b> June 4, 2020
Wetland: w-	bl-20200604-02	Rater: BL, SM
1 1 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts)  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)  x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)	
5 4 Subtotal Points	Metric 2. Upland buffers and surrounding land use. (m  2a. Calculate average buffer width (select one, do not double check)  WIDE. Buffers average 50m (164ft) or more around wetla  MEDIUM. Buffers average 25m to <50m (82 to <164ft) an  NARROW. Buffers average 10m to <25m (32ft to <82ft) a  VERY NARROW. Buffers average <10m (<32ft) around w  2b. Intensity of surrounding land use (select one or double check & average   VERY LOW. 2nd growth or older forest, prairie, savannah  X LOW. Old field (>10 years), shrubland, young second grown of the second pasture, park, and the second pasture are second pasture.	and perimeter (7) ound wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)  rage) i, wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallow field. (3)
15 10 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)	b. Connectivity. Score all that apply.  x 100 year floodplain (1) x Between stream/lake and other human use (1) x Part of wetland/upland (e.g. forest), complex (1) x Part of riparian or upland corridor (1)  d. Duration inundation/saturation. (select one or double check & average) Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) x Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed ditch point source (nonstormwater) dike gilling/grading tile road bed/RR track weir dredging stormwater input other- list
22 7 Subtotal Points	Metric 4. Habitat Alteration and Development. (max 2  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)  Check all disturbated grazing Clearcutting Clearcutting Selective cutting Woody debris removes	c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  X Recovering (3)  Recent or no recovery (1)  Inces observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

22 subtotal this page

ORAM v. 5.0 Field Form Quantitati	ve Rating			
Site: Crooksville-N	orth Newark 138 kV Transmission Li	ne Rebuild <b>Da</b>	ite:	June 4, 2020
Wetland: w-bl-2	0200604-02	Ra	ater:	BL, SM
		<u> </u>		
22 subtotal first page				
22 <u>0</u>	Metric 5. Special Wetlands. (max 1	0 pts.)		
Subtotal Points	Check all that apply and score as indicated			
	Bog (10 pts)			
	Fen (10 pts)			
	Old Growth Forest (10 pts)			
	Mature forested wetland (5 p	,		
	Lake Erie coastal/tributary w	etland-unrestricted	d hydrolog	y (10 pts)
	Lake Erie coastal/tributary w			5 pts)
	Lake Plain Sand Prairies (O	ak Openings) (10	pts)	
	Relict Wet Prairies (10 pts)			
	Known occurrence state/fed		_	
	Significant migatory songbire  Category 1 Wetland. See C		-	
	Category I Wetland. See C	destion 1 of Quali	lative Natii	ig. (-10 pts)
24 2	Metric 6. Plant Communities, inter	enersion mic	rotonoo	uranhy (may 20 nts )
	a. Wetland Vegetation Communities	spersion, inic	lotopog	rupny. (max 20 pts.)
_	Score all present using 0 to 3 scale	Ve	getation	n Community Cover Scale
·	0 Aquatic bed			
	2 Emergent		0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	0 Shrub			
	0 Forest		1	Present and either comprises small part of wetland's vegetation and is
	0 Mudflats			of moderate quality, or comprises a significant part but is of low quality
	0 Open water			Present and either comprises significant part of wetland's vegetation
	Other (list)		2	and is of moderate quality or comprises a small part and is of high
	<del></del>			quality
<u>6</u>	b. Horizontal (plan view) interspersion		3	Present and comprises significant part, or more, of wetland's vegetation
\$	Select only one		ŭ	and is of high quality
	High (5)			
	Moderately high (4)	Na	rrative L	Description of Vegetation Quality
	Moderate (3)		low	Low spp diversity and/or predominance of nonnative or disturbance
	Moderately low (2)			tolerant native species
	Low (1)			Native spp are dominant component of the vegetation, although
	x None (0)	m	oderate	nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o
4	c. Coverage of invasive plants.			presence of rare threatened or endangered spp
	Refer to Table 1 ORAM long form for list. Add			A mandaminana of matica analisa with manatica and and/an
	r deduct points for coverage			A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp
	Extensive >75 % cover (-5)		nian	diversity and often, but not always, the presence of rare, threatened, or
	Moderate 25-75% cover (-3)	)		endangered spp
	x Sparse 5-25% cover (-1)		<u> </u>	
	Nearly Absent <5% cover (0	) Mu	ıdflat an	d Open Water Class Quality
	Absent (1)		0	Absent <0.1 ha (0.2471 acres)
	<del></del>		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
<u>.6</u>	d. Microtopography		3	High 4 ha (9.88 acres) or more
5	score all pr <u>esent</u> using 0 to 3 scale			
	1 Vegetated hummocks/tusso	cks Mic	crotopo	graphy Cover Scale
	0 Coarse woody debris >15 cr	` '	0	Absent
	0 Standing dead > 25 cm (10" 0 Amphibian breeding pools	) dbh	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 046

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 046

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 046

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 046

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 046

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



## Wetland 047

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line	e Rebuild Proje	ct City/Cou	nty: Perry C	ounty Sampling Date: 06/04/2020				
Applicant/Owner: AEP				State: OH Sampling Point: w-bi-20200604-05				
Investigator(s): SM, BL		Section, T	ownship, Ra	nge: S 20 T 17N R 15W				
Landform (hillside, terrace, etc.): toeslope			Local relief (c	concave, convex, none): concave				
Slope (%): 2 Lat: 39.85904		Long: -	82.20637	Datum: NAD 83				
Soil Map Unit Name: WmE - Westmoreland silt loam, 29	5 to 35 perce			NWI classification: N/A				
Are climatic / hydrologic conditions on the site typical fo	-	-	Yes x					
Are Vegetation , Soil , or Hydrology s		•		Circumstances" present? Yes x No				
Are Vegetation , Soil , or Hydrology n				plain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes X No		le the	Sampled A	703				
			n a Wetland?					
Wetland Hydrology Present? Yes X No		***************************************	a wonana	100 <u>X</u> 110 <u>—</u>				
Remarks:								
	race of interr	nittent Strean	n 047 from to	e of slope to overflow channel and swale. Wetland fully				
delineated.								
VEGETATION – Use scientific names of plan	nts.							
	Absolute	Dominant	Indicator					
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:				
1.				Number of Dominant Species That				
2.				Are OBL, FACW, or FAC: 3 (A)				
3.				Total Number of Dominant Species				
4				Across All Strata: 5 (B)				
5		Total Cover		Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)				
Sapling/Shrub Stratum (Plot size: 15' )		- Total Covel		Are OBE, I AGW, OF FAC.				
1. Acer negundo	5	Yes	FAC	Prevalence Index worksheet:				
2. Rosa multiflora	3	Yes	FACU	Total % Cover of: Multiply by:				
3. Lindera benzoin	2	No	FACW	OBL species 28 x 1 = 28				
4. Gleditsia triacanthos	2	No	FACU	FACW species 52 x 2 = 104				
5.				FAC species 10 x 3 = 30				
	12 =	Total Cover		FACU species 30 x 4 = 120				
Herb Stratum (Plot size: 5' )				UPL species0 x 5 =0				
Valerianella umbilicata	20	Yes	FACW	Column Totals: 120 (A) 282 (B)				
2. Poa palustris	20	Yes	FACW	Prevalence Index = B/A = 2.35				
3. Galium aparine	15	Yes	FACU					
4. Carex lurida	10	No No	OBL	Hydrophytic Vegetation Indicators:				
5. <u>Dichanthelium clandestinum</u>	10	No No	FACU	1 - Rapid Test for Hydrophytic Vegetation				
Juncus effusus     Equisetum hyemale	10	No No	OBL FACW	X 2 - Dominance Test is >50% X 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
8. Panicum virgatum	5	No	FAC	4 - Morphological Adaptations <sup>1</sup> (Provide supporting				
9. Boehmeria cylindrica	5	No	OBL	data in Remarks or on a separate sheet)				
10. Eupatorium perfoliatum	3	No	OBL	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
		Total Cover		¹Indicators of hydric soil and wetland hydrology must				
Woody Vine Stratum (Plot size: 30')				be present, unless disturbed or problematic.				
1.				Hydrophytic				
2.				Vegetation				
	=	Total Cover		Present? Yes X No				
Remarks: (Include photo numbers here or on a separa	ate sheet.)							
Hydrophytic vegetation indicator present as dominance	e test > 50%	. Dominant sp	oecies are FA	CW, FAC and FACU.				

SOIL Sampling Point: bl-20200604-

Profile Desc	ription: (Describe	to the dept	h needed to doc	ument th	ne indica	tor or o	confirm the absence of	of indicators.)			
Depth Matrix Redox Features											
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-9	10YR 4/1	95	10YR 4/3	5	С	PL	Loamy/Clayey	silty clay loam			
9-19	10YR 5/2	90	10YR 4/4	10	C	M	Sandy	gravelly			
			_								
			_								
1			De desert Matrix	40. Mars			21	Di Dana Linia a M. Matria			
Hydric Soil	oncentration, D=Dep	letion, RIVI=	Reduced Matrix, i	vi5=iviasi	ked Sand	Grains		PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :			
Histosol			Sandy Gle	wed Mati	riv (S4)			t Prairie Redox (A16)			
	ipedon (A2)		Sandy Red	-				Manganese Masses (F12)			
Black His			Stripped M	, ,				Parent Material (F21)			
	n Sulfide (A4)		Dark Surfa	•	· )			Shallow Dark Surface (F22)			
	Layers (A5)		Loamy Mu		eral (F1)			(Explain in Remarks)			
2 cm Mu			Loamy Gle	-				,			
Depleted	Below Dark Surface	e (A11)	X Depleted N	-							
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and			
Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)							wetla	nd hydrology must be present,			
5 cm Mucky Peat or Peat (S3) ? Redox Depressions (F8)							unless disturbed or problematic.				
Restrictive	Layer (if observed):										
Type:											
Depth (ir	nches):		<u> </u>				Hydric Soil Present	? Yes X No			
Remarks:						<u>.</u>					
								of Hydric Soils in the United States,			
	2018. (https://www.n	-	_					and their are			
Hyaric soil in	dicator present as io	w cnroma/r	lign value deplete	a matrix v	with requ	irea rec	lox concentrations in po	ore linings.			
HYDROLO	GY										
Wetland Hy	drology Indicators:										
	cators (minimum of o	ne is requir						y Indicators (minimum of two required)			
	Water (A1)		Water-Sta				Surface Soil Cracks (B6)				
	ter Table (A2)		Aquatic Fa	•	•		X Drainage Patterns (B10)				
X Saturation			True Aqua					eason Water Table (C2) ish Burrows (C8)			
	arks (B1) t Deposits (B2)		Hydrogen x Oxidized F					ation Visible on Aerial Imagery (C9)			
	osits (B3)		Presence			-	` '	ed or Stressed Plants (D1)			
	t or Crust (B4)		Recent Iro					norphic Position (D2)			
	osits (B5)		Thin Muck					Neutral Test (D5)			
	on Visible on Aerial Ir	magery (B7			-			,			
Sparsely	Vegetated Concave	Surface (B	8) Other (Exp	olain in R	emarks)						
Field Obser	vations:										
Surface Wat	er Present? Ye	s	No X	Depth (ir	nches):	0					
Water Table	Present? Ye	s X	No	Depth (ir	nches):	7					
Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No							y Present? Yes X No No				
(includes car	· · ·										
Describe Re	corded Data (stream	gauge, mo	nitoring well, aeria	l photos,	previous	sinspec	ctions), if available:				
Domenter											
Remarks: Multiple prim	ary and secondary h	vdrology in	dicators present	Primarv s	ources o	f hvdrol	ogy are overbank flow	from intermittent Stream 047 and			
								north to Jonathan Creek that flows east			
	Creek that flows nor						•				

## Upland 048

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission L	ine Rebuild Projec	ct City/Cour	nty: Perry C	ounty	Sampling Da	ate: <u>06/0</u>	4/2020
Applicant/Owner: AEP				State: Ol	H Sampling Po	oint: upl-bl-2	20200604-09
Investigator(s): SM, BL		Section, T	ownship, Rai	nge: S 20 T 17N	R 15W		
Landform (hillside, terrace, etc.): terrace		 	_ocal relief (c	concave, convex, no	one): flat		
Slope (%): 2 Lat: 39.85898		Long: -8	82.20631		Datum: NAD 8	33	
Soil Map Unit Name: WmE - Westmoreland silt loam,	25 to 35 perce			NWI c	classification: N/A		
Are climatic / hydrologic conditions on the site typical	for this time of	vear?	Yes x	No (If n	o, explain in Remark	(s.)	
Are Vegetation, Soil, or Hydrology		•			sent? Yes	•	
Are Vegetation , Soil , or Hydrology	="			plain any answers i			_
SUMMARY OF FINDINGS – Attach site m	=			-	•	features	, etc.
Hydrophytic Vegetation Present? Yes X N	No	Is the	Sampled Ar	rea			
	No X		a Wetland?		No_X_		
	No X			_			
Remarks:		<u> </u>					
Upland 048 point out to wetland 047, located approx Not a wetland point as hydric soil and hydrology crite		east of wetla	ind boundary	, near toe of slope	on bank of intermitte	ent stream (	047.
VEGETATION – Use scientific names of pla	ants.						
	Absolute	Dominant	Indicator		_		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Tes	t worksheet:		
1.	- ——				inant Species That	4	(4)
2. 3.				Are OBL, FACW	-	4	_(A)
4				I otal Number of Across All Strata	Dominant Species	7	(B)
5.					nant Species That		_(5)
· ·		Total Cover		Are OBL, FACW		57.1%	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	)				-		_ ` `
1. Rosa multiflora	5	Yes	FACU	Prevalence Inde	ex worksheet:		
2. Carpinus caroliniana	3	Yes	FAC	Total % Co	ver of: Mu	ıltiply by:	
3				OBL species	5 x1=	5	_
4				FACW species_	55 x 2 =	110	_
5				FAC species	33 x 3 =	99	_
Harle Christians (Districts 51)	=	Total Cover		FACU species	35 x 4 = 0 x 5 =	140 0	_
Herb Stratum (Plot size: 5' )  1. Poa palustris	20	Voc	EACW/	UPL species  Column Totals:		354	(B)
Dichanthelium clandestinum	20	Yes Yes	FACW FACW	Prevalence In	128 (A)	2.77	_(B)
3. Asclepias syriaca	15	Yes	FACU	i revalence ii	- Birt	2.11	-
4. Apocynum cannabinum	15	Yes	FAC	Hydrophytic Ve	getation Indicators	 s:	
5. Galium aparine	15	Yes	FACU		est for Hydrophytic V		
6. Geum aleppicum	10	No	FACW		ice Test is >50%	•	
7. Impatiens pallida	10	No	FAC	3 - Prevalen	ce Index is ≤3.0 <sup>1</sup>		
8. Boehmeria cylindrica	5	No	OBL		ogical Adaptations¹ (		
9. Solidago gigantea	5	No	FACW	data in Re	emarks or on a sepa	rate sheet)	
10. Symphyotrichum prenanthoides	5	No	FAC		Hydrophytic Vegeta		<i>'</i>
Woody Vine Stretum (Distriction CO)	120 =	Total Cover		,	dric soil and wetland	, ,,	must
Woody Vine Stratum (Plot size: 30' 1.	_)				ss disturbed or prob	iematic.	
2.				Hydrophytic			
<u> </u>	· ——=	Total Cover		Vegetation Present?	Yes X No		
Remarks: (Include photo numbers here or on a sepa							
Hydrophytic vegetation indicator present as dominan	,	Dominant sp	ecies are FA	CW, FAC and FAC	U.		

Upland 048

SOIL Sampling Point: -bl-20200604

	cription: (Describe t	to the depti				tor or o	confirm the	absence of i	ndicators.)		
Depth	Matrix			x Featur		12	T	<b>.</b>	D		
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Text			narks	
0-20	10YR 5/3	80	10YR 4/2	20	<u>D</u>	<u>M</u>	Loamy/	Clayey	Silty	Loam	
1 <sub>Type: C=C</sub>	oncentration, D=Depl	otion PM-I	Poducod Matrix I	MS-Mas	kod San	d Grains	·	<sup>2</sup> Location: D	L=Pore Lining, M	I-Matrix	
Hydric Soil		euon, min-i	teduced Matrix, i	VIO-IVIAS	Neu San	Gianis	). 		or Problematic I		ils <sup>3</sup> .
Histosol			Sandy Gle	eved Mat	rix (S4)				rairie Redox (A16	-	
	oipedon (A2)		Sandy Re						nganese Masses	•	
	stic (A3)		Stripped N						ent Material (F21		
	en Sulfide (A4)		Dark Surfa	`	,				allow Dark Surfac	•	
	d Layers (A5)		Loamy Mu		eral (F1)				xplain in Remark		
2 cm Mu	ıck (A10)		Loamy Gle	eyed Mat	rix (F2)						
Deplete	d Below Dark Surface	(A11)	Depleted I	Matrix (F	3)						
Thick Dark Surface (A12) Redox Dark Surface (F6)							<sup>3</sup> Indicators o	f hydrophytic veg	etation an	d	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)						wetland	hydrology must b	e present	,		
5 cm Mu	icky Peat or Peat (S3	)	Redox De	pression	s (F8)			unless d	isturbed or proble	ematic.	
Restrictive	Layer (if observed):										
Type:			_								
Depth (i	nches):						Hydric So	oil Present?	Yes		No X
Remarks:											
	rm is revised from Mic								Hydric Soils in th	ne United S	States,
	2018. (https://www.nibil indicators present.	rcs.usda.go	v/Internet/FSE_D	OCUME	N I S/nrc	s142p2_	_053171.pat	·)			
I NO Hydric Sc	in indicators present.										
HYDROLO	OGY										
_	drology Indicators: cators (minimum of or	no ie roquire	od: chock all that	annly)				Socondary I	ndicators (minimu	ım of two i	roquirod)
	Water (A1)	ie is require	Water-Sta		ves (RQ)				Soil Cracks (B6)	iiii Oi two i	<u>equileu)</u>
	ater Table (A2)		Aquatic Fa		` '				e Patterns (B10)		
Saturation	` '		True Aqua	`	,				son Water Table	(C2)	
	larks (B1)		Hydrogen			)			Burrows (C8)	(- )	
	nt Deposits (B2)		Oxidized F	Rhizosph	eres on I	₋iving R	oots (C3)		on Visible on Aeri	al Imagery	/ (C9)
Drift Dep	posits (B3)		Presence	of Reduc	ed Iron (	C4)		Stunted	or Stressed Plan	ts (D1)	
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Ti	lled Soil	ls (C6)	X Geomor	phic Position (D2	)	
Iron Dep	oosits (B5)		Thin Muck	Surface	(C7)			FAC-Ne	utral Test (D5)		
	on Visible on Aerial In	0 , ,		Well Dat	a (D9)						
Sparsely	Vegetated Concave	Surface (B	3)Other (Exp	olain in R	Remarks)						
Field Obser	vations:										
Surface Wat	ter Present? Yes		No X	Depth (i	_						
Water Table		s			nches):						
Saturation Present? Yes No X Depth (inches):							Wetland	d Hydrology I	Present? Yes		No X
,	pillary fringe)	<b>AOURS</b> ************************************	sitoring well seed	J nh -4	nro.de:	- Inc:	tions) if	ailahla.			
Describe Re	corded Data (stream	gauge, mor	ilitoring well, aeria	ai pnotos	, previou	s inspec	cuons), if ava	aliable:			
Remarks:											
	ary hydrology indicato	or present									
	,, 5.5g, maisak	r. 555110									

Site: Crooksville	e-North Newark 138 kV Transmission Line Rebuild Project	<b>Date:</b> June 4, 2020
Wetland: w-	bl-20200604-05	Rater: BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts)  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)  x <0.1 acres (0.04ha) (0 pts)	
9 9 Subtotal Points	Metric 2. Upland buffers and surrounding land use. (r  2a. Calculate average buffer width (select one, do not double check)  WIDE. Buffers average 50m (164ft) or more around wetle  X MEDIUM. Buffers average 25m to <50m (82 to <164ft) a  NARROW. Buffers average 10m to <25m (32ft to <82ft)  VERY NARROW. Buffers average <10m (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (select one or double check & average <10m. (<32ft) around to very surrounding land use (selec	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)  erage) h, wildlife area, etc. (7) owth forest. (5) , conservation tillage, new fallow field. (3)
30 21 Subtotal Points	High pH groundwater (5) Other groundwater (3)  x Precipitation (1) x Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)	3b. Connectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  X Part of wetland/upland (e.g. forest), complex (1)  X Part of riparian or upland corridor (1)  3d. Duration inundation/saturation.  (select one or double check & average)  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  X Seasonally inundated (2)  Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed  ditch
38 8 Subtotal Points	Metric 4. Habitat Alteration and Development. (max 2)  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  x Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  x Poor to fair (2)  Poor (1)  Check all disturbate grazing  grazing  clearcutting  selective cutting  woody debris remo	20 pts.)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  x Recovering (3)  Recent or no recovery (1)  ances observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

ORAM v. 5.0 Field Form Qua			
	e-North Newark 138 kV Transmission Line Rebuil	_	June 4, 2020
Wetland: w-	bl-20200604-05	Rater:	BL, SM
38 subtotal first	page		
38 0	Metric 5. Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all that apply and score as indicated  Bog (10 pts)		
	Fen (10 pts)		
	Old Growth Forest (10 pts)		
	Mature forested wetland (5 pts)		
	Lake Erie coastal/tributary wetland-unre	estricted hydrolo	gy (10 pts)
	Lake Erie coastal/tributary wetland-restr	ricted hydrology	(5 pts)
	Lake Plain Sand Prairies (Oak Opening	s) (10 pts)	
	Relict Wet Prairies (10 pts)		
	Known occurrence state/federal threate	ned or endange	ered species (10)
	Significant migatory songbird/waterfowl	_	
	Category 1 Wetland. See Question 1 o	f Qualitative Ra	ting. (-10 pts)
40	Matria C. Blant Communities into management	! 4	
43 5	Metric 6. Plant Communities, interspersion	i, microtopo	grapny. (max 20 pts.)
Subtotal Points	6a. Wetland Vegetation Communities	Vogototio	on Community Cover Scale
	Score all present using 0 to 3 scale  O Aquatic bed	Vegetatio	T Community Cover Scale
	1 Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	0 Shrub		
	0 Forest	1	Present and either comprises small part of wetland's vegetation and is
	0 Mudflats		of moderate quality, or comprises a significant part but is of low quality
	0 Open water		Present and either comprises significant part of wetland's vegetation
	Other (list)	2	and is of moderate quality or comprises a small part and is of high
			quality
	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		and is of high quality
	High (5)  Moderately high (4)	Narrative	Description of Vegetation Quality
	Moderate (3)		Low spp diversity and/or predominance of nonnative or disturbance
	Moderately low (2)	low	tolerant native species
	x Low (1)		Native spp are dominant component of the vegetation, although
	None (0)	moderate	nonnative and/or disturbance tolerant native spp can also be present,
	<del></del>	moderate	and species diversity moderate to moderately high, but generally w/o
	6c. Coverage of invasive plants.		presence of rare threatened or endangered spp
	Refer to Table 1 ORAM long form for list. Add or deduct points for coverage		A predominance of native species, with nonnative spp and/or
	·	high	disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or
	Extensive >75 % cover (-5)		endangered spp
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		
	Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	x Absent (1)	0	Absent <0.1 ha (0.2471 acres)
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more
	Score all present using 0 to 3 scale		
	2 Vegetated hummocks/tussocks		ography Cover Scale
	O Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh	1	Present very small amounts or if more common of marginal quality
	0 Amphibian breeding pools	-	
		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
		-	



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 047

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing North



### Wetland 047

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 047

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing South



### Wetland 047

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 047

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lin	e Rebuild Proje	ect City/Cou	nty: Perry C	ounty	Sampling Date	: 06/04/2020	
Applicant/Owner: AEP				State: OH	Sampling Point	w-bl-20200604-03a	
Investigator(s): SM, BL		Section, T	ownship, Ra	nge: S 20 T 17N R 15V	٧		
Landform (hillside, terrace, etc.): shoulder		!	Local relief (c	concave, convex, none):	concave		
Slope (%): 5 Lat: 39.86205		Long: -	82.2093		Datum: NAD 83		
Soil Map Unit Name: WhC Wellston silt loam, 8 to 15 p	ercent slope	s		NWI classif	cation: N/A		
Are climatic / hydrologic conditions on the site typical fo	or this time of	f year?	Yes x	No (If no, exp	lain in Remarks.)	 )	
Are Vegetation, Soil, or Hydrologys	significantly o	listurbed? A	re "Normal C	Circumstances" present?	Yes x	No	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No	)	Is the	Sampled A	rea			
			n a Wetland?		No		
Wetland Hydrology Present? Yes X No							
Remarks:		<u>-</u>					
Sampling point in for Wetland 048a, PEM component delineated. Wetland is isolated; drains downslope to the					ortion. Entire wetl	and	
VEGETATION – Use scientific names of pla			<u> </u>				
·	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor			
1				Number of Dominant S Are OBL, FACW, or F.	•	2 (A)	
3.				Total Number of Domi		(A)	
4.				Across All Strata:	nant Species	2 (B)	
5.				Percent of Dominant S	—— Species That	` ′	
		Total Cover		Are OBL, FACW, or F.	•	100.0% (A/B)	
Sapling/Shrub Stratum (Plot size: 15')							
1. Prunus serotina	1	No	FACU	Prevalence Index wo			
2. Rubus occidentalis	1	No	UPL	Total % Cover of			
3. 4.				OBL species 50 FACW species 95		50 190	
5.				FAC species 0		0	
o	2	=Total Cover		FACU species 14		56	
Herb Stratum (Plot size: 5' )				UPL species 1	x 5 =	5	
Onoclea sensibilis	75	Yes	FACW	Column Totals: 16	0 (A)	301 (B)	
2. Acorus calamus	30	Yes	OBL	Prevalence Index =	= B/A =1.8	88	
3. <u>Dichanthelium clandestinum</u>	20	No	FACW				
4. Juncus effusus	20	No	OBL	Hydrophytic Vegetat			
5. Poa pratensis	10	No No	FACU	X 1 - Rapid Test for		etation	
6. Asclepias syriaca	3	<u>No</u>	<u>FACU</u>	X 2 - Dominance Te			
7. 8.				4 - Morphological		ovido supporting	
					s or on a separat		
10.				Problematic Hydro			
	158	Total Cover		<sup>1</sup> Indicators of hydric so		` ' '	
Woody Vine Stratum (Plot size: 30' )				be present, unless dis			
1.				Hydrophytic			
2				Vegetation			
		=Total Cover		Present? Yes_	<u> </u>		
Remarks: (Include photo numbers here or on a separ	,						
Hydrophytic vegetation indicator present as rapid test.	Dominant s	pecies are OE	s∟ and ⊦ACW	<i>I</i> .			

SOIL Sampling Point: 21-20200604-0

	cription: (Describe t	o the depth				tor or c	onfirm the abs	ence of in	dicators.)		
Depth	Matrix			x Featur		. 2	<b>-</b> .				
(inches)	Color (moist)	<u> </u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remark		
0-4	10YR 4/1	98	10YR 4/6	2	<u>C</u>	PL	Loamy/Clay	/ey	silty clay lo	oam	
4-9	2.5YR 5/2	90	2.5YR 4/4	10	С	PL	Loamy/Clay	/ey	sandy clay	oam	
9-17	2.5YR 5/6	60	2.5YR 5/2	40	D	М	Loamy/Clay	/ey	sandy clay loam, n	nixed matrix	
			_								
1Type: C=C	oncentration, D=Depl	etion RM-F	Peduced Matrix I	M-Pac	ked Sand	l Grains	21.0	cation: DI	.=Pore Lining, M=M	atriv	
	Indicators:	etion, Mivi-i	teduced Matrix, I	vio-ivias	Keu Sanc	Oranis			r Problematic Hyd		
Histosol			Sandy Gle	ved Mat	rix (S4)				airie Redox (A16)		
	pipedon (A2)		Sandy Re	-			-	_	ganese Masses (F1	2)	
	istic (A3)		Stripped M					_	nt Material (F21)	,	
X Hydroge	en Sulfide (A4)		Dark Surfa	ace (S7)	•			Very Sha	llow Dark Surface (I	=22)	
Stratifie	d Layers (A5)		Loamy Mu	icky Mine	eral (F1)			Other (Ex	plain in Remarks)		
2 cm Mu	uck (A10)		Loamy Gle	eyed Mat	rix (F2)			_"			
Deplete	d Below Dark Surface	(A11)	X Depleted I	•	•						
	ark Surface (A12)		Redox Da				<sup>3</sup> Inc		hydrophytic vegetat		
	Mucky Mineral (S1)		Depleted [						ydrology must be p		
5 cm Mu	ucky Peat or Peat (S3	)	X Redox De	pression	s (F8)			unless dis	sturbed or problema	tic.	
Restrictive	Layer (if observed):										
Type:											
Depth (i	nches):						Hydric Soil Pi	resent?	Yes_>	No	
Version 8.2, Hydric soil i	rm is revised from Mic 2018. (https://www.n ndicators present as k h distinct hydrogen su	rcs.usda.go ow chroma/h	v/Internet/FSE_D nigh value deplete	OCUME	NTS/nrcs	142p2_	_053171.pdf)				
HYDROLO	OGY										
Wetland Hy	drology Indicators:										
	cators (minimum of o	ne is require	d; check all that	apply)			Sec	condary In	dicators (minimum d	of two required)	
Surface	Water (A1)		Water-Sta	ined Lea	ves (B9)			Surface S	Soil Cracks (B6)		
High Wa	ater Table (A2)		Aquatic Fa	auna (B1	3)		X Drainage Patterns (B10)				
Saturati	, ,		True Aqua		` '		Dry-Season Water Table (C2)				
	larks (B1)		X Hydrogen					_	Burrows (C8)		
	nt Deposits (B2)		X Oxidized F			-	oots (C3)	_	n Visible on Aerial II		
	posits (B3)		Presence				- (CC) Y	_	r Stressed Plants (I	01)	
	at or Crust (B4)		Recent Iro			iea Soii	· · ·	- '	hic Position (D2) tral Test (D5)		
	oosits (B5) on Visible on Aerial In	nagery (R7)	Thin Muck Gauge or					_ FAC-Neu	irai Test (D5)		
	y Vegetated Concave	,									
Field Obser	, ,	Carrage (Be	outer (EX	Jani III I	cinario)						
	ter Present? Ye	3	No X	Depth (i	nches).						
Water Table				Depth (i	′ –						
							( No				
(includes capillary fringe)											
<u> </u>	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks:			_		_	_		_			
	nary and secondary h		•	-			•			runoff in	
geomorphic	position. Wetland dra	1011111	รดอเ บนเอเนษ อเนน	y ar <del>c</del> a, II	o delillet	ulallia	ge reature prese	in, potenti	any isolateu.		

## Wetland 048b

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line	e Rebuild Proje	ect City/Cou	unty: Perry C	ounty	Sampling Date	e: <u>06/04/</u>	2020
Applicant/Owner: AEP				State: OH	Sampling Point	t: w-bl-2020	00604-03b
Investigator(s): SM, BL		Section,	Township, Ra	nge: S 20 T 17N R 1	5W		
Landform (hillside, terrace, etc.): hillslope			Local relief (c	concave, convex, none	): convex		
Slope (%):5		Long: -	-82.20927		Datum: NAD 83		
Soil Map Unit Name: WhC - Wellston silt loam, 8 to 15	percent slop	es		NWI clas	sification: N/A		
Are climatic / hydrologic conditions on the site typical fo	r this time of	f year?	Yes x	No (If no, e	explain in Remarks.	)	
Are Vegetation, Soil, or Hydrologys	ignificantly o	disturbed?	Are "Normal C	Circumstances" presen	t? Yes x	No	
Are Vegetation, Soil, or Hydrologyn	aturally prob	olematic?	(If needed, ex	plain any answers in R		<u>-</u>	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No	)	Is the	e Sampled Aı	rea			
			in a Wetland?		No		l
Wetland Hydrology Present? Yes X No					<u> </u>		!
Remarks:							
Wetland 048b sampling point for PFO component of W downslope to the north, no surface water feature presentations.		east of PEM	component).	Entire wetland delinear	ted. Wetland is isol	ated; drain	ıs
VEGETATION – Use scientific names of plan	nts.			-			
	Absolute	Dominant	Indicator	,			
Tree Stratum (Plot size: 30' )	% Cover	Species?	Status	Dominance Test w			I
1. Prunus serotina	30	Yes	FACU	Number of Dominar	•	_	(4)
2. Quercus palustris	20	Yes	FACU	Are OBL, FACW, or		5	(A)
3. Carya glabra	20	Yes	FACU	Total Number of Do	minant Species	0	/D\
4 5.				Across All Strata:		8	(B)
] 5	70 =	=Total Cover		Percent of Dominan Are OBL, FACW, or	•	62.5%	(A/B)
Sapling/Shrub Stratum (Plot size: 15' )		10.0		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		02.075	(, , _ ,
1. Ligustrum vulgare	30	Yes	FACU	Prevalence Index v	worksheet:		
Cornus racemosa	10	Yes	FAC	Total % Cover		oly by:	
3. Fraxinus pennsylvanica	10	Yes	FACW	OBL species	0 x 1 =	0	
4. Lindera benzoin	5	No	FACW	FACW species	75 x 2 =	150	
5. Carpinus caroliniana	3	No	FAC	FAC species	33 x 3 =	99	
·	60	=Total Cover		FACU species	85 x 4 =	340	
Herb Stratum (Plot size: 5' )				UPL species	0 x 5 =	0	
1. Packera aurea	30	Yes	FACW	Column Totals:	193 (A)	589	(B)
2. Juncus tenuis	20	Yes	FAC	Prevalence Index	x = B/A = 3.	05	
3. Geum aleppicum	5	No	FACW				
4. Agrimonia parviflora	5	No	FACW	Hydrophytic Veget	tation Indicators:		
5. Persicaria virginiana	3	No	FACU	1 - Rapid Test f	for Hydrophytic Veg	jetation	
6.			<u> </u>	X 2 - Dominance	Test is >50%		
7.				3 - Prevalence	Index is ≤3.0 <sup>1</sup>		
8					cal Adaptations <sup>1</sup> (Pro		porting
9				data in Rema	arks or on a separat	te sheet)	
10				Problematic Hy	drophytic Vegetatio	ın <sup>1</sup> (Explaiı	n)
	63	=Total Cover		<sup>1</sup> Indicators of hydric			nust
Woody Vine Stratum (Plot size: 30' )				be present, unless of	disturbed or probler	natic.	
1.				Hydrophytic			
2.		<del></del>		Vegetation			
		=Total Cover		Present? Ye	s <u>X</u> No		
Remarks: (Include photo numbers here or on a separa	,					<del>_</del>	_
Hydrophytic vegetation indicator present as dominance	e test > 50%	. Dominant s	pecies are ⊦A	CW, FAC and FACU			

Sampling Point: w-bl-20200604-03k

### **VEGETATION Continued** – Use scientific names of plants.

Absolute Dominant Indicator % Cover Species? Tree Stratum Status **Definitions of Vegetation Strata:** 6. Tree - Woody plants 3 in. (7.6 cm) or more in diameter 7. at breast height (DBH), regardless of height. 8. Sapling/Shrub - Woody plants less than 3 in. DBH 9. and greater than 3.28 ft (1 m) tall. 10. \_\_\_\_\_\_ 11. \_\_\_\_\_ Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody 12. plants less than 3.28 ft tall. 70 =Total Cover Woody Vine - All woody vines greater than 3.28 ft in height. Sapling/Shrub Stratum 6. Rosa multiflora 2 No 7. 8. 9. 10.\_\_\_\_ 11. \_\_\_\_\_ 12. 60 =Total Cover Herb Stratum 11. 14. 63 =Total Cover Woody Vine Stratum 3. 5. 6. =Total Cover Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: pl-20200604-0

Profile Des	cription: (Describe t	to the dept	h needed to doc	ument th	ne indica	tor or o	confirm the absence	of indicators.)			
Depth	Matrix		Redo								
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-6	10YR 4/1	80	7.5YR 4/4	20	С	PL/M	Loamy/Clayey	clay loam			
6-12	10YR 5/1	60	7.5YR 5/6	40	С	M	Loamy/Clayey	silty clay loam			
-											
								·			
								· <del></del>			
	Concentration, D=Depl	etion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	d Grains		n: PL=Pore Lining, M=Matrix.			
	Indicators:		0 1 01		. (0.1)			ors for Problematic Hydric Soils <sup>3</sup> :			
Histosol			Sandy Gle	-	rix (S4)			ast Prairie Redox (A16)			
	pipedon (A2)		Sandy Re		• • • • • • • • • • • • • • • • • • • •			-Manganese Masses (F12)			
	istic (A3)		Stripped M Dark Surfa	•	))			l Parent Material (F21) y Shallow Dark Surface (F22)			
	en Sulfide (A4) d Layers (A5)		Loamy Mu		rol (E1)			` , ,			
	uck (A10)		Loamy Gle	-				er (Explain in Remarks)			
	d Below Dark Surface	(Δ11)	X Depleted I	-							
	ark Surface (A12)	(7.11)	Redox Da	•	•		<sup>3</sup> Indicate	ors of hydrophytic vegetation and			
	Mucky Mineral (S1)		Depleted I		` '			land hydrology must be present,			
	ucky Peat or Peat (S3	)	X Redox De		, ,			ess disturbed or problematic.			
_	Layer (if observed):	,			( - /			· · · · · · · · · · · · · · · · · · ·			
Type:	Layer (ii observeu).										
Depth (i	nches):						Hydric Soil Prese	nt? Yes X No			
Remarks:			_								
	rm is revised from Mic	lwest Regio	onal Supplement \	/ersion 2	0 to incl	ude the	NRCS Field Indicato	rs of Hydric Soils in the United States,			
	2018. (https://www.n							is a rigane cono in the critica states,			
-			-	ed matrix	with red	ox cond	centrations in pore lin	ings, in closed depression subject to			
ponding, wit	h distinct hydrogen su	ulfide odor p	oresent.								
HYDROLO	OGY										
Wetland Hy	drology Indicators:										
	cators (minimum of o	ne is requir	ed; check all that	apply)			Second	ary Indicators (minimum of two required)			
X Surface	•	•	Water-Sta		ves (B9)			face Soil Cracks (B6)			
X High Wa	ater Table (A2)		Aquatic Fa	auna (B1	3)			inage Patterns (B10)			
X Saturati			True Aqua				Dry-Season Water Table (C2)				
Water M	larks (B1)		X Hydrogen	Sulfide C	Odor (C1)	)	Cra	yfish Burrows (C8)			
Sedime	nt Deposits (B2)		Oxidized F	Rhizosph	eres on l	iving R	oots (C3) Sat	uration Visible on Aerial Imagery (C9)			
Drift De	posits (B3)		Presence	of Reduc	ed Iron (	C4)	Stu	nted or Stressed Plants (D1)			
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Ti	lled Soil	ls (C6) <u>X</u> Geo	omorphic Position (D2)			
	posits (B5)		Thin Muck				<u>X</u> FAC	C-Neutral Test (D5)			
	on Visible on Aerial In				, ,						
Sparsel	y Vegetated Concave	Surface (B	8) Other (Exp	olain in R	emarks)		_				
Field Obser											
	ter Present? Yes			Depth (ii	· -						
Water Table				Depth (ii	_						
Saturation F		s_X_	No	Depth (II	nches):	0	Wetland Hydrolo	ogy Present? Yes X No			
(includes capillary fringe)											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks:											
	nary and secondary h	ydology ind	icators present. P	rimary so	ource of l	hydrolod	gy is concentation of	precipitation and surface runoff in			
	position. Wetland dra	, ,,	•	•		,		•			

## Upland 050

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line Re	ebuild Project	ւ City/Cou	ınty: Perry Cou	ınty	Samp	oling Date:	06/04/2	2020
Applicant/Owner: AEP				State: C	OH Samp	oling Point:	upl-bl-2020	00604-06
Investigator(s): SM, BL		Section, 7	 Γownship, Rang	je: S 20 T 17N	I R 15W			
Landform (hillside, terrace, etc.): hillslope			Local relief (cor	ncave, convex, n	none): convex			
Slope (%): 10 Lat: 39.86204		Long: -	-82.20941		Datum:	NAD 83		
Soil Map Unit Name: WhC - Wellston silt loam, 8 to 15 per	rcent slopes	s		NWI	classification:	N/A		
Are climatic / hydrologic conditions on the site typical for th	nis time of y	year?	Yes x	No(If r	no, explain in F	Remarks.)		
Are Vegetation, Soil, or Hydrologysign	nificantly dis	sturbed? /		cumstances" pre			o	
Are Vegetation, Soil, or Hydrologynatu			(If needed, expla	ain any answers	in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes X No		Is the	e Sampled Area	 a				
Hydric Soil Present? Yes No		withi	n a Wetland?	Yes	No	X		
Wetland Hydrology Present? Yes No	X							
Remarks:			<del>-</del>		_	_		
Upland 050 point out to wetland 048. Located approximat as hydric soil and hydrology criteria not met.	tely 5' south	n of wetland	boundary, upsi	ope where drair	nage comes tro	om. Not a w	etland p	oint
, , ,								
<b>VEGETATION</b> – Use scientific names of plants		Dominant	Indicator					
		Species?	Status	Dominance Te	est worksheet	:		
1				Number of Dom				
2.				Are OBL, FACV	•		2 (	(A)
3.	<u> </u>			Total Number o		pecies		
4				Across All Strat	ta:		2 (	(B)
5	<u>_</u> -			Percent of Dom	•		/	· · · / · · · ·
Continue (Objects Objects of State )	=ı	Total Cover		Are OBL, FACV	N, or FAC:	10	0.0% (	(A/B)
Sapling/Shrub Stratum (Plot size: 15' )	2	N <sub>0</sub>	LIDI	Prevalence Inc		٤.		
Rubus occidentalis 2.	3	No	UPL	Total % Co		et: Multiply	, hv.	
3.				OBL species	_	x 1 =	0	
4.				FACW species			200	
5.				FAC species		x 3 =	0	
	3 =T	Total Cover		FACU species	10	x 4 =	40	
Herb Stratum (Plot size: 5' )				UPL species	3		15	
1. Dichanthelium clandestinum	60	Yes	FACW	Column Totals:	113 (/	A)	255 (	(B)
Onoclea sensibilis	30	Yes	FACW	Prevalence I	Index = B/A =	2.26	3	
3. Asclepias syriaca	10	No	FACU					
4. Cyperus strigosus	10	No	FACW	Hydrophytic V	_			
5	<del></del> -				est for Hydrop		ation	
6.				X 2 - Domina	ince Test is >5 ince Index is ≤			
7	<del></del> -				nce index is ≤. logical Adapta		ida eunn	orting
9.					Remarks or on	•		Orang
10.					c Hydrophytic			n)
	110 =T	Total Cover		<sup>1</sup> Indicators of hy		_		
Woody Vine Stratum (Plot size: 30')				be present, unle				luot
1.				Hydrophytic		-		
2.				Vegetation				
	=T	Total Cover		Present?	Yes X	No	_	
Remarks: (Include photo numbers here or on a separate	,							
Hydrophytic vegetation indicator present as dominance te	∍st > 50%. [	Dominant sp	pecies are FAC\	W.				

Upland 050

SOIL Sampling Point: -bl-20200604

		o the dep				tor or o	confirm the absence o	of indicators.)	
Depth	Matrix			x Featur		. 2	<b>-</b> .		
(inches)	Color (moist)	<u> %</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-7	10YR 4/3	100					Loamy/Clayey	Silty Loam	
7-17	10YR 5/3	80	10YR 5/6	20	<u>C</u>	M	Loamy/Clayey	Silty Clay Loa	am
_									
1 <sub>Type:</sub> C=C	oncentration D-Depl	otion DM-	- Poducod Matrix I		kod Son	Croine	<sup>2</sup> l coation:	PL=Pore Lining, M=Mat	riv
Hydric Soil	oncentration, D=Depl	ellori, Rivi-	Reduced Matrix, i	vio-ivias	keu Sand	ı Grains		s for Problematic Hydri	•
Histosol			Sandy Gle	ved Mat	rix (S4)			Prairie Redox (A16)	c cons .
	pipedon (A2)		Sandy Re	-				Manganese Masses (F12)	)
	istic (A3)		Stripped M					Parent Material (F21)	•
	en Sulfide (A4)		Dark Surfa	,	,			Shallow Dark Surface (F2	22)
	d Layers (A5)		Loamy Mu		eral (F1)			(Explain in Remarks)	,
2 cm Mu	uck (A10)		Loamy Gle	eyed Ma	trix (F2)				
Deplete	d Below Dark Surface	(A11)	Depleted I	Matrix (F	3)				
Thick Da	ark Surface (A12)		Redox Da	rk Surfac	ce (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation	n and
	/lucky Mineral (S1)		Depleted [		, ,			nd hydrology must be pre	
5 cm Mu	ucky Peat or Peat (S3	)	Redox De	pression	s (F8)		unles	s disturbed or problemation	С.
Restrictive	Layer (if observed):								
Type:									
Depth (i	nches):						Hydric Soil Present	? Yes	NoX
Remarks:									
		•	• • •					of Hydric Soils in the Un	ited States,
	2018. (https://www.n bil indicators present.	cs.usda.go	DV/Internet/FSE_D	OCUME	:N I S/nrcs	s142p2_	_U53171.pat)		
140 Hydrio oc	on indicators present.								
HYDROLO	OGY								
-	rdrology Indicators: cators (minimum of o	ne is requir	ed: check all that	annly)			Secondar	y Indicators (minimum of	two required)
	Water (A1)	ie is requii	Water-Sta		ives (R9)			ce Soil Cracks (B6)	two required)
	ater Table (A2)		Aguatic Fa		, ,			age Patterns (B10)	
Saturation	` '		True Aqua	,	,			eason Water Table (C2)	
	larks (B1)		Hydrogen			)		ish Burrows (C8)	
	nt Deposits (B2)		Oxidized F	Rhizosph	eres on I	_iving R	oots (C3) Satur	ation Visible on Aerial Ima	agery (C9)
Drift De	posits (B3)		Presence	of Redu	ced Iron (	C4)	Stunte	ed or Stressed Plants (D1	1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Ti	lled Soil	ls (C6)Geom	norphic Position (D2)	
	oosits (B5)		Thin Muck				X FAC-I	Neutral Test (D5)	
	on Visible on Aerial Ir	0 , (	, <u>—</u>						
Sparsely	y Vegetated Concave	Surface (E	38) Other (Exp	olain in F	Remarks)				
Field Obser									
	ter Present? Ye				nches):				
Water Table		<u> </u>			nches): _				
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X									
(includes capillary fringe)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									
One secondary hydrology indicator present.									
		•							
I									

Site: Crooksvill	e-North Newark 138 kV Transmission Line Rebuild Project	<b>Date:</b> June 4, 2020
Wetland: w-	bl-20200604-03ab	Rater: BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts)  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)  x <0.1 acres (0.04ha) (0 pts)	
12 12 Subtotal Points	Metric 2. Upland buffers and surrounding land use. (m  2a. Calculate average buffer width (select one, do not double check)  X WIDE. Buffers average 50m (164ft) or more around wetlan MEDIUM. Buffers average 25m to <50m (82 to <164ft) around volume to <25m (32ft to <82ft) average 10m to <25m (32ft to <82ft) average 10m (<32ft) around wolume to x0 for surrounding land use (select one or double check & average very Low. 2nd growth or older forest, prairie, savannah x Low. Old field (>10 years), shrubland, young second grown MODERATELY HIGH. Residential, fenced pasture, park, of HIGH. Urban, industrial, open pasture, row cropping, mining the control of the contr	and perimeter (7) bund wetland perimeter (4) around wetland perimeter (1) retland perimeter (0) retland perimeter (5) retland perimeter (3) retland perimeter (4) retland perimeter (5) retland perimeter (5) retland perimeter (6)
23 11 Subtotal Points	High pH groundwater (5) Other groundwater (3)  x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5)	b. Connectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)  d. Duration inundation/saturation.  (select one or double check & average)  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  Seasonally inundated (2)  X Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed  ditch
33 10 Subtotal Points	Metric 4. Habitat Alteration and Development. (max 2t)  4a. Substrate disturbance. Score one or double check and average.  X None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1)  Check all disturbate grazing grazing clearcutting selective cutting woody debris remov toxic pollutants	C. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  X Recovering (3)  Recent or no recovery (1)  nces observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

ORAM v. 5.0 Field For	m Quantitative Rating								
Site: Crook	sville-North Newark 138 kV Transmission Line Rebu	ild <b>Date:</b>	June 4, 2020						
Wetland:	w-bl-20200604-03ab	Rater:	BL, SM						
33 subtotal	l first page								
33 0	Metric 5. Special Wetlands. (max 10 pts.)								
Subtotal Points	Check all that apply and score as indicated								
	Bog (10 pts)								
	Fen (10 pts)								
	Old Growth Forest (10 pts)								
	Mature forested wetland (5 pts)		<i>(12.1.)</i>						
	Lake Erie coastal/tributary wetland-un	,							
	Lake Erie coastal/tributary wetland-res  Lake Plain Sand Prairies (Oak Openin								
	Relict Wet Prairies (10 pts)	iga) (10 pta)							
	Known occurrence state/federal threa	tened or endange	red species (10)						
	Significant migatory songbird/waterfov	_							
	Category 1 Wetland. See Question 1	-							
39 6	Metric 6. Plant Communities, interspersio	n, microtopo	graphy. (max 20 pts.)						
Subtotal Points	6a. Wetland Vegetation Communities								
	Score all present using 0 to 3 scale	Vegetatio	n Community Cover Scale						
	0 Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area						
	2 Emergent								
	0 Shrub	4	Present and either comprises small part of wetland's vegetation and is						
	0 Forest 0 Mudflats	1	of moderate quality, or comprises a significant part but is of low quality						
	0 Open water		Dung out and either an arranging a simple and under the standard of the standa						
	Other (list)	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						
	Cutof (not)		quality						
	6b. Horizontal (plan view) interspersion	-	Present and comprises significant part, or more, of wetland's vegetation						
	Select only one	3	and is of high quality						
	High (5)								
	Moderately high (4)	Narrative	Description of Vegetation Quality						
	Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance						
	Moderately low (2)		tolerant native species						
	x Low (1)		Native spp are dominant component of the vegetation, although						
	None (0)	moderate	nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o						
	6c. Coverage of invasive plants.		presence of rare threatened or endangered spp						
	Refer to Table 1 ORAM long form for list. Add		A must describe the second of						
	or deduct points for coverage		A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp						
	Extensive >75 % cover (-5)	high	diversity and often, but not always, the presence of rare, threatened, or						
	Moderate 25-75% cover (-3)		endangered spp						
	Sparse 5-25% cover (-1)								
	Nearly Absent <5% cover (0)	Mudflat ar	nd Open Water Class Quality						
	x Absent (1)	0	Absent <0.1 ha (0.2471 acres)						
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)						
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)						
	6d. Microtopography	3	High 4 ha (9.88 acres) or more						
	Score all present using 0 to 3 scale  1 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale						
	1 Coarse woody debris >15 cm (6")	0	Absent						
	0 Standing dead > 25 cm (10") dbh								
	0 Amphibian breeding pools	1	Present very small amounts or if more common of marginal quality						
	<u> </u>	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						



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 048a

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing North



### Wetland 048a

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 048a

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing South



### Wetland 048a

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 048a

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 048b

Date:

June 4, 2020

**Description:** 

PFO wetland

Category 2

Facing North



### Wetland 048b

Date:

June 4, 2020

**Description:** 

PFO wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 048b

Date:

June 4, 2020

**Description:** 

PFO wetland

Category 2

Facing South



## Wetland 048b

Date:

June 4, 2020

**Description:** 

PFO wetland

Category 2

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 048b

Date:

June 4, 2020

**Description:** 

PFO wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Lin	e Rebuild Proje	ct City/Cour	nty: Perry Co	ounty	Sampling Date:	: 06/04/2020
Applicant/Owner: AEP			'	State: OH	Sampling Point	w-bl-20200604-04
Investigator(s): SM, BL		Section, T	ownship, Rar	nge: S 20 T 17N R 15\	N	
Landform (hillside, terrace, etc.): hillslope			ocal relief (c	oncave, convex, none):	concave	
Slope (%): 15 Lat: 39.86369		Long:8	32.21107		Datum: NAD 83	
Soil Map Unit Name: WmE - Westmoreland silt loam, 2	.5 to 35 perce	ent slopes		NWI classit	fication: N/A	
Are climatic / hydrologic conditions on the site typical fo	or this time of	year?	Yes x	No (If no, exp	olain in Remarks.)	 )
Are Vegetation, Soil, or Hydrologys	significantly d	isturbed? A	re "Normal C	ircumstances" present?	Yes x 1	No
Are Vegetation, Soil, or Hydrologyr			f needed, ex	olain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showin	g samplin	g point lo	cations, transects,	important fea	atures, etc.
Hydrophytic Vegetation Present? Yes X No	)	Is the	Sampled Ar	ea		
			a Wetland?		No	
Wetland Hydrology Present? Yes X No						
Remarks:		<del>-</del>				
Sampling point for Wetland 049, within constructed dra draining west to intermittent Stream 048. Wetland fully		on hillside. Up	land drainag	e features drain in and c	ut of the wetland,	ultimately
VEGETATION – Use scientific names of pla	nts.					
T 01 1 (D) 1	Absolute	Dominant	Indicator	- · - ·		
Tree Stratum (Plot size: 30' ) 1.	% Cover	Species?	Status	Dominance Test wo		
2.				Number of Dominant Are OBL, FACW, or F	•	5 (A)
3.				Total Number of Dom		` ′
4.				Across All Strata:		6 (B)
5.				Percent of Dominant	Species That	
	=	Total Cover		Are OBL, FACW, or F	AC:	83.3% (A/B)
Sapling/Shrub Stratum (Plot size: 15')	10	.,	LIDI			
Rubus occidentalis     Ulmus rubra	<u>10</u>	Yes Yes	UPL FAC	Prevalence Index wo Total % Cover of		alv by:
3.		165	TAC	OBL species 3		33
4.				FACW species 2		40
5.				FAC species 1		39
	15 =	Total Cover		FACU species 7	x 4 =	28
Herb Stratum (Plot size: 5' )				UPL species 1	0 x 5 =	50
1. Carex lurida	30	Yes	OBL	Column Totals: 8	3 (A)	190 (B)
2. Parathelypteris noveboracensis	10	Yes	FAC	Prevalence Index	= B/A =2.2	29
3. Onoclea sensibilis	10	Yes	FACW			
4. <u>Dichanthelium clandestinum</u>	10	Yes	FACW	Hydrophytic Vegeta		
5. Juncus effusus	5	No No	FACU		Hydrophytic Vege	etation
6. Eupatorium perfoliatum	3	<u>No</u>	OBL	X 2 - Dominance Te		
7. 8.				X 3 - Prevalence Inc 4 - Morphological		
					s or on a separate	
10.				Problematic Hydr	•	<i>'</i>
10	68 =	Total Cover		<sup>1</sup> Indicators of hydric s		
Woody Vine Stratum (Plot size: 30' )				be present, unless dis		
1.				Hydrophytic		
2.				Vegetation		
		Total Cover		Present? Yes	X No	_
Remarks: (Include photo numbers here or on a separ	,					
Hydrophytic vegetation indicator present as dominanc	e test > 50%	. Dominant sp	ecies are OB	L, FACW, FAC and UPI	<del></del>	

SOIL Sampling Point: bl-20200604-

	cription: (Describe	to the dep				tor or o	onfirm the absence	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-1	2.5YR 5/2	100	_				Loamy/Clayey	silty clay loam
1-19	5GY 5/1	80	10Y 4/1	20	D	М	Loamy/Clayey	clay loam
			_					
								·
1	· <del></del>	. <del></del>					2	
	Concentration, D=Dep	letion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	l Grains		n: PL=Pore Lining, M=Matrix.
	Indicators:		Sandy Cla	wod Mat	riv (C1)			ors for Problematic Hydric Soils <sup>3</sup> :
Histoso	pipedon (A2)		Sandy Gle Sandy Re	-				ast Prairie Redox (A16)
	istic (A3)		Stripped N					-Manganese Masses (F12) I Parent Material (F21)
	en Sulfide (A4)		Dark Surfa	•	,,			y Shallow Dark Surface (F22)
	d Layers (A5)		Loamy Mu		eral (F1)			er (Explain in Remarks)
	uck (A10)		X Loamy Gle	-				er (Explain in Nemarks)
	d Below Dark Surface	e (A11)	X Depleted I	-				
	ark Surface (A12)	( )	Redox Da		•		<sup>3</sup> Indicato	ors of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted I		` '			land hydrology must be present,
	ucky Peat or Peat (S3	3)	Redox De		` '			ess disturbed or problematic.
Restrictive	Layer (if observed):		· <u> </u>		. ,			·
Type:								
Depth (i	nches):						Hydric Soil Presei	nt? Yes X No
Remarks:	<u> </u>							
	rm is revised from Mi	dwest Reai	onal Supplement \	ersion 2	2.0 to incl	ude the	NRCS Field Indicato	rs of Hydric Soils in the United States,
	, 2018. (https://www.n							, ,
Hydric soil i	ndicators present as I	ow chroma	/high value deplet	ed and g	leyed ma	trix.		
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
	icators (minimum of o	ne is requi	red; check all that	apply)			Seconda	ary Indicators (minimum of two required)
X Surface	Water (A1)		Water-Sta	ined Lea	ves (B9)		Surl	face Soil Cracks (B6)
X High Wa	ater Table (A2)		Aquatic Fa	auna (B1	3)		X Dra	inage Patterns (B10)
X Saturati	on (A3)		True Aqua	itic Plant	s (B14)		Dry-	-Season Water Table (C2)
Water N	larks (B1)		Hydrogen	Sulfide (	Odor (C1)		Cra	yfish Burrows (C8)
Sedime	nt Deposits (B2)		Oxidized F	Rhizosph	eres on L	iving R	oots (C3)Sati	uration Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence					nted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro			led Soil	· · · —	omorphic Position (D2)
	posits (B5)		Thin Muck				<u>X</u> FAC	C-Neutral Test (D5)
	ion Visible on Aerial I				` '			
	y Vegetated Concave	Surface (E	38) Other (Exp	plain in R	lemarks)			
Field Obse		.,		<b>5</b>				
	ter Present? Ye				nches): _			
Water Table					nches):		Wetlered Hudrels	anu Draganta Vas V Na
Saturation F		s X	No	Debtu (II	nches):	U	Wetland Hydrolo	ogy Present? Yes X No No
,	pillary fringe) ecorded Data (stream	nalide mo	nitoring well acris	l nhotos	nrevious	ineneo	tions) if available:	
Describe Ke	oorueu Dala (Silediii	yauye, IIIC	antoning well, aella	ii priotos	, previous	, maped	nionoj, ii available.	
Remarks:								
	nary and secondary h	ydrology ir	dicators present. I	Primary s	source of	hydrolo	gy is concentration o	f precipitation and surface runoff in
-				_	-	_		n outside of study area to NHD mapped
stream that	flows east to Turkey I	≺un that flo	ws north to Jonath	nan Cree	k that flov	<i>w</i> s east	to Moxahala Creek tl	hat flows north to Muskingum River, a

US Army Corps of Engineers

Project/Site: Crooksville-North Newark 138 kV Transmission	Line Rebuild Proje	ect City/Cou	unty: Perry C	ounty	Sampling [	Date: 06/0	04/2020
Applicant/Owner: AEP				State: OH	Sampling F	Point: upl-bl-	-20200604-07
Investigator(s): SM, BL		Section,	Township, Ra	nge: S 20 T 17N R	15W		
Landform (hillside, terrace, etc.): hillslope			Local relief (c	concave, convex, nor	ne): convex		
Slope (%): 15 Lat: 39.86368			•			83	
Soil Map Unit Name: WmE - Westmoreland silt loam	ı, 25 to 35 perc			NWI cla			
Are climatic / hydrologic conditions on the site typica	•		Yes x			rks.)	
Are Vegetation , Soil , or Hydrology		•		` Circumstances" prese			
Are Vegetation , Soil , or Hydrology	<del>_</del>			plain any answers in			_
SUMMARY OF FINDINGS – Attach site r			`		,	t features	, etc.
Hydrophytic Vegetation Present? Yes	No X	ls the	e Sampled Aı	rea			
	No X		in a Wetland?		No X		
	No X			<u> </u>	<u> </u>	_	
Remarks:							
Upland 051, point out to wetland 049. Located appr hydrology criteria not met.	oximately 5' we	est of wetland	boundary on	slope. Not a wetland	d point as hydropl	nytic vegeta	tion and
VEGETATION – Use scientific names of p	lants.						
·	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test	worksheet:		
1.				Number of Domin	•		/A\
2.				Are OBL, FACW,		2	_(A)
3. 4.				Total Number of I Across All Strata:	•	6	(B)
5.							<b>_</b> (D)
J		=Total Cover		Percent of Domin Are OBL, FACW,	•	33.3%	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	)	10101 0010		7	01.7.0.	00.07.	_(', ', ', ',
Rubus occidentalis	—' 15	Yes	UPL	Prevalence Inde	x worksheet:		
Betula alleghaniensis	5	Yes	FAC	Total % Cove		lultiply by:	
3.				OBL species	0 x 1 =		_
4.				FACW species	30 x 2 =	60	
5.				FAC species	10 x 3 =	30	_
	20	=Total Cover		FACU species	15 x 4 =	60	_
Herb Stratum (Plot size: 5' )				UPL species	60 x 5 =	300	_
1. Dichanthelium clandestinum	20	Yes	FACW	Column Totals:	115 (A)	450	(B)
2. Potentilla canadensis	20	Yes	UPL	Prevalence Ind	lex = B/A =	3.91	_
3. Achillea millefolium	15	Yes	FACU				
4. Leucanthemum vulgare	15	Yes	UPL	Hydrophytic Veg			
5. Agrostis gigantea	10	No	FACW		t for Hydrophytic	Vegetation	
6. Polystichum acrostichoides	10	No	UPL		e Test is >50%		
7. Panicum virgatum	5	No	FAC		e Index is ≤3.0 <sup>1</sup>		
8.					gical Adaptations <sup>1</sup> marks or on a sep		
9.							•
10		Tatal Cover			Hydrophytic Vege	• • •	,
Was du Vina Stratum (Diat siza: 30'	95	=Total Cover		<sup>1</sup> Indicators of hyd be present, unless			/ must
Woody Vine Stratum (Plot size: 30' 1.	_)			•	s disturbed of pro	blemauc.	
2.				Hydrophytic			
2.		=Total Cover		Vegetation Present?	res No	. X	
2		- Total Gover		Fiesent:			
Remarks: (Include photo numbers here or on a sep	arate sneet.)						

SOIL Sampling Point: -bl-20200604

	cription: (Describe t	o the dept				tor or c	onfirm the absen	ce of indicators.)
Depth	Matrix			x Featur		. 2	_	
(inches)	Color (moist)	<u></u> %	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 4/3	100					Loamy/Clayey	Silty Loam
4-17	2.5Y 6/2	80	2.5Y 5/6	20	С	M	Loamy/Clayey	Silty Clay Loam
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion RM=I	Reduced Matrix M	AS=Mas	ked Sand		<sup>2</sup> l ocat	ion: PL=Pore Lining, M=Matrix.
Hydric Soil		etion, ixivi–i	teduced Matrix, I	/IO-IVIAS	Keu Sanc	Oranis		itors for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	ved Mat	rix (S4)			past Prairie Redox (A16)
	pipedon (A2)		Sandy Red	-				on-Manganese Masses (F12)
	istic (A3)		Stripped M					ed Parent Material (F21)
	en Sulfide (A4)		Dark Surfa	•	,			ery Shallow Dark Surface (F22)
Stratifie	d Layers (A5)		Loamy Mu	cky Mine	eral (F1)		Ot	ther (Explain in Remarks)
2 cm Mu	uck (A10)		Loamy Gle	yed Mat	rix (F2)			
Deplete	d Below Dark Surface	(A11)	X Depleted N	/latrix (F	3)			
Thick Da	ark Surface (A12)		Redox Dar	k Surfac	e (F6)		<sup>3</sup> Indica	ators of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Depleted [	Oark Sur	face (F7)		We	etland hydrology must be present,
5 cm Mu	5 cm Mucky Peat or Peat (S3) ? Redox Depressions (F8)					ur	nless disturbed or problematic.	
Restrictive	Layer (if observed):							
Туре:			<u> </u>					
Depth (i	nches):		_				Hydric Soil Pres	ent? Yes <u>X</u> No
Remarks:								
								tors of Hydric Soils in the United States,
	2018. (https://www.n	-	_			s142p2_	_053171.pdf)	
Hydric soil ii	ndicator present as lo	w chroma/n	ign value depleted	ı maırıx.				
LIVEROLO								
HYDROLO								
	drology Indicators:							
	cators (minimum of or	ne is require			(50)			dary Indicators (minimum of two required)
	Water (A1)		Water-Stai					urface Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa	•	•			rainage Patterns (B10)
Saturati			True Aqua Hydrogen					ry-Season Water Table (C2)
	Marks (B1) nt Deposits (B2)		Oxidized F					rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9)
	posits (B3)		Presence			U	` '	unted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro		,	,		eomorphic Position (D2)
	posits (B5)		Thin Muck			104 0011		AC-Neutral Test (D5)
	on Visible on Aerial In	nagery (B7)			` '		<del></del> ··	10 11041141 1001 (20)
	y Vegetated Concave				, ,			
Field Obser			<u>, (                              </u>				T	
	ter Present? Yes	3	No X	Depth (i	nches):			
Water Table		<del></del>			nches):			
Saturation F					nches):		Wetland Hydro	ology Present? Yes No X
(includes ca	pillary fringe)				· –			<u> </u>
	ecorded Data (stream	gauge, mor	nitoring well, aeria	l photos	, previous	inspec	tions), if available:	
Remarks:								
No hydrolog	y indicators present.							

Site: Crooksville	e-North Newark 138 kV Transmission L	ine Rebuild Project	Date:	June 4, 2020
Wetland: w-	bl-20200604-04		Rater:	BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  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)  0.1 to <0.3 acres (0.04 to <0.12  x <0.1 acres (0.04ha) (0 pts)	a) (5 pts) (4 pts) ots) (2pts)		
12 12 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one  X WIDE. Buffers average 50m (1  MEDIUM. Buffers average 25m  NARROW. Buffers average 10  VERY NARROW. Buffers average 10  VERY LOW. Buffers average 10  VERY LOW. 2nd growth or old  X LOW. Old field (>10 years), shr  MODERATELY HIGH. Residen	e, do not double check) 64ft) or more around wetlar in to <50m (82 to <164ft) aro m to <25m (32ft to <82ft) a age <10m (<32ft) around w one or double check & aven er forest, prairie, savannah, rubland, young second grov	nd perimeter (7) bund wetland per buround wetland per buround perimete buround perimeter bur	erimeter (4) perimeter (1) r (0) tc. (7)
24 12 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake or  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average None or none apparent (12)  x Recovered (7)  Recovering (3)  Recent or no recovery (1)	pasture, row cropping, minir  3th sater (3) stream) (5) 3ch	D. Connectivity.  100 ye Betwee X Part of Part of Duration inum (select one o Regula X Seaso Seaso	Score all that apply.  Par floodplain (1)  In wetland/upland (e.g. forest), complex (1)  If riparian or upland corridor (1)  In dation/saturation.  In double check & average)  It to permanently inundated/saturated (4)  In ally inundated (2)  In ally saturated in upper 30cm (12in) (1)  In sturbances observed  In point source (nonstormwater)  In filling/grading  In road bed/RR track  In dredging
32 8 Subtotal Points	Metric 4. Habitat Alteration and Definition of the second	ible check and average.	C. Habitat altera  None of Recover Rec	other - strip mining  Ition. Score one or double check and average.  or none apparent (9) ered (6) ering (3) It or no recovery (1)  ed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient emrichment

ORAM v. 5.0 Field Form Quantitat	tive Rating			
Site: Crooksville-N	lorth Newark	138 kV Transmission Line Rebuild	Date:	June 4, 2020
Wetland: w-bl-	20200604-04		Rater:	BL, SM
				,
32 subtotal first pag	je			
32 0	Metric 5. Sp	ecial Wetlands. (max 10 pts.)		
Subtotal Points	Check all that ap	ply and score as indicated		
		Bog (10 pts)		
		Fen (10 pts)		
		Old Growth Forest (10 pts)		
		Mature forested wetland (5 pts)		
		Lake Erie coastal/tributary wetland-unrest		
		Lake Erie coastal/tributary wetland-restric		(5 pts)
		Lake Plain Sand Prairies (Oak Openings)	(10 pts)	
		Relict Wet Prairies (10 pts)		
		Known occurrence state/federal threatene	_	
		Significant migatory songbird/waterfowl hat Category 1 Wetland. See Question 1 of 0	_	
		Category I Welland. See Question For C	guaillative Mat	ing. (-10 pts)
36 4	Metric 6. Pla	ant Communities, interspersion,	microtopo	graphy. (max 20 pts.)
		getation Communities	от оторо,	g.up., j. (0 p.o.)
•		using 0 to 3 scale	Vegetation	n Community Cover Scale
	0	Aquatic bed		Al
	1	Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	0	Shrub		
	0	Forest	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
	0	Mudflats		or moderate quality, or comprises a digitilicant part but to or low quality
	0	Open water		Present and either comprises significant part of wetland's vegetation
		Other (list)	2	and is of moderate quality or comprises a small part and is of high
				quality
		lan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation
	Select only one	Turne (c)		and is of high quality
		High (5)	Marrativo	Description of Vegetation Quality
		Moderately high (4) Moderate (3)	Ivarrative	Low spp diversity and/or predominance of nonnative or disturbance
		Moderately low (2)	low	tolerant native species
		Low (1)		,
	x	None (0)		Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present,
	<u> </u>	` ,	moderate	and species diversity moderate to moderately high, but generally w/o
	6c. Coverage of	invasive plants.		presence of rare threatened or endangered spp
		ORAM long form for list. Add		A predominance of native species, with nonnative spp and/or
	or deduct points	for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp
		Extensive >75 % cover (-5)	ing.	diversity and often, but not always, the presence of rare, threatened, or
		Moderate 25-75% cover (-3)		endangered spp
		Sparse 5-25% cover (-1)		
		Nearly Absent <5% cover (0)	-	nd Open Water Class Quality
	X	Absent (1)	0	Absent <0.1 ha (0.2471 acres)
			1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopogra		3	High 4 ha (9.88 acres) or more
	Score all present	using 0 to 3 scale  Vegetated hummocks/tussocks	Microtono	ography Cover Scale
	0	Coarse woody debris >15 cm (6")	0	Absent
	0	Standing dead > 25 cm (10") dbh		
	0	Amphibian breeding pools	1	Present very small amounts or if more common of marginal quality
		1 1	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



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 049

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing North



## Wetland 049

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 049

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing South



## Wetland 049

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 049

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Line Re	build Project	City/County	Perry Cou	unty	Sampling Dat	te: 06/05	5/2020
Applicant/Owner: AEP				State: OH	Sampling Poi	nt: w-bl-20	200605-02
Investigator(s): SM, BL	5	Section, Tow	nship, Rang	ge: S 18 T 17N R	 15W		
Landform (hillside, terrace, etc.): swale		Loc	al relief (co	ncave, convex, non	e): concave		
Slope (%): 15 Lat: 39.87583		Long: -82.	22440		Datum: NAD 83	3	
Soil Map Unit Name: WmE- Westmoreland silt loam, 25 to	35 percent s			NWI cla			
Are climatic / hydrologic conditions on the site typical for thi			s x	No (If no,	·	; )	
Are Vegetation , Soil , or Hydrology signi	•			cumstances" prese			
Are Vegetation , Soil , or Hydrology natur				ain any answers in			-
SUMMARY OF FINDINGS – Attach site map s			•	•	•	eatures.	etc.
		Ι		·		outui oo,	, o.o.
Hydrophytic Vegetation Present? Yes X No No			mpled Are		/ N-		
Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No		within a	Wetland?	Yes_>	<u> </u>		
	_						
Remarks: Sampling point (w-bl-20200605-02) in for Wetland 050. We fully delineated.	etland is a hil	lside seep a	rea in fence	ed pasture, drains to	intermittent Strear	n 051. We	tland
<b>VEGETATION</b> – Use scientific names of plants.							
		minant In	dicator				
·	Cover Sp	ecies?	Status	Dominance Test	worksheet:		
1				Number of Domina Are OBL, FACW, of	•	2	<b>(</b>
		<del></del>			_		_(A)
				Total Number of D Across All Strata:	ominant Species	2	(B)
4				Percent of Domina	unt Species That		_(5)
-	=Tota	al Cover	-	Are OBL, FACW, of	•	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15' )					_		-`
1				Prevalence Index	worksheet:		
2.				Total % Cove	r of: Mult	tiply by:	_
3				OBL species	30 x 1 =	30	_
4				FACW species	80 x 2 =	160	-
5				FAC species	0 x 3 =	0	-
	= I ota	al Cover		FACU species	0 x 4 =	0	-
Herb Stratum (Plot size: 5' )  1. Poa palustris	30	Yes I	FACW	UPL species Column Totals:	0 x 5 =	190	(B)
2. Agrostis gigantea	30		ACW	Prevalence Inde		1.73	_(D)
3. Leersia virginica	20		FACW	Trovaloneo mac			-
4. Carex lupulina	15	No	OBL	Hydrophytic Vege	etation Indicators:		
5. Juncus effusus	10	No	OBL		for Hydrophytic Ve		
6. Eupatorium perfoliatum	5	No	OBL	X 2 - Dominance	e Test is >50%		
7.				X 3 - Prevalence	Index is ≤3.0 <sup>1</sup>		
8					cal Adaptations <sup>1</sup> (P		porting
9					arks or on a separ		
10	<del></del>				ydrophytic Vegetat		
Was du Vina Chatum (District	110 =Tota	al Cover		<sup>1</sup> Indicators of hydri			must
Woody Vine Stratum (Plot size: 30')			_	be present, unless	aisturbed or proble	ernatic.	
1				Hydrophytic			
	=Tot:	al Cover		Vegetation Present? Yes	es X No		
Remarks: (Include photo numbers here or on a separate s							
Hydrophytic vegetation indicator present as rapid test, don	,	s are OBL a	nd FACW.				

SOIL Sampling Point: bl-20200605-

Profile Des	cription: (Describe	to the dep	th needed to doc	ument th	ne indica	tor or c	confirm the absence	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR 3/2	90	10YR 4/3	10	<u>C</u>	M	Loamy/Clayey	silty clay loam
5-16	5Y 4/1	90	5Y 4/3	10	C	PL	Loamy/Clayey	silty clay loam
-								
	· <del></del>							
1			Dadwa d Matrice				21 4:	Di Dana Linin a M Matrix
	Concentration, D=Dep Indicators:	ietion, Rivi=	Reduced Matrix, I	vi5=ivias	ked Sand	Grains		: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils <sup>3</sup> :
Histoso			Sandy Gle	ved Mati	riy (S4)			st Prairie Redox (A16)
	pipedon (A2)		Sandy Re	-	ix (O+)			Manganese Masses (F12)
	istic (A3)		Stripped N		3)			Parent Material (F21)
	en Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)
	d Layers (A5)		Loamy Mu		eral (F1)			r (Explain in Remarks)
2 cm Mi	uck (A10)		Loamy Gle	eyed Mat	rix (F2)		_	
X Deplete	d Below Dark Surface	e (A11)	X Depleted I	Matrix (F	3)			
Thick D	ark Surface (A12)		X Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicator	rs of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted I	Dark Sur	face (F7)		wetla	and hydrology must be present,
5 cm Mi	ucky Peat or Peat (S3	3)	Redox De	pression	s (F8)		unles	ss disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (i	nches):						Hydric Soil Presen	t? Yes <u>X</u> No
Remarks:								
								s of Hydric Soils in the United States,
	, 2018. (https://www.n							
nyanc son i	ndicators present as i	ow chroma	mign value matrix	layers w	ilii redox	concen	trations in pore linings	•
HYDROL								
	drology Indicators:							
	icators (minimum of o	ne is requir						ry Indicators (minimum of two required)
	Water (A1)		Water-Sta		, ,			ace Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa	•	•			nage Patterns (B10)
X Saturati	, ,		True Aqua					Season Water Table (C2)
l <del></del>	Marks (B1)		Hydrogen					fish Burrows (C8)
	nt Deposits (B2) posits (B3)		X Oxidized F Presence	•		•	` '	ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro					morphic Position (D2)
	posits (B5)		Thin Muck			ica com	· <i>-</i>	Neutral Test (D5)
	ion Visible on Aerial Ir	magery (B7					<u> </u>	1100.001
	y Vegetated Concave	• • •	·		, ,			
Field Obse	rvations:		·					
	ter Present? Ye	s X	No	Depth (ii	nches):	1		
Water Table					nches):			
Saturation F	Present? Ye	s X	No		nches):		Wetland Hydrolog	gy Present? Yes X No
(includes ca	pillary fringe)							
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	al photos.	previous	inspec	tions), if available:	
Remarks:		la.d	all a de a	D.: 1		<b>.</b>		
								seepage observed and concentration of n to Jonathan Creek that flows east to
	reek that flows east to	-		.ฉ ฉมนเอ		0.166	an oor alat hows hold	. to conduidit ofton that hows east to

Project/Site: Crooksville-North Newark 138 kV Transmission Line Re	ebuild Project	City/Coun	ty: Perry Cou	unty	Samp	oling Date:	06/05	/2020
Applicant/Owner: AEP				State: C	H Samp	oling Point:	upl-bl-20	200605-03
Investigator(s): SM, BL		Section, To	wnship, Rang	ge: S 18 T 17N	R 15W			
Landform (hillside, terrace, etc.): hillslope		L	ocal relief (co	ncave, convex, r	one): convex			
Slope (%): 15 Lat: 39.87589		Long: -8	2.22443		Datum:	NAD 83		
Soil Map Unit Name: WmE- Westmoreland silt loam, 25 to	35 percent			NWI				
Are climatic / hydrologic conditions on the site typical for the		-	res x					
Are Vegetation, Soil, or Hydrologysign	•			cumstances" pre			2	
Are Vegetation, Soil, or Hydrology natu				ain any answers			<b></b>	•
SUMMARY OF FINDINGS – Attach site map				-	•		tures,	etc.
		1			•			
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No			Sampled Are a Wetland?		No	X		
Wetland Hydrology Present? Yes No		Within	a welland:	163				
Remarks:								
Upland 054 point out to Wetland 050, approximately 15' v criteria met	vest of wetlar	nd boundar	y, located in fe	enced pasture. N	lot a wetland բ	ooint as no	wetland	l
VEGETATION – Use scientific names of plants								
		ominant	Indicator	D	-4	_		
Tree Stratum (Plot size: 30' ) %	Cover S	pecies?	Status	Dominance Te				
2.				Number of Dom Are OBL, FACV	•	inat	0	(A)
3.				Total Number of	·	necies		(* ')
4.				Across All Strat		300100	2	(B)
5.				Percent of Dom	inant Species	That		
_	=To	tal Cover		Are OBL, FACV	V, or FAC:	0	.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')			<u> </u>					
1				Prevalence Inc				
2				Total % Co		Multiply		-
3				OBL species FACW species	0	x 1 =	0	-
5.				FAC species	10		30	•
5	=To	tal Cover	<del></del>	FACU species	58		232	•
Herb Stratum (Plot size: 5' )				UPL species	35		175	•
1. Bromus secalinus	30	Yes	UPL	Column Totals:	106 (/	۸) -	440	(B)
2. Andropogon virginicus	30	Yes	FACU	Prevalence I	ndex = B/A =	4.15	5	
3. Dactylis glomerata	10	No	FACU					
4. Bromus inermis	10	No	FACU	Hydrophytic V	_			
5. Xanthium strumarium	10	No	FAC		est for Hydrop		ation	
6. Daucus carota	5	No	UPL		nce Test is >5			
7. Solidago altissima	<u>5</u>	No No	FACU		nce Index is ≤ logical Adapta		ida aun	nortina
Eupatorium perfoliatum     Asclepias syriaca	3 –	No No	OBL FACU		logicai Adapta Remarks or on	•		porung
10.		INO	TACO		C Hydrophytic		,	in)
	106 =To	tal Cover		<sup>1</sup> Indicators of hy		•		,
Woody Vine Stratum (Plot size: 30')				be present, unle				
1				Hydrophytic				
2.				Vegetation				
	=To	tal Cover		Present?	Yes	No X	_	
Remarks: (Include photo numbers here or on a separate								
No hydrophytic vegetation indicators present, dominance	test < 50%,	prevalence	index > 3.0. d	lominant species	are FACU ar	nd UPL.		

SOIL Sampling Point: -bl-20200605

	cription: (Describe	to the dep				tor or o	confirm the absen	ce of indicators	s.)	
Depth	Matrix			x Featu		. 2	<b>-</b> .			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-5	10YR 4/2	100					Loamy/Clayey	_	silty clay loan	n
5-13	10YR 5/6	100					Loamy/Clayey		sandy silt	
							-			
<sup>1</sup> Type: C=C	Concentration, D=Dep	etion RM=	Reduced Matrix M	AS=Mas	ked Sand	Grains	<sup>2</sup> l ocat	tion: PL=Pore L	ining M=Matr	iy
	Indicators:	0.1011, 1.111	Ttoddood Maant, 1	no mac	nou ounc	- Oranic		ators for Proble		•
Histosol			Sandy Gle	yed Mat	trix (S4)			oast Prairie Red	-	
	pipedon (A2)		Sandy Red					on-Manganese I	Masses (F12)	
Black H	istic (A3)		Stripped M	latrix (S	6)		R	ed Parent Mater	ial (F21)	
Hydroge	en Sulfide (A4)		Dark Surfa	ice (S7)			Ve	ery Shallow Dar	k Surface (F22	2)
Stratifie	d Layers (A5)		Loamy Mu	cky Min	eral (F1)		O	ther (Explain in	Remarks)	
2 cm Mu	uck (A10)		Loamy Gle	eyed Ma	trix (F2)					
	d Below Dark Surface	(A11)	Depleted N		-		2			
	ark Surface (A12)		Redox Dai		` '			ators of hydroph		
	Mucky Mineral (S1)	,	Depleted [					etland hydrology		
_	ucky Peat or Peat (S3	)	Redox De	oression	is (F8)	1	ur	nless disturbed o	or problematic	
	Layer (if observed):									
Type:							Unidate Only Burn		V	N. V
Depth (i	ncnes):						Hydric Soil Pres	sent?	Yes	No_X
Version 8.2,	rm is revised from Mio, 2018. (https://www.n bil indicators present.	rcs.usda.go	ov/Internet/FSE_D	OCUME	NTS/nrcs	s142p2_	_053171.pdf)	tors of Hydric S	oils in the Unit	ed States,
HYDROLO			arrigit value maar							
_	drology Indicators: icators (minimum of o	no is roquir	od: chock all that	annly)			Socon	ndary Indicators	(minimum of t	wo required)
	Water (A1)	ile is requii	Water-Sta		aves (B9)			urface Soil Crac	•	wo required)
	ater Table (A2)		Aquatic Fa		, ,			rainage Patterns	` '	
Saturati	` '		True Aqua	`	,			ry-Season Wate	` '	
	Marks (B1)		Hydrogen			)		rayfish Burrows		
	nt Deposits (B2)		Oxidized F	Rhizospł	neres on L	iving R	oots (C3)	aturation Visible	on Aerial Ima	gery (C9)
Drift De	posits (B3)		Presence	of Redu	ced Iron (	C4)	St	tunted or Stress	ed Plants (D1)	)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	ction in Til	led Soil	ls (C6) G	eomorphic Posit	tion (D2)	
	posits (B5)		Thin Muck				F/	AC-Neutral Test	(D5)	
	ion Visible on Aerial Ir	0 , (	, <u>—</u>							
	y Vegetated Concave	Surface (E	38) Other (Exp	olain in F	Remarks)		1			
Field Obse			N. V	D 11 11						
	ter Present? Ye				inches): _					
Water Table Saturation F		s			inches):		Wetland Hydro	ology Brocont?	Voc	No V
		<u> </u>	NO A	Deptii (	inches):		welland nyurc	ology Present?	Yes	No_X
	pillary fringe) ecorded Data (stream	gauge mo	nitoring well aeria	l photos	s. previous	sinsner	tions), if available			
2555125110	Data (off odill	J			, p. 511000	орос	,, " available.			
Remarks:										
No hydrolog	y indicators present.									

Site: Crooksville	-North Newark 138 kV Transmission L	ine Rebuild Project	<b>Date:</b> June 5, 2020			
Wetland: w-b	ol-20200605-02		Rater:	BL, SM		
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (  3 to <10 acres (1.2 to <4ha) (3 pt)  0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12 to <0.12 acres (0.04 to <0.12 to <0.13 acres (0.04 to <0.12	na) (5 pts) (4 pts) pts) ) (2pts)				
1 1 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one WIDE. Buffers average 50m (1 MEDIUM. Buffers average 25m NARROW. Buffers average 10 x VERY NARROW. Buffers average 10 yery narrounding land use (select of the select of th	e, do not double check) 64ft) or more around wetlen to <50m (82 to <164ft) a time to <25m (32ft to <82ft) age <10m (<32ft) around to come or double check & average forest, prairie, savanna rubland, young second gratial, fenced pasture, park,	and perimeter (7 round wetland perimeter (7 around wetland wetland perimeter (8 around wetland perimeter (9 around wetland perimeter (7 around wetland perimeter (7 around wetland perimeter (7 around wetland perimeter (7 around wetland perimeter (9 around per	erimeter (4) perimeter (1) er (0) etc. (7) lage, new fallow field. (3)		
17 16 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake or  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average None or none apparent (12)  x Recovered (7)  Recovering (3)  Recent or no recovery (1)	vater (3) r stream) (5) 3 s.	x Between Part of Part	Score all that apply.  Par floodplain (1)  In en stream/lake and other human use (1)  If wetland/upland (e.g. forest), complex (1)  If riparian or upland corridor (1)  In dation/saturation.  In double check & average)  It o permanently inundated/saturated (4)  In ally inundated/saturated (3)  In ally inundated (2)  In ally saturated in upper 30cm (12in) (1)  In sturbances observed  I point source (nonstormwater)  I filling/grading  I road bed/RR track  I dredging  Out I other- list		
25 8 Subtotal Points	Metric 4. Habitat Alteration and Do  4a. Substrate disturbance. Score one or dout  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  x Poor to fair (2)  Poor (1)	uble check and average.	c. Habitat altera None of Recov x Recov Recen ances observi	tion. Score one or double check and average. or none apparent (9) ered (6) ering (3) t or no recovery (1)		

25 subtotal this page

STAIN V. 5.0 Field Form Quantitative Nating						
Site: Crooksville-North N	lewark 138 kV Transmission Line Rebu	uile Date:	June 5, 2020			
Wetland: w-bl-20200	605-02	Rater:	BL, SM			
		•				
25 subtotal first page						
25 0 Metric	5. Special Wetlands. (max 10 pts.)					
Subtotal Points <u>Check a</u>	Il that apply and score as indicated					
	Bog (10 pts)					
	Fen (10 pts)					
	Old Growth Forest (10 pts)					
	Mature forested wetland (5 pts)					
	Lake Erie coastal/tributary wetland-un	restricted hydrol	ogy (10 pts)			
	Lake Erie coastal/tributary wetland-res	stricted hydrolog	y (5 pts)			
	Lake Plain Sand Prairies (Oak Openir	ngs) (10 pts)				
	Relict Wet Prairies (10 pts)					
	Known occurrence state/federal threat	_				
	Significant migatory songbird/waterfov					
	Category 1 Wetland. See Question 1	of Qualitative Ra	ating. (-10 pts)			
24 Matria	C Blant Communities interespond		amonhu (may 20 mta )			
	6. Plant Communities, interspersion	n, microtop	ograpny. (max 20 pts.)			
·	tland Vegetation Communities	Vegetetie	n Community Coyor Sools			
Score a	I present using 0 to 3 scale	vegetatio	n Community Cover Scale			
	0 Aquatic bed 2 Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area			
	2 Emergent 0 Shrub					
	0 Forest	1	Present and either comprises small part of wetland's vegetation and is			
	0 Mudflats	'	of moderate quality, or comprises a significant part but is of low quality			
	0 Open water		Present and either comprises significant part of watland's vagatation			
	Other (list)	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			
	Cutor (not)	_	quality			
6b. Hor	izontal (plan view) interspersion	_	Present and comprises significant part, or more, of wetland's vegetation			
Select		3	and is of high quality			
	High (5)					
	Moderately high (4)	Narrative	Description of Vegetation Quality			
	Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance			
	Moderately low (2)	IOW	tolerant native species			
	Low (1)		Native spp are dominant component of the vegetation, although			
	x None (0)	moderate	nonnative and/or disturbance tolerant native spp can also be present,			
		ouorato	and species diversity moderate to moderately high, but generally w/o			
	rerage of invasive plants.		presence of rare threatened or endangered spp			
	Table 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or			
Add of C	leduct points for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp			
	Extensive >75 % cover (-5)		diversity and often, but not always, the presence of rare, threatened, or endangered spp			
	Moderate 25-75% cover (-3)		oridangorod opp			
	Sparse 5-25% cover (-1)	Mudfloto	ad Open Water Class Quality			
	Nearly Absent <5% cover (0)		nd Open Water Class Quality			
	x Absent (1)	0	Absent <0.1 ha (0.2471 acres)			
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)			
Cal. Adia	undan navan bu	3	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres) High 4 ha (9.88 acres) or more			
	rotopography	3	Tilgit 4 fla (9.00 acres) of more			
Score a	I present using 0 to 3 scale  2 Vegetated hummocks/tussocks	Microtono	ography Cover Scale			
	Vegetated nummocks/tussocks     Coarse woody debris >15 cm (6")	0	Absent			
	0 Standing dead > 25 cm (10") dbh		, woon			
	0 Amphibian breeding pools	1	Present very small amounts or if more common of marginal quality			
	, unprincial procuring pools		Present in moderate amounts, but not of highest quality or in small			
		2	amounts of highest quality			
		_				
		3	Present in moderate or greater amounts and of highest quality			



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 050

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing North



## Wetland 050

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 050

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing South



## Wetland 050

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing West





# PHOTOGRAPHIC RECORD

**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 050

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission L	∟in <u>e Rebuild Proj</u> ∈	ect_ City/Cou	inty: Perry C	ounty	Sampling Date:	06/05/2020
Applicant/Owner: AEP		<del>-</del>		State: OH	Sampling Point:	w-bl-20200605-03
Investigator(s): SM, BL		Section, 7	Гownship, Ra	nge: S 18 T 17N R 15	W	
Landform (hillside, terrace, etc.): terrace			Local relief (c	concave, convex, none):	concave	
Slope (%): 2 Lat: 39.87621		Long: -	-82.22411		Datum: NAD83	
Soil Map Unit Name: WmE- Westmoreland silt loam,	, 25 to 35 perc			NWI classi	ification: N/A	
Are climatic / hydrologic conditions on the site typical	•		Yes x			
Are Vegetation , Soil , or Hydrology		•		Circumstances" present?		
Are Vegetation, Soil, or Hydrology	_			plain any answers in Re		
SUMMARY OF FINDINGS – Attach site m	<del>_</del> '				•	res, etc.
Hydrophytic Vegetation Present? Yes X	No	Is the	e Sampled A	roa		
	No		n a Wetland?		No	
	No			·		
Remarks:						
Sampling point (w-bl-20200605-03) in for PEM Wetla topography, extends to north outside study area.	and 051. Wetla	and located or	n LDB of inter	rmittent stream 051. We	tland boundary deline	ated by
VEGETATION – Use scientific names of pl	 lants.					
71011111111111111111111111111111111111	Absolute	Dominant	Indicator	1		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wo	rksheet:	
1.				Number of Dominant	•	443
2.				Are OBL, FACW, or F		(A)
3.				Total Number of Dom	•	(D)
4				Across All Strata:	3	B (B)
5	,	=Total Cover		Percent of Dominant Are OBL, FACW, or F	•	.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	1	- Total Cover		Are Obl., FACTV, O	-AC: 100.	<u>0%</u> (AD)
	-'			Prevalence Index w	orksheet:	
2.				Total % Cover o		ıv.
3.					$\frac{15}{x} = \frac{15}{x} = 15$	<u> </u>
4.					18 x 2 = 96	6
5.				FAC species 1	10 x 3 = 30	0
	·	=Total Cover		FACU species 2	25 x 4 = 10	0
Herb Stratum (Plot size: 5' )	<del></del>			· · ·	0 x 5 = 0	)
1. Poa palustris	30	Yes	FACW	Column Totals: 9	98 (A) <u>24</u>	<u>I1</u> (B)
2. Carex lupulina	15	Yes	OBL	Prevalence Index	= B/A = <u>2.46</u>	
3. Agrostis gigantea	15	Yes	FACW			
4. Bromus inermis	10	No No	FACU	Hydrophytic Vegeta		
5. Xanthium strumarium	10	No No	FAC		r Hydrophytic Vegetat	ion
6. Schedonorus arundinaceus		No No	FACU	X 2 - Dominance To X 3 - Prevalence In		
7. Dactylis glomerata 8. Packera aurea	_ 5	No No	FACU FACW		idex is ≤3.01 il Adaptations¹ (Provid	- aupporting
9.		INO	FACTV	· · ·	il Adaptations (Provid ks or on a separate sh	
10.					rophytic Vegetation <sup>1</sup> (	,
	98 =	=Total Cover			soil and wetland hydro	
Woody Vine Stratum (Plot size: 30'	)				sturbed or problemation	
1.	<u> </u>			Hydrophytic		
2.	·			Vegetation		
	=	=Total Cover		Present? Yes	No	
Remarks: (Include photo numbers here or on a sepa	,					
hydrophytic vegetation indicator present as dominan	ice test > 50%,	, dominant sp	ecies are OB	L and FACW.		

SOIL Sampling Point: bl-20200605-

Profile Des	cription: (Describe	to the dept	h needed to doc	ument th	ne indica	tor or c	confirm the ab	sence of i	ndicators.)		
Depth	Matrix		Redo	x Featur							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u> </u>		Remarks	
0-7	10YR 4/3	70	10YR 4/2	30	С	М	Loamy/Cla	yey	silt	y clay loam	
7-14	5Y 4/2	90	5Y 3/1	_ 5	D	M	Loamy/Cla	iyey	silt	y clay loam	
			5Y 4/4	5		PL					
			-								
ļ											
	concentration, D=Dep	etion, RM=	Reduced Matrix,	MS=Mas	ked Sand	d Grains			L=Pore Linin		
_	Indicators:						In		or Problema	-	oils°:
— Histosol			Sandy Gle	-			_		rairie Redox		
	pipedon (A2)		Sandy Re				_		nganese Mas		
	istic (A3)		Stripped N	•	5)		_		ent Material (	, ,	
	en Sulfide (A4)		Dark Surfa		1 (54)		_		allow Dark Si	, ,	
	d Layers (A5)		Loamy Mu	-				Other (E	xplain in Rer	narks)	
	uck (A10) d Rolow Dark Surface	(//11)	Loamy Glo	-							
	d Below Dark Surface ark Surface (A12)	: (A11)	Redox Da	•	•		31,	adioatora a	f hydrophytic	vogetation	and
	Mucky Mineral (S1)		Depleted		` '		II.		hydrology mi	•	
	ucky Peat or Peat (S3	)	Redox De		` '				isturbed or p	•	π,
		<i>,</i>	RCGOX DC	pression	3 (1 0)			4111000 4	lotarbed or p	TODICITIANO.	
	Layer (if observed):										
Type: Depth (i	nchos):		_				Hydric Soil F	Drosont?	,	Yes X	No
. `			_				Hydric 30ii i	rieseiit:		169 /	NO
Remarks:	is new is and forces Mi	durant Danie		·/ 0	. 0 4- :		NDCC Field In	-1:4 <b>6</b>	Hardwin Chila	: 4h - 1 lu:4	l Ct-t
	rm is revised from Mic 2018. (https://www.n							dicators of	nyunc sons	in the Onited	i States,
	ndicator present as lo							ons.			
HYDROLO	OGY										
	rdrology Indicators: cators (minimum of o	no is roquir	od: chock all that	annly)			9/	ocondany li	ndicators (mi	nimum of two	roquirod)
	Water (A1)	ne is require	Water-Sta		ves (RQ)				Soil Cracks (		<u>J required)</u>
	ater Table (A2)		Aquatic Fa						e Patterns (B		
Saturati	, ,		True Aqua	•	•				son Water Ta	-	
	larks (B1)		Hydrogen			1			Burrows (C8		
	nt Deposits (B2)		x Oxidized I				oots (C3)		on Visible on	,	ery (C9)
X Drift De			Presence			_	. ,		or Stressed I	-	, ,
	at or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soil	ls (C6) X	Geomor	phic Position	(D2)	
Iron Dep	posits (B5)		Thin Muck	Surface	(C7)		×	FAC-Ne	utral Test (D	5)	
Inundati	on Visible on Aerial Ir	magery (B7)	Gauge or	Well Data	a (D9)			<del></del>			
Sparsel	y Vegetated Concave	Surface (B	8) Other (Ex	plain in R	emarks)						
Field Obse	rvations:										
Surface Wa	ter Present? Ye	s	No X	Depth (ii	nches):						
Water Table	Present? Ye	s	No X	Depth (ii	nches):		1				
Saturation F	Present? Ye	s	No X	Depth (ii	nches):		Wetland H	ydrology l	Present?	Yes X	No
<b>—</b> '	pillary fringe)						1				
Describe Re	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Danisani											
Remarks:	nary and secondary h	vdrology in	licatore present	Priman, a	ources o	f hydrol	ony are ground	lwater soo	nade obsonía	ad and conce	entration of
	nary and secondary n and surface runoff in										
	reek that flows east to	-									

Project/Site: Crooksville-North Newark 138 kV Transmission	Line Rebuild Proje	ct City/Cou	inty: Perry C	ounty	Sampling Date:	06/05/2020			
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-bl-20200605-04			
Investigator(s): SM, BL		Section, T	Township, Rai	nge: S 18 T 17N R 15V	N				
Landform (hillside, terrace, etc.): terrace			Local relief (c	concave, convex, none):	none				
Slope (%): 2 Lat: 39.87628		Long: -	82.22417		Datum: NAD 83				
Soil Map Unit Name: WmE- Westmoreland silt loam	, 25 to 35 perce	ent slopes		NWI classif	ication: N/A				
Are climatic / hydrologic conditions on the site typical	for this time of	year?	Yes x	No (If no, exp	olain in Remarks.)				
Are Vegetation, Soil, or Hydrology	significantly d	isturbed? A	Are "Normal C	Circumstances" present?	Yes x N	lo			
Are Vegetation , Soil , or Hydrology	_ _naturally prob	lematic? (	If needed, ex	plain any answers in Rer	marks.)	' <u></u> '			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled A	rea					
	No X		n a Wetland?		No_X_				
	No X								
Remarks:		•							
Upland 055 point out to Wetland 051, approximately	15' west of we	tland bounda	ary on terrace	. Not a wetland point as	no wetland criteria	met.			
VEGETATION - Harris (Consequence)	1 1 .								
<b>VEGETATION</b> – Use scientific names of p	Absolute	Dominant	Indicator						
Tree Stratum (Plot size: 30' )	% Cover	Species?	Status	Dominance Test wor	rksheet:				
1. Prunus serotina	20	Yes	FACU	Number of Dominant	Species That				
2. Juglans nigra	15	Yes	FACU	Are OBL, FACW, or F	AC:	1 (A)			
3.				Total Number of Dom	inant Species				
4				Across All Strata:		5 (B)			
5	35 =	Total Cover		Percent of Dominant S Are OBL, FACW, or F	•	.0.0% (A/B)			
Sapling/Shrub Stratum (Plot size: 15'	)	- Total Covel		Ale OBL, FACW, OFF	AC	0.0% (A/B)			
1. Cornus florida	_′ 5	Yes	FACU	Prevalence Index wo	orksheet:				
2.				Total % Cover of	f: Multiply	y by:			
3.				OBL species 0	) x 1 =	0			
4				FACW species 0		0			
5				FAC species 20		60			
Harb Stratum (Diataiza, El.)	5_=	Total Cover		FACU species 12 UPL species 0		480 0			
Herb Stratum (Plot size: 5' )   1. Dactylis glomerata	70	Yes	FACU	UPL species 0 Column Totals: 14		540 (B)			
2. Xanthium strumarium	20	Yes	FAC	Prevalence Index	` ′				
3. Bromus inermis	10	No	FACU						
4.				Hydrophytic Vegetat	tion Indicators:				
5.				1 - Rapid Test for	Hydrophytic Vege	tation			
6				2 - Dominance Te	est is >50%				
7				3 - Prevalence Inc					
8					Adaptations <sup>1</sup> (Prov s or on a separate)				
9.									
10	100 =	Total Cover			ophytic Vegetation				
Woody Vine Stratum (Plot size: 30'	)	Total Gover		<sup>1</sup> Indicators of hydric so be present, unless dis					
1.	_′			Hydrophytic					
2.				Vegetation					
	=	Total Cover		Present? Yes	No X				
Remarks: (Include photo numbers here or on a sep	,								
No hydrophytic vegetation indicators present, domir	ance test < 50°	%, prevalence	e index >3.0.	Dominant species are F	AC and FACU				

SOIL Sampling Point: -bl-20200605

		to the depti				tor or c	onfirm the absence	of indicators.)	
Depth	Matrix			x Featu		. 2	<b>-</b> .		
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-17	10YR 4/2	100					Loamy/Clayey	silty to sandy clay	loam
								-	
1 <sub>Type: C=C</sub>	oncentration, D=Dep	otion PM-I	Poducod Matrix		kod San	d Grains	<sup>2</sup> L ocation	n: PL=Pore Lining, M=Matri	
Hydric Soil		elion, ixivi–i	teduced Matrix,	IVIO-IVIAS	okeu Sain	J Grains		rs for Problematic Hydric	
Histosol			Sandy Gle	eved Mat	rix (S4)			st Prairie Redox (A16)	
	pipedon (A2)		Sandy Re	-				-Manganese Masses (F12)	
Black Hi			Stripped N					Parent Material (F21)	
	n Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22	2)
Stratified	Layers (A5)		Loamy Mu	ucky Min	eral (F1)		Othe	er (Explain in Remarks)	
2 cm Mu	ick (A10)		Loamy Gl	eyed Ma	trix (F2)				
Depleted	d Below Dark Surface	(A11)	Depleted	Matrix (F	3)				
Thick Da	ark Surface (A12)		Redox Da	rk Surfa	ce (F6)		<sup>3</sup> Indicato	rs of hydrophytic vegetation	and
Sandy M	lucky Mineral (S1)		Depleted	Dark Sur	face (F7)		wetl	and hydrology must be pres	ent,
5 cm Mu	icky Peat or Peat (S3	)	Redox De	pression	s (F8)		unle	ss disturbed or problematic.	
Restrictive	Layer (if observed):								
Type:			_						
Depth (ir	nches):		<u> </u>				Hydric Soil Preser	nt? Yes	No X
Remarks:									
								rs of Hydric Soils in the Unit	ed States,
	2018. (https://www.n il indicators present.								
			g ra.asaa						
HYDROLO	)GY								
_	drology Indicators:	no io roguire	ad, abaal, all that	annlu)			Cananda	or Indicators (minimum of t	uo roquirod)
-	cators (minimum of o Water (A1)	ne is require	Water-Sta		was (BO)			ary Indicators (minimum of to ace Soil Cracks (B6)	<u>wo requirea)</u>
	iter Table (A2)		Aquatic F		, ,			nage Patterns (B10)	
Saturation			True Aqua	•	,			Season Water Table (C2)	
	arks (B1)		Hydrogen		, ,	)		rfish Burrows (C8)	
	nt Deposits (B2)		Oxidized I					ration Visible on Aerial Ima	gery (C9)
	posits (B3)		Presence	•		•	` ' —	ited or Stressed Plants (D1)	,
	nt or Crust (B4)		Recent Iro	n Reduc	tion in Ti	lled Soil		morphic Position (D2)	
Iron Dep	osits (B5)		Thin Muck	Surface	e (C7)		FAC	-Neutral Test (D5)	
Inundation	on Visible on Aerial Ir	nagery (B7)	Gauge or	Well Dat	ta (D9)				
Sparsely	Vegetated Concave	Surface (B	3) Other (Ex	plain in F	Remarks)				
Field Obser	vations:								
Surface Wat	er Present? Ye	s	No X	Depth (i	nches):				
Water Table	Present? Ye	s	No <u>X</u>	Depth (i	nches):				
Saturation P	resent? Ye	s	No X	Depth (i	nches):		Wetland Hydrolo	gy Present? Yes	No X
(includes ca									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Domerke									
Remarks:	y indicators present.								
, to rigarolog	, maioatoro prodont.								
1									

Site: Crooksville	e-North Newark 138 kV Transmission L	ine Rebuild Project	Date:	June 5, 2020
Wetland: w-	bl-20200605-03		Rater:	BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h.  10 to <25 acres (4 to <10.1ha) (  3 to <10 acres (1.2 to <4ha) (3 pt)  0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12 to <0.12 to <1.2ha)  0.1 to <0.3 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts) (ha) (1 pt)		
3 3 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one WIDE. Buffers average 50m (1) MEDIUM. Buffers average 25m X NARROW. Buffers average 10i VERY NARROW. Buffers average  2b. Intensity of surrounding land use (select of the select of the	e, do not double check) 64ft) or more around wetlant to <50m (82 to <164ft) ard in to <25m (32ft to <82ft) age <10m (<32ft) around we come or double check & average forest, prairie, savannah rubland, young second grotatal, fenced pasture, park,	nd perimeter (7) pound wetland per around wetland p vetland perimeter vage) , wildlife area, etc wth forest. (5) conservation tilla	c. (7) ge, new fallow field. (3)
24 21 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  X Seasonal/Intermittent surface w Perennial surface water (lake or  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  X <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average  X None or none apparent (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)	vater (3) r stream) (5)  3d	100 yea  X Between Part of v X Part of r  Duration inunda (select one or of the context of the context one or of the context one of the context	double check & average) o permanently inundated/saturated (4) by inundated/saturated (3) ally inundated (2) ally saturated in upper 30cm (12in) (1) turbances observed
36 12 Subtotal Points	Metric 4. Habitat Alteration and Do  4a. Substrate disturbance. Score one or dou  X None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  X Poor to fair (2)  Poor (1)	uble check and average.	. Habitat alteration None or X Recover Recover Recent of the Control of the Contr	ring (3) or no recovery (1)

Sito: Crookavilla	North November	138 kV Transmission Line Rebuil	Dato:	luno 5, 2020
			1	June 5, 2020
Wetland: w-bl	-20200605-03		Rater:	BL, SM
36 subtotal first pa	ige			
36 0	Metric 5. Spe	ecial Wetlands. (max 10 pts.)		
Subtotal Points	-	ply and score as indicated		
		Bog (10 pts)		
		Fen (10 pts)		
		Old Growth Forest (10 pts)		
		Mature forested wetland (5 pts)		
		Lake Erie coastal/tributary wetland-unre	•	
		Lake Erie coastal/tributary wetland-restri		y (5 pts)
		Lake Plain Sand Prairies (Oak Openings	s) (10 pts)	
		Relict Wet Prairies (10 pts)		
		Known occurrence state/federal threater	_	
	<u> </u>	Significant migatory songbird/waterfowl	_	
		Category 1 Wetland. See Question 1 of	Qualitative Ré	uing. (-10 μω)
41 5 Subtotal Points		ant Communities, interspersion	, microtope	ography. (max 20 pts.)
5.110		t using 0 to 3 scale	Vegetatio	n Community Cover Scale
		Aquatic bed	0	
	1	Emergent	U	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
		Shrub		Present and either comprises small part of wetland's vegetation and is
		Forest	1	of moderate quality, or comprises a significant part but is of low quality
		Mudflats		
		Open water	_	Present and either comprises significant part of wetland's vegetation
		Other (list)	2	and is of moderate quality or comprises a small part and is of high quality
		plan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation
	Select only one	Tuigh (5)		and is of high quality
		High (5)  Moderately high (4)	Narrativo	Description of Vegetation Quality
		Moderate (3)		Low spp diversity and/or predominance of nonnative or disturbance
	-	Moderately low (2)	low	tolerant native species
		Low (1)		Native spp are dominant component of the vegetation, although
	X 6c. Coverage of	None (0)	moderate	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 threatened or endangered spp
		ORAM long form for list.		A predominance of native species, with nonnative spp and/or
	Add or deduct po	pints for coverage	hiah	disturbance tolerant native spe absent or virtually absent, and high spp
		Extensive >75 % cover (-5)	high	diversity and often, but not always, the presence of rare, threatened, or
		Moderate 25-75% cover (-3)		endangered spp
		Sparse 5-25% cover (-1)	M 100 ·	ad Onen Meter Oler Co. 114
		Nearly Absent <5% cover (0)		nd Open Water Class Quality
	X	Absent (1)	0	Absent <0.1 ha (0.2471 acres)
			1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
	6d 14:- 1	anh.	2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopogra		3	High 4 ha (9.88 acres) or more
	Score all present	t using 0 to 3 scale  Vegetated hummocks/tussocks	Microtopo	graphy Cover Scale
	1	Coarse woody debris >15 cm (6")	0	Absent
	0	Standing dead > 25 cm (10") dbh		
	1	Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 051

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing North



## Wetland 051

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 051

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing South



## Wetland 051

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing West





WEILAN

**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 051

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Lin	e Rebuild Proje	ect City/Cou	unty: Perry C	ounty	Sampling Date:	06/05/2020			
Applicant/Owner: AEP				State: OH	Sampling Point:	w-bl-20200605-04			
Investigator(s): SM, BL		Section,	Township, Rai	nge: S 18 T 17N R 15\	V				
Landform (hillside, terrace, etc.): shoulder			Local relief (c	concave, convex, none):	concave				
Slope (%): 1 Lat: 39.87691		Long:	-82.22559		Datum: NAD 83				
Soil Map Unit Name: GwD - Guernsey-Westmoreland	silt loams, 15	to 25 percer	nt slopes	NWI classif	ication: N/A				
Are climatic / hydrologic conditions on the site typical fo	or this time of	f year?	Yes x	No (If no, exp	olain in Remarks.)				
Are Vegetation , Soil x , or Hydrology s	significantly o	listurbed?	Are "Normal C	Circumstances" present?	Yes x N	0			
Are Vegetation, Soil, or Hydrologyr	naturally prob	olematic?	(If needed, ex	plain any answers in Rei	marks.)				
SUMMARY OF FINDINGS – Attach site ma			ng point lo	cations, transects,	important fea	tures, etc.			
	)		e Sampled Ar in a Wetland?		No				
Wetland Hydrology Present? Yes X No									
Remarks: Sampling point (w-bl-20200605-04) in to PEM Wetland 052. Wetland located on old hillside field drive (possibly disturbed soils). Wetland is fully delineated and potentially isolated.  VEGETATION – Use scientific names of plants.									
VEGETATION COC SCIENTING HARMES OF PICE	Absolute	Dominant	Indicator						
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor	ksheet:				
1				Number of Dominant Are OBL, FACW, or F	•	3 (A)			
3. 4.				Total Number of Dom Across All Strata:	inant Species	3 (B)			
5.				Percent of Dominant S	——Species That	`` ,			
Sapling/Shrub Stratum (Plot size: 15' )		Total Cover		Are OBL, FACW, or F	•	00.0% (A/B)			
1.				Prevalence Index wo	orksheet:				
2.				Total % Cover of	: Multipl	y by:			
3				OBL species 5		50			
4				FACW species 5		106			
5		T-4-1 0		FAC species 0		0			
Herb Stratum (Plot size: 5' )		=Total Cover		FACU species 10		0			
1. Juncus effusus	50	Yes	OBL	Column Totals: 11		196 (B)			
2. Poa palustris	20	Yes	FACW	Prevalence Index					
3. Leersia virginica	20	Yes	FACW						
4. Cirsium arvense	10	No	FACU	Hydrophytic Vegetat	ion Indicators:				
5. Agrostis gigantea	10	No	FACW	X 1 - Rapid Test for		tation			
6. Packera aurea	3	No	FACW	X 2 - Dominance Te	est is >50%				
7				X 3 - Prevalence Inc	dex is ≤3.0 <sup>1</sup>				
8					Adaptations <sup>1</sup> (Prov				
9					s or on a separate	. *			
10					ophytic Vegetation				
Woody Vine Stratum (Plot size: 30' )	113	=Total Cover		<sup>1</sup> Indicators of hydric some be present, unless dis					
1				Hydrophytic					
2				Vegetation					
	:	=Total Cover		Present? Yes	No	_			
Remarks: (Include photo numbers here or on a separ Hydrophytic vegetation indicators present as rapid tes		species are C	BL and FACV	٧.					

SOIL Sampling Point: bl-20200605-

		to the dep				tor or o	confirm the absence of	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 4/1	95	10YR 4/6	5	C	PL	Loamy/Clayey	silty clay loam
4-16	2.5Y 5/1	80	2.5Y 5/6	20	С	PL/M	Loamy/Clayey	silty clay loam
-	·							
1					. —		2	
	Concentration, D=Dep	letion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	Grains		PL=Pore Lining, M=Matrix.
	Indicators:		Sandy Cla	wad Mat	riv (C.1)			s for Problematic Hydric Soils <sup>3</sup> :
Histoso			Sandy Gle	-				t Prairie Redox (A16) ∕Ianganese Masses (F12)
	pipedon (A2)		Sandy Red					
	istic (A3) en Sulfide (A4)		Stripped M Dark Surfa	•	)			Parent Material (F21) Shallow Dark Surface (F22)
	d Layers (A5)		Loamy Mu		oral (E1)			(Explain in Remarks)
				-			Other	(Explain in Remarks)
	uck (A10) d Below Dark Surface	(//11)	Loamy Gle X Depleted I	-				
		; (A11)					3Indicators	s of hydrophytic vegetation and
	Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)						nd hydrology must be present,	
	ucky Peat or Peat (S3	)	X Redox De					s disturbed or problematic.
		•		pression	3 (1 0)	I	411100	e dictarbed or problemade.
	Layer (if observed):							
Type: Depth (	inchos):						Hydric Soil Present	? Yes X No
			_				nyunc son Fresent	: 1es <u>\</u> No
Remarks:	to to I for Mt	de contra de la contra del la contra de la contra del la contra del la contra de la contra del la co		/! <i>(</i>	0.04 !	41	NDOO Field by die of one	of the daily On the tankle of the decrease
	rm is revised from Mic , 2018. (https://www.n							of Hydric Soils in the United States,
							area, with required red	lox concentrations
.,			g				,	
HYDROLO	)CV							
r								
	drology Indicators:							
	icators (minimum of o	ne is requi			(5.6)			y Indicators (minimum of two required)
	Water (A1)		Water-Sta					ce Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		•			age Patterns (B10)
X Saturati	, ,		True Aqua					teason Water Table (C2)
	Marks (B1)		Hydrogen					ish Burrows (C8)
	nt Deposits (B2)		x Oxidized F	•		-	` '	ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
	posits (B3) at or Crust (B4)		Presence Recent Iro					norphic Position (D2)
	posits (B5)		Thin Muck			ileu 30ii	` '	Neutral Test (D5)
	ion Visible on Aerial Ir	magery (R7					<u>X</u> FAC-1	Neutral Test (D3)
	y Vegetated Concave							
Field Obse	, ,	- Curiaco (E	outer (Exp	Jiani III I	terriarito)			
	ter Present? Ye	e	No X	Depth (i	nches).			
Water Table				Depth (i	′ -	12		
Saturation F				. ,	′ =	6	Wetland Hydrolog	y Present? Yes X No
	Saturation Present? Yes X No Depth (inches): 6 Wetland Hydrology Present? Yes X No (includes capillary fringe)							
,	ecorded Data (stream	gauge, mo	onitoring well, aeria	l photos	, previous	s inspec	ctions), if available:	
Remarks:								
	,	, ,,	•	•		•	•,	precipitation and surface runoff in
geomorphic	position. No outflow t	o a delinea	ated teature, sheet	tiow dov	vn slope	tnrough	pasture, potentially iso	plated.

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Li	ine Rebuild Proje	ct_ City/Cou	nty: Perry C	County Sampling Date: 06/05/2020					
Applicant/Owner: AEP		<u>-</u>		State: OH Sampling Point: upl-bl-20200605-6					
Investigator(s): SM, BL		Section, T	ownship, Ra	nge: S 18 T 17N R 15W					
Landform (hillside, terrace, etc.): hillslope		r	Local relief (c	concave, convex, none): convex					
Slope (%):5 Lat: 39.87695		Long: -	82.22557	Datum: NAD83					
Soil Map Unit Name: GwD - Guernsey-Westmoreland	silt loams, 15	to 25 percen	t slopes	NWI classification: N/A					
Are climatic / hydrologic conditions on the site typical f	for this time of	year?	Yes x	No (If no, explain in Remarks.)					
Are Vegetation, Soil, or Hydrology		-		Circumstances" present? Yes x No					
Are Vegetation , Soil , or Hydrology	-			xplain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present? Yes N	lo X	Is the	Sampled Ar	rea					
	10 <u>//</u>		n a Wetland?						
	lo			<del></del>					
Remarks: Upland 056 point out to Wetland 052, approximately 5' north of wetland boundary at top of slope in pasture. Not a wetland point as hydrophytic vegetation criteria not met.									
VEGETATION – Use scientific names of pla		Dominant	Indiantor	т					
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:					
1				Number of Dominant Species That					
2.	15	Yes		Are OBL, FACW, or FAC: 1 (A)					
3.				Total Number of Dominant Species					
4.				Across All Strata: 4 (B)					
5				Percent of Dominant Species That					
Sapling/Shrub Stratum (Plot size: 15'	15 =	Total Cover	ļ	Are OBL, FACW, or FAC: 25.0% (A/B)					
Sapling/Shrub Stratum (Plot size: 15' 1.	,)		ļ	Prevalence Index worksheet:					
2.				Total % Cover of: Multiply by:					
3.				OBL species 0 x 1 = 0					
4.				FACW species 30 x 2 = 60					
5.				FAC species 0 x 3 = 0					
	=	Total Cover		FACU species 70 x 4 = 280					
Herb Stratum (Plot size: 5' )				UPL species 0 x 5 = 0					
1. Cirsium arvense	30	Yes	FACU	Column Totals: 100 (A) 340 (B)					
2. Agrostis gigantea	30	Yes	FACW	Prevalence Index = B/A = 3.40					
3. Solidago altissima	20	Yes	FACU						
4. Bromus inermis	10	No No	FACU	Hydrophytic Vegetation Indicators:					
5. Schedonorus arundinaceus	10	<u>No</u>	FACU	1 - Rapid Test for Hydrophytic Vegetation					
6				2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup>					
7. 8.				4 - Morphological Adaptations <sup>1</sup> (Provide supportin					
8. 9.				data in Remarks or on a separate sheet)					
10.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)					
	100 =	Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must					
Woody Vine Stratum (Plot size: 30'	)			be present, unless disturbed or problematic.					
1				Hydrophytic					
2				Vegetation					
	=	Total Cover		Present? Yes No X					
Remarks: (Include photo numbers here or on a sepa No hydrophytic vegetation indicators present, domina		√, prevalenc∈	index <3.0.	Dominant species are FACW and FACU					

US Army Corps of Engineers

**SOIL** Sampling Point: -bl-20200605

		to the depth				tor or o	confirm the absence	of indicators.)
Depth	Matrix			k Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-7	10YR 4/2	95	10YR 4/6	5	С	PL	Loamy/Clayey	silty clay loam
7-16	10YR 4/1	95	10YR 3/6	5	С	PL	Loamy/Clayey	silty sandy loam
		<u> </u>						
			_					
1 <sub>T. max</sub> C=C	tustian D-Dan		Dadwaad Matrix B				21 + i	DI - Dana Limin m M - Matrix
Hydric Soil	oncentration, D=Dep	ielion, Rivi-r	Reduced Matrix, N	15-IVIAS	keu Sand	Grains		: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gley	red Mat	riv (S4)			t Prairie Redox (A16)
Histic Epipedon (A2) Sandy Redox (S5)						Manganese Masses (F12)		
Black His			Stripped M					Parent Material (F21)
	n Sulfide (A4)		Dark Surfa	,	-,			Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mud		eral (F1)			r (Explain in Remarks)
2 cm Mu			Loamy Gle	-				,
Depleted	l Below Dark Surface	e (A11)	X Depleted M					
Thick Dark Surface (A12)  Redox Dark Surface (F6)						<sup>3</sup> Indicator	s of hydrophytic vegetation and	
Sandy M	lucky Mineral (S1)		Depleted D	ark Sur	face (F7)		wetla	nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S3	5)	? Redox Dep	ression	s (F8)		unles	s disturbed or problematic.
Restrictive Layer (if observed):								
Type:								
Depth (ir	nches):		_				Hydric Soil Present	? Yes X No
Remarks:						J.		
								s of Hydric Soils in the United States,
	2018. (https://www.n							
Hydric soil in	dicator present as lo	w chroma/hi	gh value depleted	matrix	with requ	ired red	lox concentrations.	
	-0.4							
HYDROLO								
_	drology Indicators:							
	cators (minimum of o	ne is require			(50)			y Indicators (minimum of two required)
	Water (A1)		Water-Stair		, ,			ce Soil Cracks (B6)
	ter Table (A2)		Aquatic Fa	•	•			age Patterns (B10)
Saturatio			True Aquat Hydrogen S					Season Water Table (C2)
	arks (B1) It Deposits (B2)		x Oxidized R					ish Burrows (C8) ration Visible on Aerial Imagery (C9)
	osits (B3)		Presence of			_		ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iron		•	,		norphic Position (D2)
	osits (B5)		Thin Muck					Neutral Test (D5)
	on Visible on Aerial Ir	magery (B7)	Gauge or V					,
Sparsely	Vegetated Concave	Surface (B8						
Field Obser	vations:							
Surface Water	er Present? Ye	s	No X I	Depth (i	nches):			
Water Table	Present? Ye	s	No X	Depth (i	nches):			
Saturation P	resent? Ye	s	No X	Depth (i	nches):		Wetland Hydrolog	gy Present? Yes X No
(includes cap								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								
	hydrology indicator	oresent. Prim	nary source of hyd	drology i	s Wetlan	d 052 s	oil saturation migration	
. ,	. 0,		,	0,			J	

Site: Crooksville	e-North Newark 138 kV Transmission L	Line Rebuild Project	Date:	June 5, 2020
Wetland: w-	ol-20200605-04		Rater:	BL, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (3)  3 to <10 acres (1.2 to <4ha) (3)  0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12  x <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts)		
1 1 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one WIDE. Buffers average 50m (1 MEDIUM. Buffers average 25m NARROW. Buffers average 10 x VERY NARROW. Buffers average  2b. Intensity of surrounding land use (select of VERY LOW. 2nd growth or old LOW. Old field (>10 years), shi	e, do not double check) 164ft) or more around wetken to <50m (82 to <164ft) and to <25m (32ft to <82ft) around was a comment of the comment o	and perimeter (7 round wetland p around wetland wetland perimete erage) h, wildlife area, e	erimeter (4)   perimeter (1)   per (0)
11 10	MODERATELY HIGH. Resider  HIGH. Urban, industrial, open p  Metric 3. Hydrology. (max 30 pts)			-
Subtotal Points	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface w  Perennial surface water (lake of	vater (3) r stream) (5)	100 ye Betwe Part of Part of	Score all that apply. ear floodplain (1) een stream/lake and other human use (1) f wetland/upland (e.g. forest), complex (1) f riparian or upland corridor (1)  dation/saturation. or double check & average)
	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1)		Regula Seaso	to permanently inundated/saturated (4) arly inundated/saturated (3) anally inundated (2) anally saturated in upper 30cm (12in) (1)
	3e. Modifications to natural hydrologic regime (select one or double check & average None or none apparent (12) x Recovered (7) Recovering (3) Recent or no recovery (1)	e)		isturbances observed
18 7 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dout None or none apparent (4)  X Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)	uble check and average.	c. Habitat altera  None (  Recov	ntion. Score one or double check and average. or none apparent (9) rered (6) vering (3) nt or no recovery (1)
	Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1)	Check all disturbation mowing grazing clearcutting selective cutting woody debris removation toxic pollutants	[ [ [ [ ral	shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient emrichment

Sito: Crookovillo I		138 kV Transmission Line Rebuil	Dato:	Juno 5, 2020
		130 KV Transmission Line Rebuil		June 5, 2020
Wetland: w-bl-	-20200605-04		Rater:	BL, SM
18 subtotal first page	ge			
18 0	-	ecial Wetlands. (max 10 pts.)		
Subtotal Points	Check all that ap	ply and score as indicated Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unre Lake Erie coastal/tributary wetland-restr Lake Plain Sand Prairies (Oak Openings Relict Wet Prairies (10 pts) Known occurrence state/federal threater Significant migatory songbird/waterfowl	icted hydrolog s) (10 pts) ned or endang	ered species (10)
		Category 1 Wetland. See Question 1 of	Qualitative Ra	ating. (-10 pts)
21 3 Subtotal Points	6a. Wetland Veg	ant Communities, interspersion netation Communities using 0 to 3 scale	•	ography. (max 20 pts.] n Community Cover Scale
		Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	1	Emergent Shrub Forest Mudflats	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
		Open water Other (list)	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
	6b. Horizontal (p	olan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		High (5) Moderately high (4)	Narrative	Description of Vegetation Quality
		Moderate (3) Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	x 6c. Coverage of	Low (1) None (0)  invasive plants.	moderate	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 threatened or endangered spp
	Refer to Table 1 Add or deduct po	ORAM long form for list. ints for coverage  Extensive >75 % cover (-5)  Moderate 25-75% cover (-3)	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
		Sparse 5-25% cover (-1) Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	×	Absent (1)	0	Absent <0.1 ha (0.2471 acres)
		1 '	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopogra	<u>aphy</u>	3	High 4 ha (9.88 acres) or more
		using 0 to 3 scale  Vegetated hummocks/tussocks	Microtopo	ography Cover Scale
	0	Coarse woody debris >15 cm (6")	0	Absent
0 Si		Standing dead > 25 cm (10") dbh Amphibian breeding pools	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 and of highest quality



**Client Name:** 

AEP

Site Location:

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

**Project No.** 60616110

#### Wetland 052

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing North



## Wetland 052

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 052

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing South



## Wetland 052

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 052

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lin	e Rebuild Projec	t City/Cour	nty: Perry Co	ounty	Sampling Date:	06/05/2020
Applicant/Owner: AEP		<u> </u>		State: OH	Sampling Point:	w-bl-20200605-05
Investigator(s): SM, BL		Section, To	ownship, Rar	nge: S 18 T 17N R 15\	V	
Landform (hillside, terrace, etc.): swale		L	ocal relief (co	oncave, convex, none):	concave	
Slope (%): 10 Lat: 39.8776		Long: -8	32.22705		Datum: NAD 83	
Soil Map Unit Name: GwD - Guernsey-Westmoreland	silt loams, 15	to 25 percent	slopes	NWI classit	ication: N/A	
Are climatic / hydrologic conditions on the site typical fo	or this time of	year?	Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrologys	ignificantly di	sturbed? A	re "Normal C	ircumstances" present?	Yes x No	)
Are Vegetation , Soil , or Hydrology r			f needed, exp	olain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site ma	np showing	g sampling	g point loc	ations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes X No		ls the	Sampled Ar	02		
			a Wetland?		No	
Wetland Hydrology Present? Yes X						
Remarks:		<u> </u>				
Sampling point (w-bl-20200605-05) in to PEM Wetland	d 053, wet me	adow swale l	ocated in pas	sture. Wetland is fully de	elineated and isolate	ed.
VEGETATION – Use scientific names of pla						
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wo	rksheet:	
1.				Number of Dominant	Species That	
2.				Are OBL, FACW, or F		3 (A)
3				Total Number of Dom	inant Species	
4.				Across All Strata:		3 (B)
5		Tatal Cause		Percent of Dominant	•	0 00/ (A/D)
Sapling/Shrub Stratum (Plot size: 15' )	=	Total Cover		Are OBL, FACW, or F	AC: 10	0.0% (A/B)
1.				Prevalence Index wo	orksheet:	
2.				Total % Cover of		by:
3.				OBL species 2		20
4.				FACW species 7	5 x 2 = 1	150
5				FAC species 0		0
	=	Total Cover		FACU species 5		20
Herb Stratum (Plot size: 5' )	40	Voo	EAC)4/	UPL species Column Totals: 10		0 (B)
Carex vulpinoidea     Juncus effusus	20	Yes Yes	FACW OBL	Column Totals: 10 Prevalence Index	``	190 (B)
3. Agrostis gigantea	20	Yes	FACW	1 TOVAICTICO ITIACX	1.30	
4. Poa palustris	10	No	FACW	Hydrophytic Vegetat	tion Indicators:	
5. Bromus ciliatus	5	No	FACW	X 1 - Rapid Test for		ation
6. Cirsium arvense	5	No	FACU	X 2 - Dominance Te	est is >50%	
7				X 3 - Prevalence Inc	dex is ≤3.0 <sup>1</sup>	
8					Adaptations <sup>1</sup> (Provi	
9					s or on a separate	-
10					ophytic Vegetation <sup>1</sup>	
Woody Vine Stratum (Plot size: 30' )	100 =	Total Cover		<sup>1</sup> Indicators of hydric s be present, unless dis		
Woody Vine Stratum (Plot size: 30' ) 1.				·	iturbed or problema	uc.
2.			<del></del>	Hydrophytic Vegetation		
	=	Total Cover		_	X No	
Remarks: (Include photo numbers here or on a separ	ate sheet.)			•		
Hydrophytic vegetation indicator present as rapid test,	,	ecies are OBI	L and FACW.			

Wetland 053

SOIL Sampling Point: bl-20200605-

Profile Desc	ription: (Describe	to the dep				tor or o	confirm the absence of	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 4/2	100					Loamy/Clayey	silty clay loam
3-17	N 4/	80	10YR 3/6	20	С	PL	Loamy/Clayey	clay
			_		·			
	-							
1								
	oncentration, D=Dep	letion, RM=	Reduced Matrix, N	//S=Mas	ked Sand	Grains		: PL=Pore Lining, M=Matrix.
Hydric Soil			Canada Cla	1 1 1 1 - 4	mir. (C.4)			s for Problematic Hydric Soils <sup>3</sup> :
Histosol	` '		Sandy Gle Sandy Red	-				t Prairie Redox (A16) Manganese Masses (F12)
Black Hi	ipedon (A2)		Stripped M					Parent Material (F21)
	n Sulfide (A4)		Dark Surfa	•	)			Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu	٠,	eral (F1)			(Explain in Remarks)
2 cm Mu			X Loamy Gle	-				(Explain in Nomano)
	l Below Dark Surface	e (A11)	Depleted N	-				
	Thick Dark Surface (A12)  Redox Dark Surface (F6)					<sup>3</sup> Indicator	s of hydrophytic vegetation and	
	Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)							nd hydrology must be present,
	5 cm Mucky Peat or Peat (S3)  ? Redox Depressions (F8)							s disturbed or problematic.
Restrictive	Restrictive Layer (if observed):							
Type:	- <b>)</b> 0 ( 0.000.100.)							
Depth (ir	nches):						Hydric Soil Present	? Yes X No
Remarks:								
This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils in the United States,								
	2018. (https://www.r							·
Hydric soil in	dicator present as g	eyed matri	x, not in a depress	ion subje	ect to pon	ding.		
HYDROLO	GY							
Wetland Hy	drology Indicators:							
-	cators (minimum of c	ne is requi	red; check all that a	apply)			Secondar	ry Indicators (minimum of two required)
X Surface	·		Water-Stai		ves (B9)			ce Soil Cracks (B6)
	ter Table (A2)		Aquatic Fa	iuna (B1	3)			age Patterns (B10)
X Saturation	on (A3)		True Aqua	tic Plant	s (B14)		Dry-S	Season Water Table (C2)
Water M	arks (B1)		Hydrogen	Sulfide (	Odor (C1)		Crayf	ish Burrows (C8)
Sedimer	t Deposits (B2)		x Oxidized F	Rhizosph	eres on L	iving R	oots (C3) <u>x</u> Satur	ation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Presence	of Reduc	ced Iron (	C4)	Stunt	ed or Stressed Plants (D1)
Algal Ma	t or Crust (B4)		Recent Iro			led Soil		norphic Position (D2)
	osits (B5)		Thin Muck		, ,		X FAC-	Neutral Test (D5)
	on Visible on Aerial I		·					
Sparsely	Vegetated Concave	Surface (E	38) Other (Exp	olain in R	Remarks)			
Field Obser								
Surface Wat	er Present? Ye	s X		Depth (i	· -	0.5		
Water Table				Depth (i	′ –	10		
	Saturation Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Yes X No Depth (inches): 0							
(includes cap	• • •		unia mine a constitui di	I le - 1			Mana \ 16 9-1 1	
Describe Re	corded Data (stream	gauge, mo	onitoring well, aeria	ı pnotos	, previous	inspec	cuons), it available:	
Remarks:								
	ary and secondary h	ıydroloav ir	idicators present. F	Primary s	source of	hydrolo	ogy is concentration of	precipitation and surface runoff in
	•		•	-		-	••	pasture, potentially isolated.

### Upland 057

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission L	Line Rebuild Proj	ect City/Cou	unty: Perry C	ounty	Sampling Date	e: 06/05/2020		
Applicant/Owner: AEP		<u> </u>		State: OH	Sampling Poir	nt: upl-bl-20200605-06		
Investigator(s): SM, BL		Section,	Township, Ra	inge: S 18 T 17N F	₹ 15W			
Landform (hillside, terrace, etc.): hillslope			Local relief (c	concave, convex, no	ne): convex			
Slope (%): 10 Lat: 39.87778		Long:	-82.22706		Datum: NAD 83			
Soil Map Unit Name: GwD - Guernsey-Westmoreland	d silt loams, 15	5 to 25 percer	nt slopes	NWI cl	lassification: N/A			
Are climatic / hydrologic conditions on the site typical			Yes x	<u> </u>	o, explain in Remarks	<i>.</i> .)		
Are Vegetation, Soil, or Hydrology	significantly	disturbed?			sent? Yes x			
Are Vegetation, Soil, or Hydrology_	_			· κplain any answers ir				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes	No X	ls th	e Sampled Aı	rea				
	No X		in a Wetland?		No_X_			
	No X			_				
Remarks: Upland 057 point out to Wetland 053, approximately 10 feet west of wetland boundary at equal elevation in pasture. Not a wetland point as no wetland criteria met.  VEGETATION – Use scientific names of plants.								
	Absolute	Dominant	Indicator	T				
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test	t worksheet:			
1. 2.		Yes			nant Species That	ο (Λ)		
3.	15	Yes		Are OBL, FACW,	<del>-</del>	0 (A)		
4.				Total Number of Across All Strata:	Dominant Species	2 (B)		
5.					· nant Species That	(-,		
	15	=Total Cover		Are OBL, FACW,	•	0.0% (A/B)		
Sapling/Shrub Stratum (Plot size: 15'								
1.	<u> </u>			Prevalence Inde				
2.				Total % Cov		iply by:		
3.				OBL species	0 x 1 =	0		
4.				FACW species	5 x 2 =	10		
5		=Total Cover		FACIL species	8 x 3 =	320		
Herb Stratum (Plot size: 5' )		=10lal Cove		FACU species UPL species	80 x 4 = 0 x 5 =	320 0		
1. Bromus inermis	60	Yes	FACU	Column Totals:	93 (A)	354 (B)		
Phleum pratense	10	No	FACU	Prevalence Inc		3.81		
Cirsium arvense	10	No	FACU					
4. Agrostis gigantea	5	No	FACW	Hydrophytic Ve	getation Indicators:			
5. Xanthium strumarium	5	No	FAC		st for Hydrophytic Ve			
6. Vernonia gigantea	3	No	FAC		ce Test is >50%			
7				<u> </u>	ce Index is ≤3.0 <sup>1</sup>			
8.					gical Adaptations <sup>1</sup> (Pr			
9.					marks or on a separa			
10		- : ! O=\(or			Hydrophytic Vegetation			
Woody Vine Stratum (Plot size: 30'	) 93	=Total Cover		,	dric soil and wetland has disturbed or proble	, ,,		
1.	<b>-</b> ′			Hydrophytic				
2.				Vegetation				
		=Total Cover		_	Yes No	<u> </u>		
Remarks: (Include photo numbers here or on a sep-				<u>.</u>				
No hydrophytic vegetation indicators present, domin	ance test <50°	%, prevalence	e index >3.0.	Dominant species is	FACU.			

US Army Corps of Engineers

SOIL Sampling Point: -bl-20200605

	•	to the dep				tor or c	onfirm the absence o	of indicators.)						
Depth	Matrix			x Featur		. 2	_							
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks						
0-3	10YR 3/2	100					Loamy/Clayey	silty clay loam						
3-15	2.5Y 5/4	60	10YR 4/2	40	С	M	Loamy/Clayey	sandy silt; dual matrix						
			_											
-														
1			De desert Matrice I	40. 14			21 4:	Di Dana Linia a M Matria						
Hydric Soil	Concentration, D=Dep	letion, RM	=Reduced Matrix, I	viS=Mas	ked San	Grains		PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils	3.					
Histosol			Sandy Gle	wed Mat	riv (S4)			s for Problematic Hydric Solls t Prairie Redox (A16)	• :					
	pipedon (A2)		Sandy Re	-				Manganese Masses (F12)						
	istic (A3)		Stripped N					Parent Material (F21)						
	en Sulfide (A4)		Dark Surfa	•	3)			Shallow Dark Surface (F22)						
	d Layers (A5)		Loamy Mu		eral (F1)			(Explain in Remarks)						
	uck (A10)		Loamy Gle	-			<del></del> -	,						
	d Below Dark Surface	e (A11)	Depleted I											
	ark Surface (A12)	,	Redox Da		-		<sup>3</sup> Indicators	s of hydrophytic vegetation and						
Sandy N	Mucky Mineral (S1)		Depleted I	Dark Sur	face (F7)	)	wetla	nd hydrology must be present,						
5 cm Mu	ucky Peat or Peat (S3	3)	? Redox De	pression	s (F8)		unles	s disturbed or problematic.						
Restrictive Layer (if observed):														
Type:														
Depth (i	nches):						<b>Hydric Soil Present</b>	? Yes No	о <u>Х</u>					
Remarks:	Remarks:													
This data for	rm is revised from Mi	dwest Reg	ional Supplement \	ersion 2	2.0 to inc	ude the	NRCS Field Indicators	of Hydric Soils in the United Sta	ates,					
	2018. (https://www.n													
No hydric so	oil indicators present,	low chrom	a/high value matrix	without	required	redox c	oncentrations.							
HYDROLO	OGY													
Wetland Hy	drology Indicators:													
_	cators (minimum of o	ne is requi	red; check all that	apply)			Secondar	y Indicators (minimum of two red	quired)					
-	Water (A1)		Water-Sta		ves (B9)		Surfa	ce Soil Cracks (B6)						
High Wa	ater Table (A2)		Aquatic Fa	auna (B1	3)		Drain	age Patterns (B10)						
Saturation	on (A3)		True Aqua	itic Plant	s (B14)		Dry-S	eason Water Table (C2)						
Water M	larks (B1)		Hydrogen	Sulfide (	Odor (C1	)	Crayf	ish Burrows (C8)						
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosph	eres on l	_iving R	oots (C3) Satur	ation Visible on Aerial Imagery (	(C9)					
Drift Dep	posits (B3)		Presence	of Redu	ced Iron (	(C4)	Stunt	ed or Stressed Plants (D1)						
	at or Crust (B4)		Recent Iro			lled Soil	` '	norphic Position (D2)						
	posits (B5)		Thin Muck		` '		FAC-	Neutral Test (D5)						
	on Visible on Aerial I	0 , (	, <u>—</u>		, ,									
Sparsely	y Vegetated Concave	Surface (l	38) Other (Exp	olain in F	Remarks)									
Field Obser														
Surface Wat	ter Present? Ye	es		Depth (i	′ -									
Water Table					nches): _									
Saturation F		es	No X	Depth (i	nches):_		Wetland Hydrolog	y Present? Yes No	<u> </u>					
	(includes capillary fringe)													
(includes ca			and the sales of t	ا اسا.		_ !	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
(includes ca		gauge, m	onitoring well, aeria	l photos	, previou	s inspec	tions), if available:							
(includes ca Describe Re		gauge, m	onitoring well, aeria	l photos	, previou	s inspec	tions), if available:							
(includes ca Describe Re Remarks:	ecorded Data (stream	gauge, m	onitoring well, aeria	l photos	, previou	s inspec	tions), if available:							
(includes ca Describe Re Remarks:		gauge, mo	onitoring well, aeria	al photos	, previou	s inspec	tions), if available:							

Site: Crooksvi	lle-North Newark 138 kV Transmission L	<b>Date:</b> June 5, 2020			
	Metric 1. Wetland Area (size). (ma  Select one size class and assign score.     >50 acres (>20.2ha) (6 pts)   25 to <50 acres (10.1 to <20.2h   10 to <25 acres (4 to <10.1ha) (3 to <10 acres (1.2 to <4ha) (3 to <3 acres (0.12 to <1.2ha)   0.1 to <0.3 acres (0.04 to <0.12 x <0.1 acres (0.04ha) (0 pts)     Metric 2. Upland buffers and surro     2a. Calculate average buffer width (select one   MEDIUM. Buffers average 50m (1   MEDIUM. Buffers average 25m	ix 6 pts)  (4 pts) pts) (2pts) (ha) (1 pt)  punding land use. (maximum displayed by the continuous displayed by th	Rater:  ax 14 pts)  ad perimeter (7)  und wetland pe	BL, SM	
	NARROW. Buffers average 10  x VERY NARROW. Buffers average 20  2b. Intensity of surrounding land use (select of the content of	age <10m (<32ft) around we one or double check & avera er forest, prairie, savannah, rubland, young second grow ntial, fenced pasture, park, c	etland perimeter age) wildlife area, et with forest. (5) conservation tilla	c. (7)	
16 15 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake of other states of the surface water (lake of other states of the surface water (lake of other	rater (3) r stream) (5)  3d.  3.	Duration inunda (select one or Regular Season X Season Check all dis ditch dike	Score all that apply.  ar floodplain (1)  In stream/lake and other human use (1)  wetland/upland (e.g. forest), complex (1)  riparian or upland corridor (1)  ation/saturation.  double check & average)  to permanently inundated/saturated (4)  rity inundated/saturated (3)  hally inundated (2)  ally saturated in upper 30cm (12in) (1)  sturbances observed  point source (nonstormwater)  filling/grading  road bed/RR track dredging  ut other- list	
22 6 Subtotal Points	Metric 4. Habitat Alteration and Definition of the second	uble check and average.	Habitat alterati None or Recove X Recove Recent	ering (3) or no recovery (1)	

22 subtotal this page

Site: Crooksville-North Newark 138 kV Transmission Line Rebuil	Date:	June 5, 2020			
	1				
Wetland: w-bl-20200605-05	Rater:	BL, SM			
subtotal first page					
22 0 Metric 5. Special Wetlands. (max 10 pts.)					
Subtotal Points Check all that apply and score as indicated					
Bog (10 pts)					
Fen (10 pts)					
Old Growth Forest (10 pts)					
Mature forested wetland (5 pts)					
Lake Erie coastal/tributary wetland-unre	stricted hydrol	ogy (10 pts)			
Lake Erie coastal/tributary wetland-restr	icted hydrolog	y (5 pts)			
Lake Plain Sand Prairies (Oak Openings	s) (10 pts)				
Relict Wet Prairies (10 pts)					
Known occurrence state/federal threater	_				
Significant migatory songbird/waterfowl					
Category 1 Wetland. See Question 1 of	Qualitative K	aung. (-10 pts)			
26 4 Metric 6. Plant Communities, interspersion	, microton	ography. (max 20 pts.)			
Subtotal Points 6a. Wetland Vegetation Communities					
Score all present using 0 to 3 scale	Vegetatio	n Community Cover Scale			
Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area			
2 Emergent		7 355 TK 61 50 TIPI 1505 -10.1 TIR (0.2-71 1 40165) COTTINGUOUS AIGA			
Shrub		Present and either comprises small part of wetland's vegetation and is			
Forest	1	of moderate quality, or comprises a significant part but is of low quality			
Mudflats					
Open water	_	Present and either comprises significant part of wetland's vegetation			
Other (list)	2	and is of moderate quality or comprises a small part and is of high quality			
6b. Horizontal (plan view) interspersion		Present and comprises significant part, or more, of wetland's vegetation			
Select only one	3	and is of high quality			
High (5)					
Moderately high (4)	Narrative Description of Vegetation Quality				
Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance			
Moderately low (2)		tolerant native species			
Low (1) x None (0)		Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present,			
Notice (0)	moderate	and species diversity moderate to moderately high, but generally w/o			
6c. Coverage of invasive plants.		presence of rare threatened or endangered spp			
Refer to Table 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or			
Add or deduct points for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp			
Extensive >75 % cover (-5)	- ingii	diversity and often, but not always, the presence of rare, threatened, or			
Moderate 25-75% cover (-3)		endangered spp			
Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Quality			
Nearly Absent <5% cover (0)  X Absent (1)	0	Absent <0.1 ha (0.2471 acres)			
Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 acres)			
	2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)			
6d. Microtopography	3	High 4 ha (9.88 acres) or more			
Score all present using 0 to 3 scale					
1 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale			
0 Coarse woody debris >15 cm (6")	0	Absent			
0 Standing dead > 25 cm (10") dbh 0 Amphibian breeding pools	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 and of highest quality			



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 053

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 053

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 053

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing South



#### Wetland 053

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 053

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission L	Line Rebuild Proje	ect City/Cou	nty: Perry C	county	Sampling Date:	06/05/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-bl-20200605-06
Investigator(s): SM, BL		Section, T	 ∫ownship, Ra	inge: S 18 T 17N R 15	w	
Landform (hillside, terrace, etc.): hillside		<u> </u>	Local relief (c	concave, convex, none):	concave	
Slope (%): 10 Lat: 39.87795			82.22746		Datum: NAD 83	
Soil Map Unit Name: GwD - Guernsey-Westmoreland	d silt loams, 15			NWI classi	fication: N/A	
Are climatic / hydrologic conditions on the site typical		•	Yes x	No (If no, ex		
Are Vegetation , Soil , or Hydrology		•		Circumstances" present?		)
Are Vegetation, Soil, or Hydrology_				cplain any answers in Re		
SUMMARY OF FINDINGS – Attach site n	<del></del>		•		•	ures, etc.
Hydrophytic Vegetation Present? Yes X	No	Is the	Sampled A	rea		
	No		n a Wetland?		No	
<del></del>	No					
Remarks:		<del></del>				
Sampling point (w-bl-20200605-06) in for PEM Wetla	and 054, wet m	neadow on hil	llside in pastu	ure. Wetland fully delinea	ated and potentially i	solated.
<b>VEGETATION</b> – Use scientific names of pl		<del></del>				
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wo	rksheet:	
1.	// 00.5.	Орослов.	Olulac	Number of Dominant		
2.				Are OBL, FACW, or F	•	1 (A)
3.				Total Number of Dom	ninant Species	
4.				Across All Strata:	•	2 (B)
5				Percent of Dominant	•	-
- " 'C' ' C' ' (D)-1-: (E)	. ——=	=Total Cover		Are OBL, FACW, or F	FAC: 50	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	_)			Indov.w	• • - • - •	
1. 2.				Prevalence Index we Total % Cover o		h
2						20
4.						10
5.				·		0
	:	=Total Cover		·		20
Herb Stratum (Plot size: 5' )				·	0 x 5 =	0
1. Carex vulpinoidea	30	Yes	FACW	Column Totals: 10	05 (A) 2	250 (B)
2. Bromus inermis	30	Yes	FACU	Prevalence Index	= B/A = 2.38	
3. Lysimachia nummularia	20	No	FACW			
4. Juncus effusus	10	No	OBL	Hydrophytic Vegeta		
5. Scirpus atrovirens		No No	OBL	<del></del>	r Hydrophytic Vegeta	ation
6. Agrostis gigantea	5	<u>No</u>	FACW	2 - Dominance To		
7. 8.				X 3 - Prevalence In	idex is ≤3.01 I Adaptations <sup>1</sup> (Provi	de cupporting
0				· -	ks or on a separate :	
10.					rophytic Vegetation <sup>1</sup>	•
	105 =	=Total Cover		<sup>1</sup> Indicators of hydric s	· ·	
Woody Vine Stratum (Plot size: 30'	)			be present, unless dis		
1.	<u>-</u> 			Hydrophytic		
2.				Vegetation		
	<u>=</u>	=Total Cover		Present? Yes	X No	= <u></u>
Remarks: (Include photo numbers here or on a sepa	,					
Hydrophytic vegetation indicator present as prevaler	nce index <3.0.	. Dominant sp	ecies are FA	CW and FACU.		
1						,

US Army Corps of Engineers

Wetland 054

SOIL Sampling Point: bl-20200605-

Profile Des	cription: (Describe	to the dep	th needed to doc	ument th	ne indica	tor or c	onfirm the absen	ce of indicators.)
Depth	Matrix		Redo	x Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-7	2.5Y 5/1	90	10YR 4/6	10	С	PL	Loamy/Clayey	sandy clay loam
7-16	2.5Y 6/2	90	2.5Y 6/6	10	C	М	Loamy/Clayey	sandy clay loam
	· ·							
								_
-							-	<del>-</del>
								_
	Concentration, D=Depl	etion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	d Grains		tion: PL=Pore Lining, M=Matrix.
	Indicators:		Carada Cla		-iv (C.4)			ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	-				oast Prairie Redox (A16)
	pipedon (A2) istic (A3)		Sandy Red Stripped M					on-Manganese Masses (F12) ed Parent Material (F21)
	en Sulfide (A4)		Dark Surfa	•	))			ery Shallow Dark Surface (F22)
	d Layers (A5)		Loamy Mu		aral (E1)			other (Explain in Remarks)
	uck (A10)		Loamy Gle	-				titlet (Explain in Nemarks)
	d Below Dark Surface	(A11)	X Depleted I	-				
	ark Surface (A12)	(, )	Redox Da	•	•		<sup>3</sup> Indic	ators of hydrophytic vegetation and
	Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)						etland hydrology must be present,	
	ucky Peat or Peat (S3	)	? Redox De		, ,			nless disturbed or problematic.
Restrictive Layer (if observed):								
Type:								
Depth (i	inches):						Hydric Soil Pres	sent? Yes X No
Remarks:								
	rm is revised from Mid	lwest Reai	onal Supplement \	ersion 2	2.0 to incl	ude the	NRCS Field Indica	ators of Hydric Soils in the United States,
	, 2018. (https://www.n							
	ndicator present as lo							ponding.
HYDROLO	OGY							
	/drology Indicators:							
	icators (minimum of o	ne is requi	ed: check all that:	annly)			Secon	ndary Indicators (minimum of two required)
	Water (A1)	iic is requii	Water-Sta		ves (B9)			urface Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa					rainage Patterns (B10)
X Saturati			True Aqua					ry-Season Water Table (C2)
	Marks (B1)		Hydrogen			)		rayfish Burrows (C8)
	nt Deposits (B2)		x Oxidized F				oots (C3) x S	aturation Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ed Iron (	C4)	s	tunted or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Til	lled Soil	s (C6) X G	eomorphic Position (D2)
Iron Dep	posits (B5)		Thin Muck	Surface	(C7)		<u>X</u> F.	AC-Neutral Test (D5)
Inundati	ion Visible on Aerial Ir	nagery (B7	)Gauge or	Well Dat	a (D9)			
Sparsel	y Vegetated Concave	Surface (E	38) Other (Exp	olain in R	temarks)			
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s X	No	Depth (i	nches):	0.5		
Water Table	e Present? Ye	s <u>X</u>	No	Depth (i	nches):	0.5		
Saturation F	Present? Ye	s <u>X</u>	No	Depth (i	nches): _	7	Wetland Hydr	ology Present? Yes X No
(includes capillary fringe)								
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	l photos	, previous	s inspec	tions), if available:	
Domonica								
Remarks: Multiple prin	nary and secondary h	vdrology in	dicators present	Primary s	source of	hydrolo	av is concentration	of precipitation and surface runoff in
								ards intermittent Stream 052, potentially
isolated.			,		, -	J	<b>5</b> ,	

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lin	e Rebuild Proj	ect_ City/Cou	nty: Perry C	ounty	Sampling D	ate: 06/0	5/2020
Applicant/Owner: AEP				State: OH	Sampling Po	oint: upl-bl-	-20200605-07
Investigator(s): SM, BL		Section, T	Township, Ra	inge: S 18 T 17N R	15W		
Landform (hillside, terrace, etc.): hillslope			Local relief (d	concave, convex, nor	ne): convex		
Slope (%): 10 Lat: 39.87802		Long: -	82.22745		Datum: NAD	83	
Soil Map Unit Name: GwD - Guernsey-Westmoreland	silt loams, 1	5 to 25 percen	t slopes	NWI cla	assification: N/A		
Are climatic / hydrologic conditions on the site typical fo			Yes x			ks.)	
Are Vegetation, Soil, or Hydrologys	significantly	-		Circumstances" prese			
Are Vegetation, Soil, or Hydrologyr				ιplain any answers in			_
SUMMARY OF FINDINGS – Attach site ma			•		•	features	, etc.
Hydrophytic Vegetation Present? Yes No	. X	Is the	Sampled A	rea			
	$\frac{x}{x}$		n a Wetland?		No_X		
	$\frac{X}{X}$			·	·	•	
Remarks:							
Upland 058 point out to Wetland 054 and Wetland 055 wetland criteria met.	i, representa	ative of ROW a	area betweer 	n both wetland bound	laries. Not a wetla	nd point as	no
VEGETATION – Use scientific names of plan	nts.						
(7) (4)	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30' ) 1.	% Cover	Species?	Status	Dominance Test			
2.				Number of Domina Are OBL, FACW,	•	1	(A)
3.				Total Number of D			<b>-</b> '''
4.				Across All Strata:	•	2	(B)
5.				Percent of Domina	ant Species That		_` '
		=Total Cover		Are OBL, FACW,	•	50.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')	-						
1.				Prevalence Index			
2.				Total % Cove		ultiply by:	_
3.				OBL species	0 x 1 =	0	_
4				FACW species	0 x 2 =		_
5		=Total Cover		FACULARISIS	30 x 3 = 60 x 4 =	90	-
Herb Stratum (Plot size: 5' )		= Total Cove		FACU species UPL species	0 x 4 =	0	-
1. Bromus inermis	40	Yes	FACU	Column Totals:	90 (A)	330	— (B)
2. Poa pratensis	30	Yes	FAC	Prevalence Ind		3.67	_('')
Dactylis glomerata	10	No	FACU	1107010	CA 2	0.01	-
4. Trifolium pratense	10	No	FACU	Hydrophytic Veg	getation Indicator	s:	
5.					t for Hydrophytic \		
6.					e Test is >50%		
7.					e Index is ≤3.0 <sup>1</sup>		
8.					gical Adaptations <sup>1</sup> (		
9.				data in Ren	marks or on a sepa	arate sheet	)
10				Problematic H	Hydrophytic Vegeta	ation <sup>1</sup> (Exp	ain)
	90	=Total Cover			ric soil and wetland		/ must
Woody Vine Stratum (Plot size: 30')				be present, unless	s disturbed or prob	olematic.	
1.				Hydrophytic			
2		T :-! Onum		Vegetation	. Na	v	
		=Total Cover		Present? Y	/esNo	<u> </u>	
Remarks: (Include photo numbers here or on a separ.	,	'a'volonor	· -1>20	- to ant anadiae ar	540 EACH		ļ
No hydrophytic vegetation indicators present, dominar	ice lest <50	%, prevalence	) lfidex >3.0.	Dominant species air	e FAC and FACO		

Upland 058

SOIL Sampling Point: -bl-20200605

Profile Desc	ription: (Describe t	o the depth	needed to doc	ument th	ne indica	tor or c	onfirm the absence o	of indicators.)	
Depth	Matrix		Redo	x Featur					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-3	10YR 4/2	100					Loamy/Clayey	sandy silty loa	m
3-15	10YR 4/6	100					Loamy/Clayey	sandy silt	
									_
	oncentration, D=Depl	etion, RM=F	Reduced Matrix, I	MS=Mas	ked Sand	Grains		: PL=Pore Lining, M=Matr	
Hydric Soil								s for Problematic Hydric	Soils*:
Histosol			Sandy Gle	-				t Prairie Redox (A16)	
	ipedon (A2)		Sandy Re	. ,				Manganese Masses (F12)	
Black His	` '		Stripped N	•	5)			Parent Material (F21)	.,
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F22	2)
	Layers (A5)		Loamy Mu	-			Other	r (Explain in Remarks)	
2 cm Mu	ck (ATU)   Below Dark Surface	(A11)	Loamy Gle Depleted I	-					
	rk Surface (A12)	(Δ11)	Redox Da				<sup>3</sup> Indicator	s of hydrophytic vegetation	and
	ucky Mineral (S1)		Depleted I		` '			nd hydrology must be pres	
	cky Peat or Peat (S3	)	Redox De		` '			s disturbed or problematic	
	` `	<u>'</u>		p1 0001011				- alotatora of problematic	
Type:	_ayer (if observed):								
Depth (in	ichee).		<del>_</del>				Hydric Soil Present	? Yes	No X
. ,			_				Tryunc con r resem		<u> </u>
Remarks: This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils in the United States,									
	2018. (https://www.n							s of Flydric Solis III the Offic	eu States,
	l indicators present,	-	<b>—</b>			–			
HYDROLO	GY								
_	drology Indicators: cators (minimum of o	ne is require	od: check all that	annly)			Secondar	ry Indicators (minimum of t	wo required)
	Water (A1)	ic is require	Water-Sta		ves (B9)			ce Soil Cracks (B6)	wo required)
	ter Table (A2)		Aquatic Fa					age Patterns (B10)	
Saturatio	, ,		True Aqua	•	•			Season Water Table (C2)	
Water Ma			Hydrogen					ish Burrows (C8)	
	t Deposits (B2)		Oxidized F					ation Visible on Aerial Ima	gery (C9)
Drift Dep	osits (B3)		Presence	of Reduc	ed Iron (	C4)	Stunt	ed or Stressed Plants (D1)	
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soils	s (C6) Geon	norphic Position (D2)	
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		FAC-	Neutral Test (D5)	
	on Visible on Aerial In	0 , ,	Gauge or	Well Data	a (D9)				
Sparsely	Vegetated Concave	Surface (B8	3) Other (Exp	olain in R	emarks)				
Field Observ	vations:								
Surface Water	er Present? Yes	<u> </u>	No X	Depth (ii	nches): _				
Water Table	Present? Yes	<u> </u>	No X		nches): _				
Saturation P		<u> </u>	No X	Depth (ii	nches): _		Wetland Hydrolog	gy Present? Yes	No X
(includes cap									
Describe Red	corded Data (stream	gauge, mon	itoring well, aeria	I photos,	previous	inspec	tions), if available:		
Demonstra									
Remarks: No hydrology indicators present.									
140 Hydrology	maioators present.								

Site: Crooksvi	lle-North Newark 138 kV Transmission Line Rebu	uild Project <b>[</b>	ect <b>Date:</b> June 5, 2020			
Wetland: v	v-bl-20200605-06	F	ater: BL, SI	M		
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts)  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)  x <0.1 acres (0.04ha) (0 pts)					
1 1 Subtotal Points	Metric 2. Upland buffers and surrounding  2a. Calculate average buffer width (select one, do not do  WIDE. Buffers average 50m (164ft) or mo  MEDIUM. Buffers average 25m to <50m ( NARROW. Buffers average 10m to <25m  x VERY NARROW. Buffers average <10m (  2b. Intensity of surrounding land use (select one or doub)  VERY LOW. 2nd growth or older forest, pr  LOW. Old field (>10 years), shrubland, you  MODERATELY HIGH. Residential, fenced  x HIGH. Urban, industrial, open pasture, row	nuble check) re around wetland page to <164ft) around (32ft to <82ft) around (32ft) around wetland page to <42ft) around wetland page to check & average airie, savannah, willing second growth pasture, park, controlled to the check of the c	perimeter (7) If wetland perimeter (4) Ind wetland perimeter (0) Ind perimeter (0) Indifference (7) Indiffer	1)		
16 15 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime.  (select one or double check & average)  x None or none apparent (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)	3d. Du (s (s	Part of wetland/up Part of riparian or ration inundation/satur elect one or double ch Semi- to permane Regularly inundat Seasonally inundat x Seasonally satura  eck all disturbance fine	n (1) ake and other human use (1) aland (e.g. forest), complex (1) upland corridor (1) ation. eck & average) ntly inundated/saturated (4) ed/saturated (3) ated (2) ted in upper 30cm (12in) (1)		
22 6 Subtotal Points	Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  x Poor (1)  Good (5)  mowin  grazir  grazir  grazir  grazir  grazir	and average.  4c. H.  4c. H.  (all disturbance)	Abitat alteration. Score None or none app Recovered (6) X Recovering (3) Recent or no reco	one or double check and average. earent (9)  very (1)  bling removal  us/aquatic bed removal  ation		

22 subtotal this page

O'CAN V. 5.0 T leid T O'TH Quantil	auve raung		<b>I</b>	
	North Newark	t 138 kV Transmission Line Rebuil		June 5, 2020
Wetland: w-bl	I-20200605-06	6	Rater:	BL, SM
22 subtotal first pa	age			
22 0	Metric 5. Sp	pecial Wetlands. (max 10 pts.)		
Subtotal Points	Check all that a	pply and score as indicated		
		Bog (10 pts)		
		Fen (10 pts)		
		Old Growth Forest (10 pts)		
		Mature forested wetland (5 pts)	- <b>4 4 4 4</b>	- W. (40 mts)
	<u> </u>	Lake Erie coastal/tributary wetland-unre Lake Erie coastal/tributary wetland-restr	-	
		Lake Plain Sand Prairies (Oak Openings		y (5 pts)
		Relict Wet Prairies (10 pts)	) (10 pto)	
		Known occurrence state/federal threater	ned or endang	ered species (10)
		Significant migatory songbird/waterfowl	habitat or usa	ge (10 pts)
		Category 1 Wetland. See Question 1 of	Qualitative R	ating. (-10 pts)
00	M ( ) 0 DI			
26 4		ant Communities, interspersion	, microtop	ograpny. (max 20 pts.)
Subtotal Points		egetation Communities In tusing 0 to 3 scale	Venetatio	n Community Cover Scale
	ocore an preser	Aquatic bed	T T	•
	2	Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
		Shrub		December of sittle and
		Forest	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
		Mudflats		
		Open water		Present and either comprises significant part of wetland's vegetation
		Other (list)	2	and is of moderate quality or comprises a small part and is of high quality
	6b. Horizontal (	(plan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		High (5)		
		Moderately high (4)	Narrative	Description of Vegetation Quality
		Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance
		Moderately low (2)		tolerant native species
	x 6c. Coverage o	Low (1) None (0) If invasive plants.	moderate	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 threatened or endangered spp
	-	ORAM long form for list.		A predominance of native species, with nonnative spp and/or
	Add or deduct p	oints for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp
		Extensive >75 % cover (-5)		diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Moderate 25-75% cover (-3)		critical gerea spp
		Sparse 5-25% cover (-1) Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	X		0	Absent <0.1 ha (0.2471 acres)
			1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopogi	<u>raphy</u>	3	High 4 ha (9.88 acres) or more
		nt using 0 to 3 scale		
	1	Vegetated hummocks/tussocks		ography Cover Scale
	0	Coarse woody debris >15 cm (6")	0	Absent
	0	Standing dead > 25 cm (10") dbh  Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

**Project No.** 60616110

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

Wetland 054

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 054

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 054

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing South



#### Wetland 054

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 054

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



### Wetland 055

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Line	e Rebuild Proje	ct City/Cou	nty: Perry Co	ounty	Sampling Date:	06/05/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-bl-20200605-07
Investigator(s): SM, BL		Section, T	ownship, Ran	ge: S 18 T 17N R 15V	V	
Landform (hillside, terrace, etc.): swale			_ocal relief (co	oncave, convex, none):	concave	
Slope (%): 10 Lat: 39.87823		Long: -	82.22771	· <del>-</del>	Datum: NAD 83	
Soil Map Unit Name: GwD - Guernsey-Westmoreland s	ilt loams, 15				ication: N/A	
Are climatic / hydrologic conditions on the site typical fo			Yes x			
Are Vegetation, Soil, or Hydrologys		•		ircumstances" present?		0
Are Vegetation, Soil, or Hydrologyn				lain any answers in Rer		
SUMMARY OF FINDINGS – Attach site ma			·	•	,	tures, etc.
Hydrophytic Vegetation Present? Yes X No		ls tho	Sampled Are	22		
			a Wetland?		No	
Wetland Hydrology Present? Yes X No						
Remarks:		<u> </u>				
Sampling point (w-bl-20200605-07) in for PEM Wetlan	d 055. Wet s	wale at head	of intermitten	t Stream 052 in pasture.	Wetland fully delir	ieated.
<b>VEGETATION</b> – Use scientific names of plan	nts.					
True Otratum (Plataine 200)	Absolute	Dominant	Indicator	Daminana Tarkana	lanka aka	
Tree Stratum (Plot size: 30' ) 1.	% Cover	Species?	Status	Dominance Test wor		
				Number of Dominant S Are OBL, FACW, or F.		2 (A)
3				Total Number of Domi		(/ \/
4.				Across All Strata:	nant opecies	4 (B)
5.				Percent of Dominant S	Species That	``
	=	Total Cover		Are OBL, FACW, or F	•	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )					•	
Rubus occidentalis	5	Yes	UPL	Prevalence Index wo		
2.				Total % Cover of		
3.				OBL species 27		27
5.				FACW species 25		50 69
J	5 =	Total Cover		FACU species 15		60
Herb Stratum (Plot size: 5' )		10101 00101		UPL species 5		25
1. Juncus tenuis	20	Yes	FAC	Column Totals: 95		231 (B)
2. Bromus inermis	15	Yes	FACU	Prevalence Index	B/A = 2.43	
3. Carex lurida	15	Yes	OBL			
4. Impatiens pallida	10	No	FACW	Hydrophytic Vegetat	ion Indicators:	
5. Scirpus atrovirens	10	No	OBL		Hydrophytic Veget	ation
6. Agrostis gigantea	10	<u>No</u>	FACW	2 - Dominance Te		
7. Poa palustris	5	No	FACW	X 3 - Prevalence Inc		
8. Rumex crispus	2	No No	FAC		Adaptations <sup>1</sup> (Prov s or on a separate	
9. Rumex verticillatus 10.		<u>No</u>	OBL_		ophytic Vegetation	
10	90 =	Total Cover		<sup>1</sup> Indicators of hydric so		
Woody Vine Stratum (Plot size: 30' )				be present, unless dis	•	0,
1.				Hydrophytic	·	
2.				Vegetation		
	=	Total Cover		Present? Yes	X No	_
Remarks: (Include photo numbers here or on a separa	ate sheet.)		I			
Hydrophytic vegetation indicator present as prevalence	e index < 3.0					

SOIL Sampling Point: bl-20200605-

Profile Desc Depth	ription: (Describe Matrix	to the dep	o the depth needed to document the indicator or Redox Features			tor or c	onfirm the absence of indicators.)			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-1	10YR 4/2	100					Loamy/Clayey	silty clay loam		
1-17	2.5Y 4/1	90	10YR 4/6	10	С	M	Loamy/Clayey	city day ream		
1-17	2.51 4/1	90	1011 4/0	10		IVI	Loamy/Clayey			
-										
<sup>1</sup> Type: C=Cc	ncentration, D=Dep	letion, RM	=Reduced Matrix, N	/IS=Mas	ked Sand	d Grains	Location:	PL=Pore Lining, M=Matrix.		
Hydric Soil I								s for Problematic Hydric Soils <sup>3</sup> :		
Histosol (	(A1)		Sandy Gle	yed Mat	rix (S4)		? Coast	Prairie Redox (A16)		
Histic Epi	pedon (A2)		Sandy Red	lox (S5)			Iron-M	langanese Masses (F12)		
Black Histic (A3) Stripped Matrix (S6)						Red P	Parent Material (F21)			
Hydroger	Sulfide (A4)		Dark Surfa	ce (S7)				Shallow Dark Surface (F22)		
Stratified Layers (A5) Loamy Mucky Mineral (F1)							Other	(Explain in Remarks)		
2 cm Mud	,		Loamy Gle	-						
	Below Dark Surface	e (A11)	X Depleted N	,	•		3			
Thick Dark Surface (A12)  Redox Dark Surface (F6)						s of hydrophytic vegetation and				
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)					1		nd hydrology must be present,			
5 cm Mucky Peat or Peat (S3)  ? Redox Depressions (F8)  unless disturbed or problematic.										
	.ayer (if observed):									
Type:										
Depth (in	cnes):						Hydric Soil Present	? Yes X No		
Remarks:										
	n is revised from Mi 2018. (https://www.r							of Hydric Soils in the United States,		
								in a closed depression subject to		
ponding.	•		5				,	,		
HYDROLO	GY									
	Irology Indicators:									
_	ators (minimum of c		red: check all that a	annly)			Secondary	/ Indicators (minimum of two required)		
	Vater (A1)	no io roqui	Water-Stai		ves (B9)			ce Soil Cracks (B6)		
	er Table (A2)		Aquatic Fa					age Patterns (B10)		
X Saturatio			True Aqua					eason Water Table (C2)		
Water Ma			Hydrogen		-	)		sh Burrows (C8)		
	Deposits (B2)		X Oxidized R	hizosph	eres on l	_iving Ro	oots (C3) Satura	ation Visible on Aerial Imagery (C9)		
Drift Dep	osits (B3)		Presence of	of Reduc	ed Iron (	(C4)	Stunte	ed or Stressed Plants (D1)		
Algal Mat	or Crust (B4)		Recent Iron	n Reduc	tion in Ti	lled Soils	s (C6) X Geom	orphic Position (D2)		
Iron Depo	osits (B5)		Thin Muck	Surface	(C7)		FAC-N	Neutral Test (D5)		
	n Visible on Aerial I	0 , (	<i>'</i> —		, ,					
Sparsely	Vegetated Concave	e Surface (I	38) Other (Exp	lain in R	temarks)					
Field Observ										
Surface Water	er Present? Ye	es	No X	Depth (i	nches): _	0				
Water Table				Depth (i	′ =	11				
Saturation Pr		es X	No	Depth (i	nches): _	0	Wetland Hydrolog	y Present? Yes X No No		
(includes capillary fringe)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks:										
	ary and secondary h	nydrology ir	ndicators present. F	Primary s	source of	hydrolo	gy is concentration of p	precipitation and surface runoff in		
								east to Muskingum River, a TNW.		

ite: Crooksville	titative Rating -North Newark 138 kV Transmission L	ine Rebuild Project	Date:	June 5, 2020
Vetland: w-l	ol-20200605-07		Rater:	BL, SM
0 0 ubtotal Points	Metric 1. Wetland Area (size). (ma  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (3  3 to <10 acres (1.2 to <4ha) (3)  0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12  x <0.1 acres (0.04ha) (0 pts)	a) (5 pts) (4 pts) pts) (2pts)		
4 4 4 ubtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one  WIDE. Buffers average 50m (1  MEDIUM. Buffers average 25m  X NARROW. Buffers average 10  VERY NARROW. Buffers average 12b. Intensity of surrounding land use (select of	e, do not double check) 64ft) or more around wetla n to <50m (82 to <164ft) aro m to <25m (32ft to <82ft) a age <10m (<32ft) around w	nd perimeter (7 pund wetland pe around wetland vetland perimete	perimeter (4)
	VERY LOW. 2nd growth or old  x LOW. Old field (>10 years), shi  MODERATELY HIGH. Resider  x HIGH. Urban, industrial, open p	rubland, young second grountial, fenced pasture, park,	wth forest. (5) conservation till	lage, new fallow field. (3)
21 17 ubtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake of the seasonal of the seas	rater (3) r stream) (5)  3d	100 yes   X   Between   Part of   X   Part of   Part of	Score all that apply. ear floodplain (1) en stream/lake and other human use (1) f wetland/upland (e.g. forest), complex (1) f riparian or upland corridor (1)  dation/saturation. r double check & average) to permanently inundated/saturated (4) early inundated/saturated (3) early inundated (2) early saturated in upper 30cm (12in) (1)  sturbances observed  point source (nonstormwater) filling/grading early dredging early dredging
31 10 libtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or doc  X None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2)	evelopment. (max 2 able check and average.	. Habitat altera None of Recov X Recov Recen nces observe	tion. Score one or double check and average. or none apparent (9) ered (6) ering (3) t or no recovery (1)

31 subtotal this page

Site: Crooksville		138 kV Transmission Line Rebuil	Date:	June 5, 2020
	-bl-20200605-07		Rater:	BL, SM
31 subtotal first				
31 0	Metric 5. Sp	ecial Wetlands. (max 10 pts.)		
Subtotal Points	Check all that app	ply and score as indicated		
		Bog (10 pts)		
		Fen (10 pts)		
		Old Growth Forest (10 pts)		
		Mature forested wetland (5 pts)		
		Lake Erie coastal/tributary wetland-unre	stricted hydrol	ogy (10 pts)
		Lake Erie coastal/tributary wetland-restr	icted hydrolog	y (5 pts)
		Lake Plain Sand Prairies (Oak Openings	s) (10 pts)	
		Relict Wet Prairies (10 pts)		
		Known occurrence state/federal threater	_	
		Significant migatory songbird/waterfowl		
		Category 1 Wetland. See Question 1 of	Qualitative R	ating. (-10 pts)
38 7 Subtotal Points		int Communities, interspersion	, microtop	ography. (max 20 pts.)
Cubiciai i cinto		using 0 to 3 scale	Vegetatio	n Community Cover Scale
		Aquatic bed		
	2	Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	0	Shrub		
		Forest	1	Present and either comprises small part of wetland's vegetation and is
		Mudflats		of moderate quality, or comprises a significant part but is of low quality
		Open water		Present and either comprises significant part of wetland's vegetation
		Other (list)	2	and is of moderate quality or comprises a small part and is of high
	<u></u>	•		quality
	6b. Horizontal (p	lan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation
	Select only one	1		and is of high quality
		High (5)		
		Moderately high (4)	Narrative	Description of Vegetation Quality
		Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance
		Moderately low (2)		tolerant native species
	6c. Coverage of	Low (1) None (0)	moderate	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 threatened or endangered spp
		ORAM long form for list.		A modernia was a finalization of the control of the
	Add or deduct po	o a constant of the constant o		A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp
		Extensive >75 % cover (-5)	high	diversity and often, but not always, the presence of rare, threatened, or
		Moderate 25-75% cover (-3)		endangered spp
		Sparse 5-25% cover (-1)	-	+
		Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	X	Absent (1)	0	Absent <0.1 ha (0.2471 acres)
			1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopogra	a <u>phy</u>	3	High 4 ha (9.88 acres) or more
	Score all present	using 0 to 3 scale		
	2	Vegetated hummocks/tussocks		ography Cover Scale
	1	Coarse woody debris >15 cm (6")	0	Absent
	0	Standing dead > 25 cm (10") dbh Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 055

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 055

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 055

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 055

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Facing West





Site Location:

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

**Project No.** 60616110

#### Wetland 055

**Client Name:** 

Date:

June 5, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission	Line City/Cou	inty: Perry C	ounty	Sampling Date:	06/11/2020
Applicant/Owner: AEP			State: OH	Sampling Point:	w-aeh-200611-06a
Investigator(s): AEH, SKM	Section,	Γownship, Rai	nge: S18 T17N R15W		
Landform (hillside, terrace, etc.): hillside		Local relief (c	concave, convex, none):	concave	
Slope (%): 5 Lat: 39.87882	Long: ·	-82.22844	_	Datum: NAD83	
Soil Map Unit Name: GdC - Gilpin silt loam, 8 to 15 percent s				ication: N/A	
Are climatic / hydrologic conditions on the site typical for this	time of year?	Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation , Soil , or Hydrology signific	:antly disturbed?	Are "Normal C	Circumstances" present?	•	
Are Vegetation , Soil , or Hydrology natural			plain any answers in Rer		
SUMMARY OF FINDINGS – Attach site map sh		•		ŕ	ures, etc.
Hydrophytic Vegetation Present? Yes X No	Is the	e Sampled Ar	rea		
Hydric Soil Present? Yes X No	_	n a Wetland?		No	
Wetland Hydrology Present? Yes X No	_				
Remarks:	<del></del>				
Sample point w-aeh-20200622-06a is point in to PEM Wetla drains to east to intermittent Stream 053.	nd 056a, a PEM/PF	O wetland co	mplex. Wetland extends	to west outside stud	ly area,
VEGETATION – Use scientific names of plants.					
	olute Dominant	Indicator			
Tree Stratum (Plot size: 30' ) % C	Sover Species?	Status	Dominance Test wor		
1. 2.			Number of Dominant : Are OBL, FACW, or F		3 (A)
3.	<del></del>				<u> </u>
4.			Total Number of Dom Across All Strata:	•	3 (B)
5.			Percent of Dominant S	Species That	``
	=Total Cover		Are OBL, FACW, or F	•	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )					
1			Prevalence Index wo	rksheet:	
2.			Total % Cover of		
3			OBL species 59		55
4			FACW species 29 FAC species 0		5 <u>0</u> 0
o	=Total Cover		FACU species 0		0
Herb Stratum (Plot size: 5' )			UPL species 0		0
\	l0 Yes	OBL	Column Totals: 80		05 (B)
2. Scirpus atrovirens 1	5 Yes	OBL	Prevalence Index		
3. Agrostis gigantea 1	5 Yes	FACW		'	
4. Carex vulpinoidea	5 No	FACW	Hydrophytic Vegetat	ion Indicators:	
5. Impatiens capensis	5 No	FACW	X 1 - Rapid Test for		ıtion
6			X 2 - Dominance Te		
7			X 3 - Prevalence Inc		
8				Adaptations <sup>1</sup> (Provid s or on a separate s	
9				ophytic Vegetation <sup>1</sup>	
10	=Total Cover				
Woody Vine Stratum (Plot size: 30')	1000000		<sup>1</sup> Indicators of hydric se be present, unless dis		
1			·	<u>'</u>	
2.			Hydrophytic Vegetation		
	=Total Cover		Present? Yes	X No	_
Remarks: (Include photo numbers here or on a separate sh	eet.)				
Hydrophytic vegetation indicators present as rapid test, dom	inant species are O	BL and FACV	V		

US Army Corps of Engineers

SOIL Sampling Point: aeh-200611-0

Profile Desc	ription: (Describe	to the dept	h needed to doc	ument th	ne indica	tor or c	confirm the absence of	of indicators.)	
Depth	Matrix			x Featur					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-18	10YR 6/1	80	10YR 6/6	20	С	PL	Loamy/Clayey	Prominent redox concentrations	
1- 0.0							2, ,,		
Hydric Soil	oncentration, D=Dep	etion, RIM=	Reduced Matrix, I	VIS=Mas	ked Sand	Grains		: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :	
Histosol			Sandy Gle	wed Mat	riv (S1)			t Prairie Redox (A16)	
	ipedon (A2)		Sandy Re	-				Manganese Masses (F12)	
Black His			Stripped M					Parent Material (F21)	
	n Sulfide (A4)		Dark Surfa	•	-,			Shallow Dark Surface (F22)	
	Layers (A5)		Loamy Mu	, ,	eral (F1)			(Explain in Remarks)	
2 cm Mu			Loamy Gle	-			<del></del> -	,	
	Below Dark Surface	(A11)	X Depleted I	-					
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and	
Sandy Mucky Mineral (S1)  Depleted Dark Surface (F7)						wetla	nd hydrology must be present,		
5 cm Mucky Peat or Peat (S3) x Redox Depressions (F8)							unless disturbed or problematic.		
Restrictive Layer (if observed):									
Type:			<u></u>						
Depth (in	ches):		<u> </u>				<b>Hydric Soil Present</b>	? Yes X No	
Remarks:	Remarks:								
								of Hydric Soils in the United States,	
	2018. (https://www.n							and to at the month of	
Hydric soil in	dicator present as lo	w chroma/h	igh value matrix v	vith redo	x concen	rations	in a closed depression	subject to ponding	
HYDROLO	GY								
Wetland Hyd	drology Indicators:								
	ators (minimum of o	ne is requir	ed; check all that	apply)			<u>Secondar</u>	y Indicators (minimum of two required)	
Surface \	Nater (A1)		Water-Sta				Surfa	ce Soil Cracks (B6)	
High Wa	ter Table (A2)		Aquatic Fa	auna (B1	3)		Drain	age Patterns (B10)	
Saturatio	` '		True Aqua					Season Water Table (C2)	
Water Ma			Hydrogen					ish Burrows (C8)	
	t Deposits (B2)		Oxidized F			_		ation Visible on Aerial Imagery (C9)	
x Drift Dep			Presence		,	,		ed or Stressed Plants (D1)	
	t or Crust (B4)		Recent Iro			ied Soil	` '	norphic Position (D2) Neutral Test (D5)	
	osits (B5) on Visible on Aerial Ir	nagery (R7	Thin Muck Gauge or				<u> </u>	Neutral Test (D3)	
	Vegetated Concave				` '				
Field Observ		Curiaco (B	Other (EX	Jiaiii iii i	terriarito)		1		
Surface Water		s	No x	Depth (i	nches).	0			
Water Table			No x	Depth (ii	· -				
Saturation P			No x	Depth (i	· -		Wetland Hydrolog	gy Present? Yes X No	
	(includes capillary fringe)								
,	• • •	gauge, mo	nitoring well, aeria	al photos	, previous	inspec	tions), if available:		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:									
								oncentration of surface runoff in	
geomorpnic i TNW.	Dosition. Wetland dra	iiris to east	io intermittent Str	eam 053	ınaı draii	is east	to Jonathan Creek that	t drains east to Muskingum River, a	

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transm	ission Line	City/Cou	nty: Perry Co	ounty	Sampling Date:	06/11/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-aeh-200611-06b
Investigator(s): AEH, SKM		Section, T	ownship, Rar	nge: S18 T17N R15W		
Landform (hillside, terrace, etc.): hillside			Local relief (c	oncave, convex, none):	concave	
Slope (%): 5 Lat: 39.87888		Long: -	82.22885	· <del>-</del>	Datum: NAD83	
Soil Map Unit Name: GdC - Gilpin silt loam, 8 to 15 per	cent slopes			NWI classif	ication: N/A	
Are climatic / hydrologic conditions on the site typical for			Yes x	No (If no, exp		
Are Vegetation, Soil, or Hydrologys		•		ircumstances" present?		)
Are Vegetation, Soil, or Hydrologyr				olain any answers in Rer		
SUMMARY OF FINDINGS – Attach site ma			·	•	*	ures, etc.
Hydrophytic Vegetation Present? Yes X No	`	le the	Sampled Ar	02		
<u> </u>	<u></u>		n a Wetland?		No	
Wetland Hydrology Present? Yes X No				<u></u>		
Remarks:						
Sample point w-aeh-20200622-06b is point in to PFO drains to east to intermittent Stream 053.	Wetland 056	6b, a PEM/PF	O wetland cor	nplex. Wetland extends	to west outside stud	dy area,
	nto					
<b>VEGETATION</b> – Use scientific names of pla	Absolute	Dominant	Indicator			
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor	ksheet:	
1. Acer rubrum	20	Yes	FAC	Number of Dominant S	Species That	
2. Ulmus americana	15	Yes	FACW	Are OBL, FACW, or F.		(A)
3. Salix nigra	5	No	OBL	Total Number of Domi	nant Species	
4				Across All Strata:		8 (B)
5				Percent of Dominant S	•	
0 1 0 1 0 1 0 1	40	=Total Cover		Are OBL, FACW, or F.	AC: 100	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )	F	V	ODI	Danielana da la danie		
1. Salix nigra 2.	5	Yes	OBL_	Prevalence Index wo Total % Cover of		, by:
3.				OBL species 65		65
4.				FACW species 60		120
5.				FAC species 20		60
	5 :	=Total Cover		FACU species 5	x 4 =	20
Herb Stratum (Plot size: 5' )				UPL species 0	x 5 =	0
Leersia oryzoides	30	Yes	OBL	Column Totals: 15	0 (A) 2	265 (B)
2. Carex frankii	20	Yes	OBL	Prevalence Index =	= B/A = 1.77	
3. Agrostis gigantea	15	Yes	FACW			
4. Impatiens capensis	15	Yes	FACW	Hydrophytic Vegetat		
5. Carex vulpinoidea	15	Yes	FACW		Hydrophytic Vegeta	ation
6. Solidago canadensis	5	No No	<u>FACU</u>	X 2 - Dominance Te		
7. Scirpus atrovirens	5	No	OBL_	X 3 - Prevalence Inc		
8 9.					Adaptations <sup>1</sup> (Provi s or on a separate	
910.					ophytic Vegetation <sup>1</sup>	•
10	105	Total Cover		<sup>1</sup> Indicators of hydric so		
Woody Vine Stratum (Plot size: 30')				be present, unless dis		
1.				Hydrophytic	•	
2.				Vegetation		
		Total Cover		Present? Yes_	X No	_
Remarks: (Include photo numbers here or on a separ						
Hydrophytic vegetation indicators present as dominan	ce test > 50°	%, dominant s	pecies are Ol	BL, FACW and FAC		

SOIL Sampling Point: aeh-200611-(

		to the dept				tor or c	onfirm the absence o	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 6/1	85	10YR 6/6	15	С	PL	Loamy/Clayey	Prominent redox concentrations
<sup>1</sup> Type: C=Co	oncentration, D=De	pletion, RM=	Reduced Matrix, I	MS=Masl	ked Sand	d Grains	Location:	: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:							s for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gle	eyed Matı	rix (S4)		? Coas	t Prairie Redox (A16)
Histic Ep	ipedon (A2)		Sandy Re	dox (S5)			Iron-N	Manganese Masses (F12)
Black His	stic (A3)		Stripped N	•	6)		Red F	Parent Material (F21)
Hydroge	n Sulfide (A4)		Dark Surfa	ace (S7)			Very	Shallow Dark Surface (F22)
Stratified	l Layers (A5)		Loamy Μι	icky Mine	eral (F1)		Other	(Explain in Remarks)
2 cm Mu	ck (A10)		Loamy Gle	eyed Mat	rix (F2)			
Depleted	Below Dark Surfac	ce (A11)	X Depleted I	Matrix (F	3)			
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)			Depleted I	Dark Surf	face (F7)			nd hydrology must be present,
5 cm Mucky Peat or Peat (S3)Redox Depressions (F8)						unles	s disturbed or problematic.	
Restrictive I	Layer (if observed	):						
Type:								
Depth (ir	nches):						<b>Hydric Soil Present</b>	? Yes X No
Remarks:								
								of Hydric Soils in the United States,
	2018. (https://www.			OCUME	NTS/nrcs	142p2_	_053171.pdf)	
Hydric soil in	dicator present as I	ow chroma/h	igh value matrix					
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one is require	ed; check all that	apply)			Secondar	y Indicators (minimum of two required)
Surface	Water (A1)		Water-Sta	ined Lea	ves (B9)		Surfa	ce Soil Cracks (B6)
X High Wa	ter Table (A2)		Aquatic Fa	auna (B1	3)		x Drain	age Patterns (B10)
X Saturation	on (A3)		True Aqua	atic Plants	s (B14)		Dry-S	season Water Table (C2)
Water M	arks (B1)		Hydrogen	Sulfide C	Odor (C1)	)	Crayf	ish Burrows (C8)
Sedimen	t Deposits (B2)		Oxidized F	Rhizosph	eres on l	iving R	oots (C3) Satur	ation Visible on Aerial Imagery (C9)
x Drift Dep	osits (B3)		Presence			-		ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro	n Reduc	tion in Ti	led Soil	s (C6) <u>x</u> Geom	norphic Position (D2)
Iron Dep	osits (B5)		Thin Muck		-		X FAC-	Neutral Test (D5)
	on Visible on Aerial							
Sparsely	Vegetated Concav	e Surface (B	8) Other (Ex	plain in R	emarks)			
Field Obser	vations:							
Surface Wat	er Present? Y	es	No <u>x</u>	Depth (ir	nches):	0		
Water Table	Present? Y	es x	No	Depth (ir	nches):	6		
Saturation P	resent? Y	es x	No	Depth (ir	nches): _	0	Wetland Hydrolog	gy Present? Yes X No No
(includes cap								
Describe Re	corded Data (strear	n gauge, mo	nitoring well, aeria	al photos,	previous	s inspec	tions), if available:	
Remarks:	ary and secondary	hydrology in	dicatore present	Priman, a	oure of h	vdrolog	v is precipitation and a	oncentration of surface runoff in
	,	, ,,	•	•		, ,		t drains east to Muskingum River, a
TNW.				300	2.31			

### Upland 059

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Trans	smission Line	City/Cou	inty: Perry C	county	Sampling Dat	te: 06/11/20	020_
Applicant/Owner: AEP				State: OH	Sampling Poir	nt: upl-aeh-200	0611-06
Investigator(s): AEH, SKM		Section, T	Township, Ra	inge: S18 T17N R15V			
Landform (hillside, terrace, etc.): hillside			Local relief (c	concave, convex, none)	): convex		
Slope (%): 5 Lat: 39.87879			82.22838	•	Datum: NAD83		
Soil Map Unit Name: GdC - Gilpin silt loam, 8 to 15	percent slopes			NWI class			
Are climatic / hydrologic conditions on the site typica			Yes x	No (If no, ex		: )	
Are Vegetation , Soil , or Hydrology		•		Circumstances" present			
Are Vegetation, Soil, or Hydrology				plain any answers in R	<del></del>		
SUMMARY OF FINDINGS – Attach site i					•	eatures, e	tc.
	<u> </u>	<del>-                                    </del>		<u> </u>			
	No X		e Sampled Ai n a Wetland?		No X		
	No X	********	I a Houana.				
Remarks:							-
Sample point Upland 059 (upl-aeh-20200611-06) p met.	oint out to Wetl	and 056, abou	ut 5 feet east	of boundary. Not a wet	tland point as no v	vetland criter	ia
VEGETATION – Use scientific names of p	olants.						
The Charles (Distains 20)	Absolute	Dominant Species?	Indicator	Daminana Toot w			
Tree Stratum (Plot size: 30' ) 1.	% Cover	Species?	Status	Dominance Test we			
2.				Number of Dominan Are OBL, FACW, or	•	1 (A	4)
3.				Total Number of Dor			',
4.				Across All Strata:		3 (E	3)
5.				Percent of Dominant	t Species That		
	;	=Total Cover	_	Are OBL, FACW, or	FAC:	33.3% (A	4/B)
Sapling/Shrub Stratum (Plot size: 15'	_)						
1. Rosa multiflora	10	Yes	FACU	Prevalence Index v		0.1.1	
2.				Total % Cover of		tiply by:	
3. 4.				OBL species FACW species	0 x 1 =	90	
5.				FACW species  FAC species	0 x 3 =	0	
	10	=Total Cover			72 x 4 =	288	
Herb Stratum (Plot size: 5' )		-10101 0010.		UPL species	0 x5=	0	
1. Solidago canadensis	45	Yes	FACU		117 (A)	378 (E	3)
Dichanthelium clandestinum	20	Yes	FACW	Prevalence Index		3.23	,
3. Carex scoparia	10	No	FACW		-		
4. Juncus dudleyi	10	No	FACW	Hydrophytic Veget	ation Indicators:		
5. Phleum pratense	10	No	FACU	1 - Rapid Test fo	or Hydrophytic Ve	getation	
6. Taraxacum officinale	5	No	FACU	2 - Dominance	Test is >50%		
7. Fraxinus pennsylvanica	5	No	FACW	3 - Prevalence I			
8. Allium cernuum	2	No	FACU		al Adaptations <sup>1</sup> (P		rting
9.					arks or on a separa		
10		Tatal Cover			drophytic Vegetati		
Woody Vine Stratum (Plot size: 30'	107	=Total Cover		<sup>1</sup> Indicators of hydric be present, unless d			ıst
Woody Vine Stratum (Plot size: 30' 1.	_'			·	ilsturbed or proble	mauc.	
2.				Hydrophytic			
	<del></del>	=Total Cover		Vegetation Present? Yes	s No	Х	
Remarks: (Include photo numbers here or on a seg				11000		<del></del>	
No hydrophytic vegetation indicators present as do		not > 50%, do	ominant spec	cies are FACW and FAC	CU. and prevalenc	ce index < 3.0	۵.
,			,		,		

US Army Corps of Engineers

Upland 059

SOIL Sampling Point: |-aeh-200611

		to the depth				tor or c	onfirm the absence	of indicators.)	
Depth	Matrix			x Featur		. 2	_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-18	10YR 4/3	100					Loamy/Clayey		
									_
								-	
	oncentration, D=Depl	etion, RM=F	Reduced Matrix, N	/IS=Mas	ked Sand	Grains		: PL=Pore Lining, M=Mat	•
Hydric Soil					. (0.1)			rs for Problematic Hydri	c Soils":
— Histosol			Sandy Gle					st Prairie Redox (A16)	
	ipedon (A2)		Sandy Red					Manganese Masses (F12)	)
Black His	` '		Stripped M	•	5)			Parent Material (F21)	20)
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F2	22)
	Layers (A5)		Loamy Mu	-			Othe	r (Explain in Remarks)	
2 cm Mu	, ,	(444)	Loamy Gle	•	, ,				
	Below Dark Surface	(A11)	Depleted N				<sup>3</sup> Indicator	rs of hydrophytic vegetation	on and
Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)						and hydrology must be pre			
	cky Peat or Peat (S3	١	Redox Der					ss disturbed or problemati	
		)	Redox Del	7 6551011	5 (1-0)		unies	ss disturbed of problemati	<u> </u>
	_ayer (if observed):								
Type:	ahaa\.		_				Hydria Cail Dragon	12 Vaa	No. V
Depth (in			_				Hydric Soil Presen	t? Yes	NoX
Remarks:				,			NDOO E' III I' I		
	m is revised from Mic 2018. (https://www.n	•						s of Hydric Soils in the Un	ited States,
	l indicators present.	103.4344.901	William OF OF	OOOWIL	1110/11103	142p2_	_00017 1.pdi)		
•	•								
HYDROLO	GY								
Wetland Hy	drology Indicators:								
_	ators (minimum of o	ne is require	d; check all that a	apply)			Seconda	ry Indicators (minimum of	two required)
-	Nater (A1)		Water-Stai		ves (B9)			ace Soil Cracks (B6)	· · · · ·
High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		 Drain	nage Patterns (B10)	
Saturation	n (A3)		True Aqua	tic Plant	s (B14)		Dry-S	Season Water Table (C2)	
Water M	arks (B1)		Hydrogen	Sulfide (	Odor (C1)		Cray	fish Burrows (C8)	
Sedimen	t Deposits (B2)		Oxidized R	hizosph	eres on L	iving Ro	oots (C3) Satu	ration Visible on Aerial Im	agery (C9)
Drift Dep	osits (B3)		Presence of	of Reduc	ced Iron (	C4)	Stunf	ted or Stressed Plants (D	1)
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soils		morphic Position (D2)	
	osits (B5)		Thin Muck				FAC-	Neutral Test (D5)	
	on Visible on Aerial Ir	0 , ,	Gauge or \						
Sparsely	Vegetated Concave	Surface (B8	Other (Exp	lain in R	temarks)		_		
Field Obser									
Surface Water		s			nches): _				
Water Table					nches): _		l		
Saturation P		s	No <u>x</u>	Depth (i	nches):		Wetland Hydrolog	gy Present? Yes	No X
(includes cap	· · · · · · · · · · · · · · · · · · ·		itaring well as :: -	l nhc+	n roud acco	lno	tions) if overlable:		
Describe Re	corded Data (stream	gauge, mon	itoring well, aerla	pnotos	, previous	ınspec	uons), ii avaliable:		
Remarks:									
	indicators present.								
, -9,	,								

Site: Crooks	sville-North Newark 138 kV Transmission Line	Rebuild Project	<b>Date:</b> June 11, 2020
Wetland:	w-aeh-20200611-07ab		Rater: AH, SM
2 2 Subtotal Points	Metric 1. Wetland Area (size). (max 6  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)  x 0.3 to <3 acres (0.12 to <1.2ha) (2p 0.1 to <0.3 acres (0.04 to <0.12ha) (0.1 acres (0.04ha) (0 pts)	5 pts) ts)	
8 6 Subtotal Points	Metric 2. Upland buffers and surroun  2a. Calculate average buffer width (select one, do  WIDE. Buffers average 50m (164ft  MEDIUM. Buffers average 25m to -  X NARROW. Buffers average 10m to  VERY NARROW. Buffers average  2b. Intensity of surrounding land use (select one of  X VERY LOW. 2nd growth or older for  X DOBERATELY HIGH. Residential,  HIGH. Urban, industrial, open pasto	ont double check) c) or more around wetle <50m (82 to <164ft) an o <25m (32ft to <82ft) <10m (<32ft) around v or double check & ave orest, prairie, savannah and, young second gro fenced pasture, park,	land perimeter (7) around wetland perimeter (4) ) around wetland perimeter (1) wetland perimeter (0)  erage) ah, wildlife area, etc. (7) rowth forest. (5) c, conservation tillage, new fallow field. (3)
21 13 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface water  Perennial surface water (lake or streen streen surface)  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  X <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime.  (select one or double check & average)  None or none apparent (12)  X Recovered (7)  Recovering (3)  Recent or no recovery (1)	r (3) eam) (5) 3d	Bb. Connectivity. Score all that apply.    100 year floodplain (1)     x
30 9 Subtotal Points	Good (5)  Moderately good (4)  x Fair (3)  Poor to fair (2)  Poor (1)	check and average.	20 pts.)  2c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  x Recovering (3)  Recent or no recovery (1)  ances observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

30 subtotal this page

Site: Crooksville-North Newark	139 kV Transmission Line Debuil	Dato:	June 11, 2020				
<b>Wetland:</b> w-aeh-20200611-0	J/ab	Rater:	AH, SM				
30 subtotal first page							
30 0 Metric 5. Spe	ecial Wetlands. (max 10 pts.)						
Subtotal Points <u>Check all that app</u>	ply and score as indicated						
	Bog (10 pts)						
	Fen (10 pts) Old Growth Forest (10 pts)						
	Mature forested wetland (5 pts)						
	Lake Erie coastal/tributary wetland-unre	stricted hydrol	ogy (10 pts)				
	Lake Erie coastal/tributary wetland-restr	icted hydrolog	y (5 pts)				
	Lake Plain Sand Prairies (Oak Openings	s) (10 pts)					
	Relict Wet Prairies (10 pts)						
	Known occurrence state/federal threater	_					
	Significant migatory songbird/waterfowl						
	Category 1 Wetland. See Question 1 of	Qualitative Ra	ating. (-10 pts)				
37 7 Metric 6. Pla	ant Communities, interspersion	, microtop	ography. (max 20 pts.)				
	getation Communities						
Score all present	using 0 to 3 scale	Vegetatio	n Community Cover Scale				
	Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area				
0	Emergent		, , ,				
2	Shrub	4	Present and either comprises small part of wetland's vegetation and is				
2	Forest Mudflats	1	of moderate quality, or comprises a significant part but is of low quality				
	Open water		Present and either comprises significant part of watland's vagatation				
	Other (list)	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				
6b. Horizontal (p	olan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation				
Select only one	1		and is of high quality				
	High (5)	Marrativa	Description of Vegetation Quality				
	Moderately high (4) Moderate (3)	Narrative	Low spp diversity and/or predominance of nonnative or disturbance				
	Moderate (3) Moderately low (2)	low	tolerant native species				
x	Low (1)		Native spp are dominant component of the vegetation, although				
6c. Coverage of	None (0)	moderate	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				
<del>-</del>	ORAM long form for list.		A predominance of native species, with nonnative spp and/or				
Add or deduct po	oints for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp				
	Extensive >75 % cover (-5)	mgn	diversity and often, but not always, the presence of rare, threatened, or				
	Moderate 25-75% cover (-3)		endangered spp				
	Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Quality				
x	Nearly Absent <5% cover (0) Absent (1)	0	Absent <0.1 ha (0.2471 acres)				
_ ^	]///	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)				
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)				
6d. Microtopogra	aphy	3	High 4 ha (9.88 acres) or more				
Score all present	using 0 to 3 scale						
2	Vegetated hummocks/tussocks		ography Cover Scale				
1	Coarse woody debris >15 cm (6")	0	Absent				
0	Standing dead > 25 cm (10") dbh Amphibian breeding pools	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 and of highest quality				



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 056a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 056a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 056a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 056a

Date:

June 4, 2020

**Description:** 

PEM wetland

Category 2

Facing West





Site Location:

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

**Project No.** 60616110

#### Wetland 056a

**Client Name:** 

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 056b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing North



#### Wetland 056b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 056b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing South



#### Wetland 056b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 056b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission	on Line	City/Cour	nty: Perry Cou	nty	Sai	mpling Date	: 06/11	1/2020
Applicant/Owner: AEP				State: C	OH Sar	mpling Point	i: w-aeh-:	200611-07a
Investigator(s): AEH, SKM		Section, T	ownship, Rang	e: S7 T17N R	R15W			
Landform (hillside, terrace, etc.): Hillside		ı	_ocal relief (cor	ncave, convex, r	none): conca	ave		
Slope (%): 3 Lat: 39.88309		Long: _{	82.23441		Datur	m: NAD83		
Soil Map Unit Name: GwD - Guernsey-Westmoreland silt I	loams, 15 t					n: N/A		
Are climatic / hydrologic conditions on the site typical for the				No (If			)	
Are Vegetation , Soil , or Hydrology sign	-	-		cumstances" pre				
Are Vegetation, Soil, or Hydrologynatu				in any answers				_
SUMMARY OF FINDINGS – Attach site map				-		•	atures,	, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled Area					
Hydric Soil Present? Yes X No			n a Wetland?		<u> </u>	lo		
Wetland Hydrology Present? Yes X No				•				
Remarks:								
Sample point w-aeh-20200611-07a is point in to PEM cor						located in o	drainage	swale
on hillside, drains to southwest out of study area, no defir		ogic connection	on present, pot	entially isolated	l.			
VEGETATION – Use scientific names of plants								
	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Te	est workshe	ot:		
1.	0 0040.	ороснос.		Number of Don				
2.				Are OBL, FAC	•	CS IIIGE	2	(A)
3.				Total Number of		Species		<u> </u>
4.				Across All Strat		· _	2	(B)
5.				Percent of Dom	•			_
	=	Total Cover		Are OBL, FAC	W, or FAC:	<u> </u>	100.0%	_(A/B)
Sapling/Shrub Stratum (Plot size: 15' )			F	<del></del>				
1				Prevalence Inc			- l., b.,,	
2. 3.	·		.	Total % Co	over of: 20	x 1 =	oly by: 20	-
				FACW species		x 1 =	160	-
5.	<del></del> -			FAC species	5	x3=	15	-
J		Total Cover		FACU species		x 4 =	0	-
Herb Stratum (Plot size: 5' )		10.0.		UPL species	0	x 5 =	0	-
1. Carex vulpinoidea	35	Yes		Column Totals:			195	(B)
2. Carex scoparia	20	Yes	FACW	Prevalence l			86	_` '
3. Carex lurida	10	No	OBL					
4. Impatiens capensis	10	No	FACW	Hydrophytic V	egetation lı	ndicators:		
5. Vitis riparia	10	No	FACW	X 1 - Rapid T	-		etation	
6. Poa pratensis	5	No	FAC	X 2 - Domina				
7. Eupatorium perfoliatum	5	No		X 3 - Prevale				
8. Scirpus atrovirens	<u>5</u> .	No	OBL		logical Adap	•		
9. <u>Dichanthelium clandestinum</u>	5	No	FACW		Remarks or o	•	,	
10	105 -	Total Cover			c Hydrophyt	•		,
Woody Vine Stratum (Plot size: 30' )	105 =	Total Cover		<sup>1</sup> Indicators of higher present, unle				must
1. (Plot size)				•	ess uisiui pe	a or problem	llatio.	
2.	·			Hydrophytic Vegetation				
		Total Cover		Vegetation Present?	Yes X	No		
Remarks: (Include photo numbers here or on a separate								
Hydrophytic vegetation indicators present as rapid test, d	,	pecies are OF	3L and FACW					
	-							

SOIL Sampling Point: aeh-200611-0

Profile Desc	cription: (Describe	to the dep	th needed to doc	ument th	ne indica	tor or c	confirm the absence of	of indicators.)
Depth	Matrix		Redo	x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR 5/1	95	10YR 6/6	5	С	pL	Loamy/Clayey	Prominent redox concentrations
6-18	10YR 5/1	70	10YR 6/6	30	C	pl	Loamy/Clayey	Prominent redox concentrations
1- 0.0		<del></del>					2, ,,	
Hydric Soil	oncentration, D=Dep	letion, RM=	Reduced Matrix, N	/IS=Mas	ked Sand	Grains		: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	ved Mati	iv (S4)			t Prairie Redox (A16)
	ipedon (A2)		Sandy Red	-	IX (04)			Manganese Masses (F12)
Black His			Stripped M		;)			Parent Material (F21)
	n Sulfide (A4)		Dark Surfa		')			Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu		eral (F1)			(Explain in Remarks)
2 cm Mu			Loamy Gle	-			<del></del>	,
	l Below Dark Surface	(A11)	X Depleted N	-				
Thick Da	rk Surface (A12)		Redox Dar	k Surfac	e (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted [	Oark Sur	ace (F7)		wetla	nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S3	5)	x Redox De	oression	s (F8)		unles	s disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (ir	nches):						<b>Hydric Soil Present</b>	? Yes X No
Remarks:								
								of Hydric Soils in the United States,
	2018. (https://www.n							
Hydric soil in	dicators present as i	ow chroma	/high value matrix	with proi	ninent re	dox cor	ncentrations in pore lini	ngs in depression subject to ponding.
HYDROLO	GY							
Wetland Hy	drology Indicators:							
-	cators (minimum of o	ne is requir	ed; check all that a	apply)			<u>Secondar</u>	y Indicators (minimum of two required)
Surface	Water (A1)		x Water-Stai		, ,		Surfa	ce Soil Cracks (B6)
High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		<u>x</u> Drain	age Patterns (B10)
Saturatio	` '		True Aqua					Season Water Table (C2)
	arks (B1)		Hydrogen					ish Burrows (C8)
	t Deposits (B2)		x Oxidized F			-		ation Visible on Aerial Imagery (C9)
x Drift Dep	` ,		Presence of		-			ed or Stressed Plants (D1)
	t or Crust (B4) osits (B5)		Recent Iro Thin Muck			ieu Soii		norphic Position (D2) Neutral Test (D5)
	on Visible on Aerial Ir	magery (B7			-		<u>X</u> 170-	Neutral Test (D3)
	Vegetated Concave							
Field Obser	vations:	`	,					
Surface Wat		S	No x	Depth (ii	nches):	0		
Water Table				Depth (ii	′ –			
Saturation P				Depth (ii	_		Wetland Hydrolog	gy Present? Yes X No
(includes car	oillary fringe)							
Describe Re	corded Data (stream	gauge, mo	nitoring well, aeria	l photos	previous	inspec	ctions), if available:	
Remarks:	t	76. 1	- 4- DEO		.41	<b>7</b> 1	EM/DEO " '	Lass Maddan dela della d
		•					EM/PFO wetland comp sent, potentially isolated	olex. Wetland located in drainage swale
on misiae, u	rams to southwest of	at or study i	aroa, no denned n	, ai ologic	JOHNEOU	on pies	one, potentially isolated	d.

Project/Site: Crooksville-North Newark 138 kV Transmi	ission Line	_ City/Cou	nty: Perry C	ounty	Sampling Dat	te: 06/11/2020
Applicant/Owner: AEP				State: OH	Sampling Poi	nt: w-aeh-200611-07b
Investigator(s): AEH, SKM		Section, T	ownship, Ra	inge: S7 T17N R15W	<u> </u>	
Landform (hillside, terrace, etc.): Hillside			Local relief (c	concave, convex, none)	: concave	
Slope (%): 3 Lat: 39.8830		Long: -	82.23453		Datum: NAD83	
Soil Map Unit Name: GwD - Guernsey-Westmoreland	silt loams, 15	to 25 percen	t slopes	NWI class	sification: N/A	
Are climatic / hydrologic conditions on the site typical fo	or this time o	f year?	Yes x	No (If no, ex	xplain in Remarks	s.)
Are Vegetation, Soil, or Hydrologys	significantly o	-		Circumstances" present		•
Are Vegetation, Soil, or Hydrologyr				cplain any answers in Re		<u>——</u>
SUMMARY OF FINDINGS – Attach site ma					•	eatures, etc.
Hydrophytic Vegetation Present? Yes X No	)	Is the	Sampled A	rea		
			n a Wetland?		No	
Wetland Hydrology Present? Yes X No	,					
Remarks: Sample point w-aeh-20200611-07b is point in to PFO on hillside, drains to southwest out of study area, no d	•			•	/etland located in	ı drainage swale
VEGETATION – Use scientific names of pla	nts.					
·	Absolute	Dominant	Indicator	<u> </u>		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wo		
1. Acer rubrum	40	Yes	FAC	Number of Dominant	•	2 (4)
Ulmus americana     3.	20	Yes	FACW	Are OBL, FACW, or	_	6 (A)
4.				Total Number of Dor Across All Strata:	ninant Species	7 (B)
5.					- Cassiss That	(5)
·	60	=Total Cover		Percent of Dominant Are OBL, FACW, or	•	85.7% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )					_	
1. Acer rubrum	45	Yes	FAC	Prevalence Index w	orksheet:	
2. Lindera benzoin	5	No	FACW	Total % Cover of	of: Mulf	tiply by:
3.				· —	5 x 1 =	5
4				· —	43 x 2 =	86
5				·	98 x 3 =	294
	50	=Total Cover		FACU species	5 x 4 =	20
Herb Stratum (Plot size: 5' )					0 x 5 =	0
1. Lindera benzoin	10	Yes	FACW		151 (A)	405 (B)
2. Acer rubrum	10	Yes	FAC	Prevalence Index	= B/A =2	2.68
3. Carex lurida	5	Yes	OBL	<u> </u>		
4. Parthenocissus quinquefolia	5	Yes	FACU	Hydrophytic Vegeta		
5. Impatiens capensis	3	<u>No</u>	FACW		or Hydrophytic Ve	getation
6. Toxicodendron radicans	3	No No	FAC	X 2 - Dominance T		
7. Persicaria pensylvanica	3	No No	FACW	X 3 - Prevalence Ir		
8. Fraxinus pennsylvanica	2	<u>No</u>	FACW		al Adaptations' (P rks or on a separa	Provide supporting rate sheet)
910.					drophytic Vegetati	
10	41	=Total Cover				
Woody Vine Stratum (Plot size: 30' )		- 10tai 00vo.		<sup>1</sup> Indicators of hydric be present, unless di		
1.					ottai bod o. p. o	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
2.				Hydrophytic Vegetation		
		=Total Cover			s X No	
Remarks: (Include photo numbers here or on a separ					<u></u>	<u> </u>
Hydrophytic vegetation indicators present as dominan	,	% dominant s	necies are O	RI FACW, FAC and F	ACU	
,		,	· · ·	<b></b> , ,		

SOIL Sampling Point: aeh-200611-(

	• •	to the dept				tor or c	confirm the absence of	of indicators.)
Depth	Matrix			x Featur		. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/1	95	10YR 6/8	5	<u>C</u>	PL	Loamy/Clayey	Prominent redox concentrations
4-18	10YR 4/1	95	10YR 6/8	5	С	PL	Loamy/Clayey	Prominent redox concentrations
		·						
	-							
<sup>1</sup> Typo: C=C	oncentration, D=Dep	lotion PM-	Poducod Matrix N	 19-Mac	kod Sano	Grains	<sup>2</sup> l ocation:	PL=Pore Lining, M=Matrix.
Hydric Soil		nedon, ixivi–	Reduced Matrix, I	/IO-IVIAS	Neu Sanc	Grains		s for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	ved Mat	rix (S4)			t Prairie Redox (A16)
	pipedon (A2)		Sandy Red	-				Manganese Masses (F12)
Black Hi			Stripped M					Parent Material (F21)
	n Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu	cky Mine	eral (F1)			(Explain in Remarks)
2 cm Mu	ck (A10)		Loamy Gle	yed Mat	rix (F2)			
X Depleted	l Below Dark Surfac	e (A11)	X Depleted N	/latrix (F	3)			
Thick Da	rk Surface (A12)		X Redox Dar	k Surfac	e (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted [	ark Sur	face (F7)		wetla	nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S	3)	Redox Dep	ression	s (F8)		unles	s disturbed or problematic.
Restrictive	Layer (if observed)	:						
Type:								
Depth (ir	nches):		_				Hydric Soil Present	? Yes <u>X</u> No
Version 8.2,	2018. (https://www.r	nrcs.usda.go	ov/Internet/FSE_D	OCUME	NTS/nrcs	142p2_	_053171.pdf)	of Hydric Soils in the United States,
HYDROLO	GY							
	drology Indicators:							
_	cators (minimum of		ed: check all that a	(vlage			Secondar	y Indicators (minimum of two required)
	Water (A1)		x Water-Stai		ves (B9)			ce Soil Cracks (B6)
High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		x Drain	age Patterns (B10)
Saturation	on (A3)		True Aqua	tic Plant	s (B14)		Dry-S	eason Water Table (C2)
Water M	arks (B1)		Hydrogen	Sulfide (	Odor (C1)		Crayf	ish Burrows (C8)
	t Deposits (B2)		x Oxidized F			-		ation Visible on Aerial Imagery (C9)
	oosits (B3)		Presence of			-		ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro			led Soil		norphic Position (D2)
	osits (B5)		Thin Muck				X FAC-	Neutral Test (D5)
	on Visible on Aerial I Vegetated Concave							
		Suriace (D	0)Other (Exp	iaiii iii N	terriarks)		-	
Field Obser Surface Wat		20	No v	Depth (i	nchee).	0		
Water Table				Depth (i	· -			
Saturation P				Depth (i	_		Wetland Hydrolog	y Present? Yes X No
(includes car			<u></u>	<b>-</b> (.				,, , , , , , , , , , , , , , , , , , ,
,	corded Data (stream	gauge, mo	nitoring well, aeria	l photos	, previous	inspec	tions), if available:	
Remarks:	ions and assemble:	vidrolog: : !	diagtors proceed to	Votlar-	drains +-	00114	oot outoids of study	no defined designed facture was and
	iary and secondary i potentially isolated.	iyarology in	uicators present. V	veuand	urairis to	รบนเทพ(	est outside of study are	ea, no defined drainage feature present
, ,	, issiated.							

Project/Site: Crooksville-North Newark 138 kV Trans	smission Line	City/Cou	unty: Perry C	County	Sampling Date:	06/11/2020
Applicant/Owner: AEP		<del>_</del>		State: OH	Sampling Point:	upl-aeh-200611-07
Investigator(s): AEH, SKM		Section, 7	Township, Ra	ange: S7 T17N R15W	· 	
Landform (hillside, terrace, etc.): hillside		_	Local relief (	concave, convex, none):	convex	
Slope (%): 10 Lat: 39.88316			-82.23457	· 	Datum: NAD83	
Soil Map Unit Name: GwD - Guernsey-Westmorelan	nd silt loams, 15			NWI classi	ification: N/A	
Are climatic / hydrologic conditions on the site typical		•	Yes x			
Are Vegetation , Soil , or Hydrology		•		Circumstances" present?		0
Are Vegetation , Soil , or Hydrology				κplain any answers in Re		
SUMMARY OF FINDINGS – Attach site r					•	tures, etc.
Hydrophytic Vegetation Present? Yes X	No	Is the	e Sampled A	rea		
	No X		n a Wetland		No X	
	No X				·	
Remarks:		1-4-5d 057 al	foot no	"-f baundany at agua	Lataration Not a we	U-u-I noint ac
Sample point Upland 060 (upl-aeh-20200611-07) is hydric soil and hydrology criteria not met.	s point out to vv	etland ∪57, au	bout 5 reet no	orth of boundary at equa	l elevation. Not a we	tland point as
<b>VEGETATION</b> – Use scientific names of p						
·	Absolute	Dominant	Indicator	T		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wo	rksheet:	
1.				Number of Dominant	•	^ /A\
2. 3.				Are OBL, FACW, or F		3 (A)
4.				Total Number of Dom Across All Strata:	ninant Species	6 (B)
5.				Percent of Dominant	Species That	
		=Total Cover		Are OBL, FACW, or f	•	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	_)					
Rosa multiflora	10	Yes	FACU	Prevalence Index w		
2. Juglans nigra	5	Yes	FACU	Total % Cover o		
3. Platanus occidentalis	5	Yes	FACW	· -		15
4				· -		50
5	20	=Total Cover			$\frac{0}{30}$ $x 3 = $	0 120
Herb Stratum (Plot size: 5' )		- I Ulai Govei			0 x 5 =	0
1. Dichanthelium clandestinum	15	Yes	FACW			185 (B)
2. Carex lurida	15	Yes	OBL	Prevalence Index		
3. Parthenocissus quinquefolia	10	Yes	FACU			
4. Verbesina alternifolia	5	No	FACW	Hydrophytic Vegeta		
5. Rosa multiflora	5	No	FACU	<u> </u>	r Hydrophytic Veget	ation
6.				2 - Dominance To		
7.				3 - Prevalence In		
8.					l Adaptations <sup>1</sup> (Prov ks or on a separate	
9					rophytic Vegetation <sup>1</sup>	,
10	50	=Total Cover				
Woody Vine Stratum (Plot size: 30'	)	- 10tal 00.0.		<sup>1</sup> Indicators of hydric s be present, unless di		
1.	<b>-</b> ′			Hydrophytic	Juli 2 2 - 1	
2.				Vegetation		
		=Total Cover		_	X No	<del>_</del>
Remarks: (Include photo numbers here or on a sep						
Hydrophytic vegetation indicator present as prevale	ence text < 3.0,	dominant spe	ecies are OBI	_, FACW and FACU		

Upland 060

SOIL Sampling Point: |-aeh-200611

		o the dept				tor or c	onfirm the absence o	of indicators.)	
Depth	Matrix			(Featur					
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-18	10YR 3/2	97	10YR 6/6	3	С	pl	Loamy/Clayey	Prominent redox cor	centrations
<sup>1</sup> Type: C=Co	ncentration, D=Depl	etion, RM=I	Reduced Matrix, M	IS=Mas	ked Sand	l Grains	. <sup>2</sup> Location	: PL=Pore Lining, M=Ma	ıtrix.
Hydric Soil I	ndicators:						Indicator	s for Problematic Hydr	ic Soils³:
Histosol (	A1)		Sandy Gley	∕ed Matı	rix (S4)		Coas	t Prairie Redox (A16)	
Histic Epi	pedon (A2)		Sandy Red	ox (S5)			Iron-N	Manganese Masses (F12	.)
Black His	` '		Stripped M	•	6)			Parent Material (F21)	
	Sulfide (A4)		Dark Surfa				Very	Shallow Dark Surface (F	22)
	Layers (A5)		Loamy Mud	-			Other	(Explain in Remarks)	
2 cm Mud	, ,		Loamy Gle						
	Below Dark Surface	(A11)	Depleted M				2		
	k Surface (A12)		Redox Dari		` '			s of hydrophytic vegetati	
	ucky Mineral (S1)		Depleted D		` '			nd hydrology must be pro	
5 cm Mud	cky Peat or Peat (S3)		Redox Dep	ression	s (F8)		unles	s disturbed or problemat	iC.
Restrictive L	ayer (if observed):								
Type:			_						
Depth (in	ches):		_				Hydric Soil Present	? Yes	NoX_
Remarks:	n is revised from Mid	west Regio	unal Sunnlement V	arsion 2	0 to incl	uda tha	NPCS Field Indicators	of Hydric Soils in the Ur	nited States
	2018. (https://www.nr							s of Flydric Solls III the Of	illed States,
							n 5% redox concentrat	tions in pore linings.	
HYDROLO	GY								
Wetland Hyd	rology Indicators:								
_	ators (minimum of or	ne is require	ed; check all that a	(ylqq			Secondar	y Indicators (minimum of	two required)
	Vater (A1)	•	Water-Stair		ves (B9)			ce Soil Cracks (B6)	<del></del>
High Wat	er Table (A2)		Aquatic Fa					age Patterns (B10)	
Saturation	n (A3)		True Aquat	ic Plant	s (B14)			Season Water Table (C2)	
Water Ma	ırks (B1)		Hydrogen S	Sulfide C	Odor (C1)		Crayf	ish Burrows (C8)	
Sediment	Deposits (B2)		Oxidized R	hizosph	eres on L	iving Ro	oots (C3) Satur	ation Visible on Aerial Im	agery (C9)
Drift Depo	osits (B3)		Presence of	f Reduc	ed Iron (	C4)	Stunt	ed or Stressed Plants (D	1)
Algal Mat	or Crust (B4)		Recent Iror	n Reduc	tion in Til	led Soils	s (C6) Geon	norphic Position (D2)	
Iron Depo	osits (B5)		Thin Muck	Surface	(C7)		FAC-	Neutral Test (D5)	
Inundatio	n Visible on Aerial In	nagery (B7)	Gauge or V	Vell Data	a (D9)				
Sparsely	Vegetated Concave	Surface (B	B) Other (Exp	lain in R	emarks)				
Field Observ									
Surface Water	r Present? Yes	·			nches): _				
Water Table I		·			nches): _				
Saturation Pr		·	No <u>x</u>	Depth (ii	nches): _		Wetland Hydrolog	gy Present? Yes	NoX_
(includes cap									
Describe Rec	orded Data (stream	gauge, mor	nitoring well, aerial	photos,	previous	inspec	tions), if available:		
Remarks:									
	indicators present,								
. to riyarology	maiodioro prodorit,								

Site: Crooksville	e-North Newark 138 kV Transmission I	Line Rebuild Project	Date:	June 11, 2020
Wetland: w-a	aeh-20200611-07ab	-	Rater:	AH, SM
		na) (5 pts) (4 pts) pts) ) (2pts) 2ha) (1 pt)  ounding land use. (not double check) 164ft) or more around wetland to <50m (82 to <164ft) ar	nax 14 pts)	AH, SM  (7)   perimeter (4)
28 16	VERY NARROW. Buffers aver  2b. Intensity of surrounding land use (select of the select	one or double check & average	rage) n, wildlife area with forest. (5) conservation	, etc. (7) ) tillage, new fallow field. (3)
Subtotal Points	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake of the seasonal	vater (3) or stream) (5) 3d	100 Betw X Part Part Duration inu (select one Reg Seas	y. Score all that apply. year floodplain (1) ween stream/lake and other human use (1) of wetland/upland (e.g. forest), complex (1) of riparian or upland corridor (1)  undation/saturation. e or double check & average) ni- to permanently inundated/saturated (4) ularly inundated/saturated (3) sonally inundated (2) sonally saturated in upper 30cm (12in) (1)
	(select one or double check & average  x None or none apparent (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)	e)	Check all of all	disturbances observed
39 11 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or doc  X None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7) Very good (6) Good (5) X Moderately good (4) Fair (3) Poor to fair (2) Poor (1)	uble check and average.	Reco	eration. Score one or double check and average. e or none apparent (9) overed (6) overing (3) ent or no recovery (1)  rved

39 subtotal this page

Site: Crooksville North News	ark 138 kV Transmission Line Rebu	iilDato:	luno 11, 2020
			June 11, 2020
Wetland: w-aeh-2020061	11-U/ab	Rater:	AH, SM
39 subtotal first page			
39 0 <b>Metric 5</b> .	Special Wetlands. (max 10 pts.)		
Subtotal Points <u>Check all tha</u>	at apply and score as indicated		
<u> </u>	Bog (10 pts)		
-	Fen (10 pts) Old Growth Forest (10 pts)		
-	Mature forested wetland (5 pts)		
	Lake Erie coastal/tributary wetland-unr	estricted hydrol	logy (10 pts)
	Lake Erie coastal/tributary wetland-res	-	
	Lake Plain Sand Prairies (Oak Opening	gs) (10 pts)	
	Relict Wet Prairies (10 pts)		
	Known occurrence state/federal threat	ened or endang	ered species (10)
_	Significant migatory songbird/waterfow		
	Category 1 Wetland. See Question 1 of	of Qualitative R	ating. (-10 pts)
48 9 <b>Metric 6</b> .	Plant Communities, interspersio	n. microton	ography (max 20 pts.)
	Vegetation Communities	п, ппоготор	ography. (max 20 pto.)
	sent using 0 to 3 scale	Vegetatio	n Community Cover Scale
	Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	2 Emergent	0	Absent of comprises 50.1 Ha (0.247 ) acres) configuous area
	Shrub		Present and either comprises small part of wetland's vegetation and is
_	0 Forest	1	of moderate quality, or comprises a significant part but is of low quality
_	Mudflats		
<u> </u>	Open water	2	Present and either comprises significant part of wetland's vegetation
L	Other (list)	2	and is of moderate quality or comprises a small part and is of high quality
<u>6b. Horizont</u>	tal (plan view) interspersion	2	Present and comprises significant part, or more, of wetland's vegetation
Select only o	one	3	and is of high quality
	High (5)		
_	Moderately high (4)	Narrative	Description of Vegetation Quality
_	x Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
_	Moderately low (2)		·
6c Coverage	Low (1) None (0)  se of invasive plants.	moderate	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 threatened or endangered spp
	le 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or
Add or deduc	ct points for coverage	high	disturbance tolerant native species, with normalive special disturbance tolerant native species, with normalive special disturbance tolerant native species, with normalive special disturbance species, with normalive species, and high specie
	Extensive >75 % cover (-5)	high	diversity and often, but not always, the presence of rare, threatened, or
	Moderate 25-75% cover (-3)		endangered spp
_	Sparse 5-25% cover (-1)	Mudflat -	nd Open Water Class Quality
-	Nearly Absent <5% cover (0)		nd Open Water Class Quality Absent <0.1 ha (0.2471 acres)
L	x Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
6d. Microtop	pography	3	High 4 ha (9.88 acres) or more
•	sent using 0 to 3 scale		
Ϊ	2 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale
	1 Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 057a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 057a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 057a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 057a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 057a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 057b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing North



#### Wetland 057b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 057b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing South



#### Wetland 057b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

Wetland 057b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmi	ssion Line	City/Cou	nty: Perry Co	ounty	Sampling Date:	06/11/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-aeh-200611-08
Investigator(s): AEH, SKM		Section, T	ownship, Rar	nge: S12 T17N R16V	N	
Landform (hillside, terrace, etc.): Hillside		ı	Local relief (c	oncave, convex, none)	): Concave	
Slope (%): 5 Lat: 39.88519			82.23737		Datum: NAD83	
Soil Map Unit Name: GwC - Guernsey-Westmoreland s	silt loams, 8					
Are climatic / hydrologic conditions on the site typical fo			Yes x		-	
Are Vegetation , Soil , or Hydrology s		•		Circumstances" present		0
Are Vegetation , Soil , or Hydrology n				plain any answers in R		
SUMMARY OF FINDINGS – Attach site ma			·		ŕ	tures, etc.
Hydrophytic Vegetation Present? Yes X No			Sampled Ar		<u> </u>	
	, <del></del>		n a Wetland?		No	
Wetland Hydrology Present? Yes X No			14	·		
Remarks:						
Sample point w-aeh-2020-611-08 point in to PEM Wet connectivity, potentially isolated.	land 058. W	etland fully de	lineated withi	in swale on hillside, no	downstream hydrolo	ogical
<b>VEGETATION</b> – Use scientific names of plan	nts					
·	Absolute	Dominant	Indicator			
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Dominance Test we	orksheet:	
1.				Number of Dominan	•	~ (4)
2.				Are OBL, FACW, or		2 (A)
3.				Total Number of Dor	minant Species	o (B)
4 5.				Across All Strata:	<u> </u>	2 (B)
5		=Total Cover		Percent of Dominant Are OBL, FACW, or	•	00.0% (A/B)
<u>Sapling/Shrub Stratum</u> (Plot size: 15' )		- Tutai Guvei		AIE ODE, I AOVV, OI	FAO. 10	10.070 (AID)
1			<u> </u>	Prevalence Index w	worksheet:	
2.				Total % Cover		y by:
3.				OBL species	55 x 1 =	55
4.				FACW species	73 x 2 =	146
5.				FAC species	0 x 3 =	0
	:	=Total Cover		FACU species	0 x 4 =	0
Herb Stratum (Plot size: 5')					0 x 5 =	0
1. Carex crinita	45	Yes	OBL			201 (B)
2. Phalaris arundinacea	35	Yes	FACW	Prevalence Index	c = B/A = 1.5	7
3. Dichanthelium clandestinum	15	No No	FACW			
4. Carex vulpinoidea	15	No No	FACW	Hydrophytic Veget		
5. Carex frankii		No No	OBL		or Hydrophytic Veget	tation
Impatiens capensis     Onoclea sensibilis	<u>5</u> 3	No No	FACW	X 2 - Dominance T		
		No	FACW	X 3 - Prevalence II	index is ≤3.0 al Adaptations¹ (Prov	ride cunnorting
•					ar Adaptations (Prov irks or on a separate	
9. 10.					drophytic Vegetation	
10	128	=Total Cover		<sup>1</sup> Indicators of hydric		
Woody Vine Stratum (Plot size: 30' )				be present, unless d		
1.				Hydrophytic	·	
2.				Vegetation		
		=Total Cover		•	sX No	_
Remarks: (Include photo numbers here or on a separa	ate sheet.)					
Hydrophytic vegetation indicators present as rapid test	,	species are Of	BL and FACV	V.		

SOIL Sampling Point: <u>aeh-200611-</u>

	cription: (Describe	to the dept				itor or c	onfirm the al	sence c	of indicators.)	
Depth	Matrix			ox Featur						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textur	e	Remarks	
0-18	10YR 5/1	97	10YR 5/6	3	С	PI	Loamy/Cla	ayey	Prominent redox conce	ntrations
	-									
-		· <del></del> -								
1										
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion. RM=	Reduced Matrix.	MS=Mas	ked San	d Grains	. <sup>2</sup> l	_ocation:	PL=Pore Lining, M=Matrix	
Hydric Soil			,						s for Problematic Hydric	
Histosol			Sandy Gle	yed Mat	rix (S4)				t Prairie Redox (A16)	
	oipedon (A2)		Sandy Red	-			_		Manganese Masses (F12)	
	stic (A3)		Stripped M				_		Parent Material (F21)	
	en Sulfide (A4)		Dark Surfa	•	,		_		Shallow Dark Surface (F22	)
	d Layers (A5)		Loamy Mu		eral (F1)		_		(Explain in Remarks)	•
	ıck (A10)		Loamy Gle	-			_		,	
	d Below Dark Surface	e (A11)	X Depleted N	-						
	ark Surface (A12)	,	Redox Dar	•	,		3	ndicators	s of hydrophytic vegetation	and
	lucky Mineral (S1)		Depleted [		` '	1			nd hydrology must be prese	
	ıcky Peat or Peat (S3	3)	Redox De		` '				s disturbed or problematic.	•
	Layer (if observed):	<u> </u>		<u>-                                      </u>					<u> </u>	
Type:	Layer (ii obeer rou).	,								
Depth (i	nches).		_				Hydric Soil	Dresent	? Yes X	No
. `							1194110 00	1 1000	.i	
Remarks:	is revised from Mi	dweet Regi	and Sunnlament	Varsian (	2 0 to incl	udo the	NDCS Eigld II	adioatore	of Hydric Soils in the Unite	ad States
	m is revised from Mi 2018. (https://www.r							านเผลเบาอ	Of Hydric John in the Orne	M States,
	ndicator present as lo			000	IVI On in C.	) 172P2_	000171.pai,			
,	,		9							
HYDROLO	JCA									
	drology Indicators:						_			
-	cators (minimum of c	ne is requir					<u>s</u>		y Indicators (minimum of tv	vo required)
	Water (A1)		Water-Stai				_		ce Soil Cracks (B6)	
	iter Table (A2)		Aquatic Fa	•	•		_		age Patterns (B10)	
Saturation			True Aqua				_		Season Water Table (C2)	
	larks (B1)		Hydrogen				- (50)		ish Burrows (C8)	(50)
	nt Deposits (B2)		Oxidized F	•		•	oots (C3)		ation Visible on Aerial Imag	jery (C9)
	posits (B3)		Presence		,	, ,	-		ed or Stressed Plants (D1)	
	at or Crust (B4)		Recent Iro			iled Sous			norphic Position (D2)	
	oosits (B5)	(5.7	Thin Muck					X FAC-I	Neutral Test (D5)	
	on Visible on Aerial I				, ,					
Sparsely	/ Vegetated Concave	₃ Surface (⊞	38) Other (Exp	olain in R	(emarks)		•			
Field Obser	vations:									
Surface Wat	ter Present? Ye	es			nches):					
Water Table		es			nches):					
Saturation F	resent? Ye	es	No <u>x</u>	Depth (in	nches):		Wetland F	lydrolog	gy Present? Yes X	No
	pillary fringe)									
Describe Re	corded Data (stream	ı gauge, mo	nitoring well, aeria	al photos	, previous	s inspect	tions), if availa	able:		
Remarks:			. 5.							
	ondary hydrology ind tland with no observ						ation and cond	centratio	n of surface runoff in geom	orphic
position. we	tiana with no observe	able downs	Team connectivity	, potentia	ally isolat	eu.				

Project/Site: Crooksville-North Newark 138 kV Transn	nission Line	City/Cou	unty: Perry C	ounty	Sampling Date	e: 06/11/2020
Applicant/Owner: AEP		<u> </u>		State: OH	Sampling Poir	nt: upl-aeh-200611-08
Investigator(s): AEH, SKM		Section, 7	 Гownship, Rar	nge: S12 T17N R16	SW	
Landform (hillside, terrace, etc.): Hillslope			Local relief (c	concave, convex, none	e): convex	
Slope (%):10 Lat: 39.88526		Long: -	-82.23748		Datum: NAD83	
Soil Map Unit Name: WnE - Westmoreland loam, 20 to	o 40 percent					
Are climatic / hydrologic conditions on the site typical f			Yes x			
Are Vegetation, Soil, or Hydrology		•		Circumstances" preser		
Are Vegetation, Soil, or Hydrology	="			plain any answers in I		
SUMMARY OF FINDINGS – Attach site m				-	•	eatures, etc.
	lo X		e Sampled Ar		<u> </u>	
	lo X		n a Wetland?		NoX	
	lo X			<u> </u>		
Remarks:						
Sample point Upland 061 (upl-aeh-20200611-08) is pwetland criteria are met.	oint out to W	etland 058, at	bout 10' west	of boundary at lower	elevation. Not a we	tland point as no
VEGETATION – Use scientific names of pla	ants.					
	Absolute	Dominant	Indicator			
Tree Stratum (Plot size: 30' )  1. Acer rubrum	% Cover 5	Species? Yes	Status FAC	Dominance Test v		
2.		165	FAC	Number of Domina Are OBL, FACW, o	•	2 (A)
3.				Total Number of Do	_	(, ,)
4.				Across All Strata:	Offilialit opecies	4 (B)
5.				Percent of Domina	nt Species That	
	5	=Total Cover		Are OBL, FACW, o	•	50.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	)					
1				Prevalence Index		
2.				Total % Cover		iply by:
3.	. —			OBL species	0 x 1 =	0
4				FACW species	37 x 2 =	74
5		=Total Cover		FAC species FACU species	15 x 3 = 45 x 4 =	45 180
Herb Stratum (Plot size: 5' )		- Total Cover		UPL species	0 x 5 =	0
1. Vitis labrusca	20	Yes	FACU	Column Totals:	97 (A)	299 (B)
Asclepias syriaca	15	Yes	FACU	Prevalence Inde		5.08
3. Dichanthelium clandestinum	15	Yes	FACW			
4. Schedonorus arundinaceus	10	No	FACU	Hydrophytic Vege	etation Indicators:	
5. Poa pratensis	10	No	FAC	1 - Rapid Test	for Hydrophytic Ve	getation
6. Verbesina alternifolia	10	No	FACW	2 - Dominance		
7. Carex vulpinoidea	5	No	FACW	3 - Prevalence		
8. Impatiens capensis	5	No	FACW		cal Adaptations <sup>1</sup> (Pr	
9. <u>Onoclea sensibilis</u>	2	No	FACW		arks or on a separa	
10		-Total Cover			ydrophytic Vegetati	
Woody Vine Stratum (Plot size: 30'	92	=Total Cover			c soil and wetland he disturbed or proble	
1.	)			·	disturbed of proble	Illauc.
2.		-		Hydrophytic Vegetation		
		=Total Cover		_	es No	X
Remarks: (Include photo numbers here or on a sepa					<u> </u>	
No hydrophytic vegetation indicators present as domi	,	not > 50%, d	ominant speci	ies are FACW, FAC a	and FACU	
			•			

Upland 061

SOIL Sampling Point: |-aeh-200611

		o the depth				tor or c	onfirm the absence	of indicators.)	
Depth	Matrix			x Featur		. 2			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-18	10YR 4/2	100					Loamy/Clayey		
								-	
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, N	/IS=Mas	ked Sand	l Grains	. <sup>2</sup> Location	: PL=Pore Lining, M=Matrix	⟨.
Hydric Soil	ndicators:						Indicato	rs for Problematic Hydric	Soils³:
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)		Coas	st Prairie Redox (A16)	
Histic Ep	ipedon (A2)		Sandy Red	lox (S5)			Iron-	Manganese Masses (F12)	
Black His	stic (A3)		Stripped M	•	6)			Parent Material (F21)	
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F22)	)
	Layers (A5)		Loamy Mu	-			Othe	r (Explain in Remarks)	
2 cm Mu	, ,		Loamy Gle	•	, ,				
	Below Dark Surface	(A11)	Depleted N				2		
	rk Surface (A12)		Redox Dar		` '			rs of hydrophytic vegetation	
	ucky Mineral (S1)		Depleted D					and hydrology must be prese	ent,
5 cm Mu	cky Peat or Peat (S3	)	Redox Dep	ression	s (F8)		unles	ss disturbed or problematic.	
Restrictive I	_ayer (if observed):								
Type:			_						
Depth (ir	ches):		_				Hydric Soil Presen	t? Yes	No X
Version 8.2,	m is revised from Mic 2018. (https://www.n I indicators present.	•						s of Hydric Soils in the Unite	d States,
HYDROLO	GY								
	drology Indicators:								
_	ators (minimum of o	ne is require	nd: check all that a	annly)			Seconda	ry Indicators (minimum of tw	o required)
-	Water (A1)	ic is require	Water-Stai		ves (B9)			ace Soil Cracks (B6)	o required)
	ter Table (A2)		Aquatic Fa		` ,			nage Patterns (B10)	
Saturation	` ,		True Aqua	-	-			Season Water Table (C2)	
Water M			Hydrogen					fish Burrows (C8)	
	t Deposits (B2)		Oxidized R		, ,			ration Visible on Aerial Imag	ery (C9)
	osits (B3)		Presence of			•		ted or Stressed Plants (D1)	, ,
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soils	s (C6) Geor	morphic Position (D2)	
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		FAC-	Neutral Test (D5)	
Inundatio	on Visible on Aerial Ir	nagery (B7)	Gauge or \	Vell Dat	a (D9)				
Sparsely	Vegetated Concave	Surface (B8	3) Other (Exp	lain in R	Remarks)				
Field Obser	vations:								
Surface Water	er Present? Ye	s	No <u>x</u>	Depth (i	nches):	0			
Water Table	Present? Ye	s	No <u>x</u>	Depth (i	nches): _				
Saturation P	resent? Ye	s	No <u>x</u>	Depth (i	nches):		Wetland Hydrolo	gy Present? Yes	No X
(includes cap	· · ·								
Describe Re	corded Data (stream	gauge, mon	itoring well, aeria	l photos	, previous	inspec	tions), if available:		
Remarks:	indicators								
ivo nyarology	indicators present.								

Site: Crooksvill	e-North Newark 138 kV Transmission I	Line Rebuild Project	Date:	June 11, 2020
	-aeh-20200611-08	Line Resulta i Toject	Rater:	AH, SM
	30. 202000 00		110.0011	,
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  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)  0.1 to <0.3 acres (0.04 to <0.12  x <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts)		
9 9 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select on  WIDE. Buffers average 50m (1  x MEDIUM. Buffers average 25n  NARROW. Buffers average 10  VERY NARROW. Buffers aver	e, <u>do not double check)</u> 164ft) or more around wet n to <50m (82 to <164ft) a lm to <25m (32ft to <82ft	tland perimeter (7) around wetland pe t) around wetland p	erimeter (4) perimeter (1)
	VERY LOW. 2nd growth or old     X LOW. Old field (>10 years), sh     MODERATELY HIGH. Resider HIGH. Urban, industrial, open in	ler forest, prairie, savanna rubland, young second g ntial, fenced pasture, parl	ah, wildlife area, et rowth forest. (5) k, conservation tilla	age, new fallow field. (3)
25 16 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake o  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average x  None or none apparent (12)	vater (3) r stream) (5) .	100 year Betwee x Part of part	o permanently inundated/saturated (4) rly inundated/saturated (3) nally inundated (2) nally saturated in upper 30cm (12in) (1) sturbances observed
	Recovered (7) Recovering (3) Recent or no recovery (1)	]	dike  tile weir stormwater inpu	☐ filling/grading ☐ road bed/RR track ☐ dredging  ut ☐ other- list
34 9 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dot  X None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)	uble check and average.	4c. Habitat alterati None o Recove x Recove	, ,
	Very good (6) Good (5) Moderately good (4) Fair (3) x Poor to fair (2) Poor (1)	Check all disturb  ✓ mowing  ☐ grazing  ✓ clearcutting  ☐ selective cutting  ☐ woody debris remo  ☐ toxic pollutants	C C C val	and shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient emrichment

Site: Crooksville-North Newark 138 kV Transmission	Line Rebuil Date:	June 11, 2020						
Wetland: w-aeh-20200611-08	Rater:	AH, SM						
W-aen-20200011-00	Nater.	An, Sivi						
34 subtotal first page								
34 0 Metric 5. Special Wetlands. (ma	x 10 pts.)							
<u> </u>	Check all that apply and score as indicated							
Bog (10 pts)								
Fen (10 pts)								
Old Growth Forest (10 p	s)							
Mature forested wetland	,							
	y wetland-unrestricted hydrol							
	y wetland-restricted hydrology	y (5 pts)						
Relict Wet Prairies (10 p	(Oak Openings) (10 pts)							
	ع) federal threatened or endang	ered species (10)						
	bird/waterfowl habitat or usag							
<del></del>	e Question 1 of Qualitative Ra							
35 1 Metric 6. Plant Communities, in	terspersion, microtop	ography. (max 20 pts.)						
Subtotal Points <u>6a. Wetland Vegetation Communities</u>								
Score all present using 0 to 3 scale	Vegetatio	n Community Cover Scale						
Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area						
2 Emergent Shrub								
Forest	1	Present and either comprises small part of wetland's vegetation and is						
Mudflats	· ·	of moderate quality, or comprises a significant part but is of low quality						
Open water		Present and either comprises significant part of wetland's vegetation						
Other (list)	2	and is of moderate quality or comprises a small part and is of high						
		quality						
6b. Horizontal (plan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation						
Select only one		and is of high quality						
High (5)  Moderately high (4)	Narrativo	Description of Vegetation Quality						
Moderate (3)		Low spp diversity and/or predominance of nonnative or disturbance						
Moderately low (2)	low	tolerant native species						
Low (1)		Native spp are dominant component of the vegetation, although						
x None (0)	moderate	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						
6c. Coverage of invasive plants.		presence of fare threatened of endangered spp						
Refer to Table 1 ORAM long form for list.  Add or deduct points for coverage		A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp						
Extensive >75 % cover (	-5) high	diversity and often, but not always, the presence of rare, threatened, or						
x Moderate 25-75% cover	·	endangered spp						
Sparse 5-25% cover (-1)	· · · · · · · · · · · · · · · · · · ·							
Nearly Absent <5% cover	r (0) Mudflat a	nd Open Water Class Quality						
Absent (1)	0	Absent <0.1 ha (0.2471 acres)						
	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)						
	2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)						
6d. Microtopography	3	High 4 ha (9.88 acres) or more						
Score all present using 0 to 3 scale  2 Vegetated hummocks/tu	sencke Microtono	ography Cover Scale						
0 Coarse woody debris >1		Absent						
0 Standing dead > 25 cm (	10") dbh							
0 Amphibian breeding poo	' 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 and of highest quality						



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 058

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 058

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 058

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 058

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 058

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmiss	sion Line	City/Cour	nty: Perry Co	ounty Sampling Date: 06/11/202
Applicant/Owner: AEP				State: OH Sampling Point: w-aeh-200611
Investigator(s): AEH, SKM		Section, T	ownship, Rar	nge: S12 T17N R16W
Landform (hillside, terrace, etc.): floodplains		 	_ocal relief (c	oncave, convex, none): concave
Slope (%): 0 Lat: 39.88613		Long: -8	32.2387	Datum: NAD83
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent s	slopes, occ			NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for	-	-	Yes x	
Are Vegetation , Soil , or Hydrology sig		•		circumstances" present? Yes x No
Are Vegetation, Soil, or Hydrologyna				plain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map				
Hydrophytic Vegetation Present? Yes X No		ls the	Sampled Ar	02
<u></u>	<del></del>		a Wetland?	
Wetland Hydrology Present? Yes X No				<del></del>
Remarks:		<u>_</u>		
Sample point w-aeh-20200611-09a is point in for PSS V				
floodplain of Stream 056 (Jonathan Creek) and railroad	grade. Wet	land extends	to southwest	into woodlot.
<b>VEGETATION</b> – Use scientific names of plant	s.			
	Absolute	Dominant	Indicator	Deminance Test weeksheets
Tree Stratum (Plot size: 30' ) 1.	% Cover	Species?	Status	Dominance Test worksheet:
2.				Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
3.				Total Number of Dominant Species
4.				Across All Strata: 3 (B)
5.				Percent of Dominant Species That
_	=	Total Cover		Are OBL, FACW, or FAC: 100.0% (A/I
Sapling/Shrub Stratum (Plot size: 15')				
1. Fraxinus pennsylvanica	15	Yes	FACW	Prevalence Index worksheet:
2. Salix nigra	15	Yes	OBL	Total % Cover of: Multiply by:
3. Platanus occidentalis	5	No	FACW	OBL species 85 x 1 = 85 FACW species 50 x 2 = 100
4 5.				FACW species 50 x 2 = 100 FAC species 0 x 3 = 0
	35 =	Total Cover		FACU species 0 x 4 = 0
Herb Stratum (Plot size: 5' )				UPL species 0 x 5 = 0
1. Carex crinita	60	Yes	OBL	Column Totals: 135 (A) 185 (B)
2. Carex vulpinoidea	15	No	FACW	Prevalence Index = B/A = 1.37
3. Impatiens capensis	15	No	FACW	
4. Acorus americanus	10	No	OBL	Hydrophytic Vegetation Indicators:
5				x 1 - Rapid Test for Hydrophytic Vegetation
6				X 2 - Dominance Test is >50%
7				X 3 - Prevalence Index is ≤3.0 <sup>1</sup>
8 9.				<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide support data in Remarks or on a separate sheet)</li> </ul>
10.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
···	100 =	Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology mus
Woody Vine Stratum (Plot size: 30' )				be present, unless disturbed or problematic.
1				Hydrophytic
2.				Vegetation
	=	Total Cover		Present? Yes X No No
Remarks: (Include photo numbers here or on a separate	e sheet.)			
Hydrophytic vegetation indicator present as rapid test, d	ominant sp	ecies are OB	L and FACW	

US Army Corps of Engineers

SOIL Sampling Point: aeh-200611-0

		to the dept				tor or c	confirm the absence of	of indicators.)		
Depth	Matrix			x Featur						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-18	5B 6/1	90	7.5YR 5/8	10	С	pl	Loamy/Clayey	Prominent redox concentrations		
			_							
								-		
	oncentration, D=Dep	letion, RM=	Reduced Matrix, I	MS=Masl	ked Sand	l Grains		PL=Pore Lining, M=Matrix.		
Hydric Soil								s for Problematic Hydric Soils <sup>3</sup> :		
— Histosol			Sandy Gle	-	rix (S4)			t Prairie Redox (A16)		
	ipedon (A2)		Sandy Re	, ,				Manganese Masses (F12)		
Black His	` '		Stripped N	•	5)			Parent Material (F21)		
	n Sulfide (A4)		Dark Surfa		1 (54)			Shallow Dark Surface (F22)		
	Layers (A5)		Loamy Mu	-			Other	(Explain in Remarks)		
2 cm Mu	ck (ATU) Below Dark Surface	. (111)	X Loamy Glo	-						
	rk Surface (A12)	(A11)	Depleted I	•			3Indicator	s of hydrophytic vegetation and		
	ucky Mineral (S1)		Depleted I		` '					
	cky Peat or Peat (S3	()	x Redox De		` '		wetland hydrology must be present, unless disturbed or problematic.			
		<u>′</u>	A REGOX DE	pressions	3 (1 0)	1	unico	o distarbed of problematic.		
	_ayer (if observed):									
Type: Depth (ir	ichoe).		_				Hydric Soil Present	? Yes X No		
. ,							nyunc son Fresent	? Yes X No		
Remarks:	m is revised from Mi	ducat Dagia	nal Cunnlament )	Varaian 2	O to incl	uda tha	NDCC Field Indicators	of Lludric Coile in the United States		
	nn is revised from Mic 2018. (https://www.n							of Hydric Soils in the United States,		
							ession subject to pondi	ing.		
-										
HYDROLO	GY									
	drology Indicators:									
_	ators (minimum of o	ne is require	ed: check all that	apply)			Secondar	y Indicators (minimum of two required)		
	Nater (A1)	no io roquii	Water-Sta		ves (B9)			ce Soil Cracks (B6)		
	ter Table (A2)		Aquatic Fa					age Patterns (B10)		
X Saturation			True Aqua	•	•		Dry-Season Water Table (C2)			
Water M			Hydrogen			1		ish Burrows (C8)		
x Sedimen	t Deposits (B2)		x Oxidized F	Rhizosph	eres on L	iving R	oots (C3) Satur	ation Visible on Aerial Imagery (C9)		
Drift Dep	osits (B3)		Presence	of Reduc	ed Iron (	C4)	Stunt	ed or Stressed Plants (D1)		
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soil	s (C6) <u>x</u> Geon	norphic Position (D2)		
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		X FAC-	Neutral Test (D5)		
Inundatio	on Visible on Aerial Ir	magery (B7)	Gauge or	Well Data	a (D9)					
Sparsely	Vegetated Concave	Surface (B	B) Other (Ex	olain in R	emarks)					
Field Obser	vations:									
Surface Water	er Present? Ye	s	No x	Depth (ir		0				
Water Table		s x	No	Depth (ir	_					
Saturation P		s x	No	Depth (ir	nches):	0	Wetland Hydrolog	gy Present? Yes X No		
(includes cap	· · ·									
Describe Re	corded Data (stream	gauge, moi	nitoring well, aeria	ai photos,	previous	sinspec	tions), if available:			
Remarks:										
	ary and secondarv h	ydrology ind	licators present. I	Primary s	ources o	f hydrol	ogy are concentration	of precipitation and surface runoff in		
geomorphic	position and overban	k flow from	perennial stream	Jonathai	n Creek.	Wetland	d continues to southwe	st along railroad grade to Jonathan		
Creek, which	flows east to Moxah	nala Creek t	nat flows north to	Musking	um Rivei	, a TNV	٧.			

US Army Corps of Engineers

Project/Site: Crooksville-North Newark 138 kV Transmis	ssion Line	_ City/Cou	nty: Perry Co	ounty	Sampling Date	e: <u>06/11/2020</u>
Applicant/Owner: AEP				State: OH	Sampling Poir	w-aeh-200611-09b
Investigator(s): AEH, SKM		Section, T	ownship, Rar	nge: S12 T17N R16	6W	
Landform (hillside, terrace, etc.): floodplains			Local relief (c	oncave, convex, non	e): concave	
Slope (%): 0 Lat: 39.88603		Long: -	82.23879		Datum: NAD83	
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent	slopes, occ	asionally floo	ded	NWI cla	ssification: N/A	
Are climatic / hydrologic conditions on the site typical for	r this time of	f year?	Yes x	No _ (If no,	explain in Remarks	.)
Are Vegetation, Soil, or Hydrologysi	ignificantly d			ircumstances" prese		No
Are Vegetation, Soilx_, or Hydrologyn			If needed, exp	olain any answers in		
SUMMARY OF FINDINGS – Attach site ma		·		-	•	eatures, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled Ar	ea		
			n a Wetland?		( No	
Wetland Hydrology Present? Yes X No						
Remarks:						
Sample point w-aeh-20200611-09b is point in for PFO floodplain of Stream 056 (Jonathan Creek) and roalroa			•	•	between edge of 10	00-year
		Allanu externa	5 IO SOULITANCS	t IIIto woodiot.		
VEGETATION – Use scientific names of plar		Dominant	Indicator			
<u>Tree Stratum</u> (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	worksheet:	
1. Platanus occidentalis	30	Yes	FACW	Number of Domina		
2. Acer rubrum	20	Yes	FAC	Are OBL, FACW, o	•	7 (A)
3. Ulmus americana	20	Yes	FACW	Total Number of D	ominant Species	
4. Acer negundo	10	No	FAC	Across All Strata:		7 (B)
5				Percent of Domina		
- :: (C)	80 =	=Total Cover		Are OBL, FACW, o	or FAC:	100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )	4-		- 1 O M	~ 1 lada		
Fraxinus pennsylvanica     Asimina triloba	15	Yes Yes	FACW FAC	Prevalence Index Total % Cove		alu hu
Asimina triloba     Ulmus americana	5	No Yes	FACW	OBL species	50 x 1 =	ply by: 50
4.			1 70 **	FACW species	110 x 2 =	220
5.				FAC species	40 x 3 =	120
	30 =	=Total Cover		FACU species	10 x 4 =	40
Herb Stratum (Plot size: 5' )				UPL species	0 x 5 =	0
1. Carex crinita	35	Yes	OBL	Column Totals:	210 (A)	430 (B)
2. Solidago gigantea	20	Yes	FACW	Prevalence Inde		.05
3. Potamogeton natans	15	No	OBL			
4. Phalaris arundinacea	10	No	FACW	Hydrophytic Vege	etation Indicators:	
5. Lysimachia nummularia	10	No	FACW		for Hydrophytic Ve	getation
6. Sanicula canadensis	10	No	FACU	X 2 - Dominance		
7.				X 3 - Prevalence		
8.					ical Adaptations <sup>1</sup> (Pr	
9.					narks or on a separa	
10	100	Total Cover			ydrophytic Vegetatio	
Woody Vine Stratum (Plot size: 30' )	100 =	=Total Cover			c soil and wetland h disturbed or proble	
1. (Plot size)				•	disturbed of proble	mauc.
2.			<del></del> [	Hydrophytic Vegetation		
		=Total Cover		•	es X No	
Remarks: (Include photo numbers here or on a separa		• = -=		•		
Hydrophytic vegetation indicator present as dominance	•	. dominant sp	ecies are OB	L. FACW and FAC		
.,, .		, .		_,		

SOIL Sampling Point: aeh-200611-0

Profile Desc	ription: (Describe	to the dept	h needed to doc	ument tl	ne indica	tor or c	confirm the absence of	of indicators.)			
Depth	'						_				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-18	10YR 6/1	90	10YR 5/6	10	С	PL	Loamy/Clayey	Prominent redox concentrations			
1- 0.0			<u> </u>				2, ,				
Hydric Soil I	ncentration, D=Dep	letion, RM=	Reduced Matrix, I	VIS=IVIas	ked Sand	Grains		: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :			
Histosol			Sandy Gle	wed Mat	riv (S1)			t Prairie Redox (A16)			
	ipedon (A2)		Sandy Re	-				Manganese Masses (F12)			
Black His			Stripped N					Parent Material (F21)			
	n Sulfide (A4)		Dark Surfa	•	-,			Shallow Dark Surface (F22)			
	Layers (A5)		Loamy Mu	` '	eral (F1)			(Explain in Remarks)			
2 cm Mu			Loamy Gle	-				,			
Depleted	Below Dark Surface	e (A11)	X Depleted I	-							
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and			
Sandy M	ucky Mineral (S1)		Depleted I	Dark Sur	face (F7)		wetla	nd hydrology must be present,			
5 cm Mu	cky Peat or Peat (S3	3)	? Redox De	pression	s (F8)		unless disturbed or problematic.				
Restrictive L	ayer (if observed):										
Туре:											
Depth (in	ches):						Hydric Soil Present	? Yes X No			
Remarks:						•					
								of Hydric Soils in the United States,			
	2018. (https://www.n			OCUME	NTS/nrcs	142p2_	_053171.pdf)				
Hydric soil in	dicator present as lo	w chroma/n	ligh value matrix.								
HYDROLO	GY										
-	drology Indicators:										
-	ators (minimum of o	ne is requir						y Indicators (minimum of two required)			
	Water (A1)		x Water-Sta		, ,			ce Soil Cracks (B6)			
	ter Table (A2)		Aquatic Fa		•			age Patterns (B10)			
X Saturatio	• •		True Aqua		. ,			Season Water Table (C2)			
Water Ma			Hydrogen					ish Burrows (C8)			
	t Deposits (B2) osits (B3)		Oxidized F Presence			-	` '	ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)			
	t or Crust (B4)		Recent Iro		,	,		norphic Position (D2)			
	osits (B5)		Thin Muck			10 <b>u</b> 0011	` '	Neutral Test (D5)			
	n Visible on Aerial Ir	magery (B7					<u></u>				
	Vegetated Concave										
Field Observ	/ations:										
Surface Wate	er Present? Ye	s	No x	Depth (i	nches):	0					
Water Table	Present? Ye	s x	No	Depth (i	nches):	8					
Saturation Pr	esent? Ye	s x	No	Depth (i	nches):	5	Wetland Hydrolog	gy Present? Yes X No			
(includes cap	illary fringe)										
Describe Red	corded Data (stream	gauge, mo	nitoring well, aeria	al photos	, previous	inspec	tions), if available:				
D											
Remarks:	ary and secondary h	vdrology in	dicatore procent \	Nationa	continues	to cout	thweet along railroad a	rade to Jonathan Creek, which flows			
	hala Creek that flow	, ,,	•		Continues	เบ รบนเ	u west along fallioad g	rade to Jonathan Creek, Willon Hows			
//-		••	J								

Project/Site: Crooksville-North Newark 138 kV Transmi	ission Line	City/Cou	inty: Perry Co	ounty	Sampling Date:	06/11/2020
Applicant/Owner: AEP			_	State: OH	Sampling Point:	upl-aeh-200611-09
Investigator(s): AEH, SKM		Section, T	 ∫ownship, Rar	nge: S12 T17N R16W		
Landform (hillside, terrace, etc.): floodplain			Local relief (c	concave, convex, none):	convex	
Slope (%): 2 Lat: 39.88605		Long: -	-82.3898		Datum: NAD83	
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percen	it slopes, occ	casionally floo	ded	NWI classif	fication: N/A	
Are climatic / hydrologic conditions on the site typical fo	or this time of	f year?	Yes x	No (If no, exp	plain in Remarks.)	
Are Vegetation, Soil, or Hydrologys	significantly o	disturbed? /	re "Normal C	Circumstances" present?	Yes <u>x</u> N	o
Are Vegetation, Soil, or Hydrologyn	naturally prob	blematic? (	If needed, ex	xplain any answers in Re	marks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showir	ng samplin	g point lo	cations, transects,	important fea	tures, etc.
Hydrophytic Vegetation Present? Yes X No	)	Is the	e Sampled Ar	rea		
Hydric Soil Present? Yes No	X	withir	n a Wetland?	? Yes	No X	
Remarks: Sample point Upland 062 (upl-aeh-20200611-09) is poon right descending bank of Jonathan Creek in 100-ye  VEGETATION — Use scientific names of plan	ear floodplain	′ '	, ,		,	railroad grade
	Absolute	Dominant	Indicator	Γ		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wo		
Acer rubrum     Acer negundo	35 10	Yes Yes	FAC FAC	Number of Dominant Are OBL, FACW, or F	•	6 (A)
3. Acer negunao	10	1 55	FAC			<u> </u>
4.				Total Number of Dom Across All Strata:	Inant Species	7 (B)
5.				Percent of Dominant	Species That	``
	45	=Total Cover		Are OBL, FACW, or F	•	5.7% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )			=			
Acer rubrum     Platanus occidentalis	<u>10</u>	Yes Yes	FAC FACW	Prevalence Index wo Total % Cover of		· L.,
2. Platanus occidentalis 3.	<u> </u>	165	FACVV	_	$\frac{f:}{x \cdot 1} = \frac{\text{Multiply}}{x \cdot 1}$	y by: 0
4.					x 1 =	60
5.				· —		210
	15	=Total Cover				120
Herb Stratum (Plot size: 5' )			ļ	· · ·	x 5 =	0
1. Sanicula canadensis	20	Yes	FACU	Column Totals: 13		390 (B)
2. Urtica dioica	15	Yes	FACW	Prevalence Index	= B/A = 3.00	<u>)                                    </u>
Toxicodendron radicans     Persicaria pensylvanica	15	Yes No	FACW	Hydrophytic Vegeta	tion Indicators:	
Persicaria pensylvanica     Parthenocissus quinquefolia	10	No No	FACU		<b>นอก เทตเcators:</b> r Hydrophytic Vege	tation
6.		110	17.00	X 2 - Dominance Te		lation
7.				3 - Prevalence Inc		
8.				4 - Morphological	Adaptations <sup>1</sup> (Prov	
9.					ks or on a separate	. '
10					ophytic Vegetation	
Woody Vine Stratum (Plot size: 30')	70 =	=Total Cover		<sup>1</sup> Indicators of hydric s be present, unless dis		
1.				Hydrophytic		
2		=		Vegetation		
		=Total Cover		Present? Yes	XNo	_
Remarks: (Include photo numbers here or on a separa Hydrophytic vegetation indicator present and dominan	,	%, dominant s	species are F	ACW, FAC and FACU		
						ľ

Upland 062

SOIL Sampling Point: <u>|-aeh-200611</u>

		o the dept				itor or c	onfirm the absence	of indicators.)	<del>-</del>		
Depth	Matrix			k Featur		. 2		_	_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks		
0-10	10YR 2/1	95	10YR 4/3	5	D	M	Loamy/Clayey		fill		
	oncentration, D=Depl	etion, RM=I	Reduced Matrix, N	1S=Mas	ked Sand	d Grains		: PL=Pore Linin		_	
Hydric Soil								rs for Problema	-	Soils <sup>3</sup> :	
Histosol			Sandy Gle		rix (S4)			st Prairie Redox (	,		
	ipedon (A2)		Sandy Red					Manganese Mas			
Black His	` '		Stripped M	`	5)			Parent Material (	,		
	n Sulfide (A4)		Dark Surfa					Shallow Dark Su			
	Layers (A5)		Loamy Mu	-			Otne	r (Explain in Ren	narks)		
2 cm Mu	, ,	(111)	Loamy Gle	-							
	Below Dark Surface rk Surface (A12)	(A11)	Depleted N Redox Dar				<sup>3</sup> Indicato	rs of hydrophytic	vegetation :	and	
	ucky Mineral (S1)		Depleted D		` '				_		
	cky Peat or Peat (S3	١	Redox Dep				wetland hydrology must be present, unless disturbed or problematic.				
				7,000,011	(1 0)	1		, , , , , , , , , , , , , , , , , , ,			
	_ayer (if observed):	ı									
Type: Depth (in	fill/grave	10	<del>_</del>				Hydric Soil Presen	t2 '	Yes	No	Y
. ,		10					Tryunc con r resen				
Remarks:	m is revised from Mid	west Regio	anal Sunnlement V	ersion 2	0 to incl	ude the	NRCS Field Indicator	e of Hydric Soile	in the Unite	d State	26
	2018. (https://www.ni							s of Flydric Solis	iii tile Office	u Olaic	55,
							value matrix with no i	edox concentrati	ions in pore	linings	3
<b>HYDROLO</b>	GY										
Wetland Hvo	drology Indicators:										
_	ators (minimum of or	ne is require	ed; check all that a	ipply)			Seconda	ry Indicators (mir	nimum of tw	o requ	ired)
-	Nater (A1)	•	Water-Stai		ves (B9)		Surfa	ace Soil Cracks (	B6)	-	-
High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		Drair	nage Patterns (B	10)		
Saturation	n (A3)		True Aqua	tic Plant	s (B14)		Dry-	Season Water Ta	able (C2)		
Water Ma	arks (B1)		Hydrogen	Sulfide (	Odor (C1)	)		fish Burrows (C8			
Sedimen	t Deposits (B2)		Oxidized R			_		ration Visible on	_	ery (C9	9)
	osits (B3)		Presence of		-			ted or Stressed F	, ,		
	t or Crust (B4)		Recent Iro			lled Soils		morphic Position			
	osits (B5)	(5.5)	Thin Muck				X FAC	-Neutral Test (D5	5)		
	on Visible on Aerial In	0, ,									
	Vegetated Concave	Surface (Ba	8)Other (Exp	lain in R	(emarks)		1				
Field Observ			NI:	D 41- /:-		0					
Surface Wate					nches): _						
Water Table					nches): _		Wetland Undrala	my Dragont?	V V	Ma	
Saturation Pr		·—	No <u>x</u>	Depth (i	nones).		Wetland Hydrolo	gy Fresent?	Yes X	No_	
(includes cap	corded Data (stream	dalide mor	nitoring well seria	Inhotos	nrevious	s inspec	tions) if available:				
		gaage, moi		, p.10.03	, provious		, ii avaliabic.				
Remarks:											
		ors present.	Sample point loca	ated in 1	00-year f	floodplai	n of Jonathan Creek	adjacent to right o	descending	bank a	and
railroad grad	е.										

Site: Crooks	ville-North Newark 138 kV Transmission I	Line Rebuild Project	Date:	June 11, 2020
	w-aeh-20200611-09ab	,	Rater:	AH, SM
		na) (5 pts) (4 pts) pts) ) (2pts) 2ha) (1 pt)  Dunding land use. (me, do not double check) 164ft) or more around wetla n to <50m (82 to <164ft) around to <25m (32ft to <82ft) arage <10m (<32ft) around we	nax 14 pts)  nd perimeter (7 pound wetland perimeter vetland v	7) erimeter (4)   perimeter (1)
25 13 Subtotal Points	VERY LOW. 2nd growth or old  X LOW. Old field (>10 years), sh  MODERATELY HIGH. Resider  HIGH. Urban, industrial, open of the state of	ler forest, prairie, savannah rubland, young second gro ntial, fenced pasture, park, pasture, row cropping, mini 3b vater (3) r stream) (5)	with forest. (5) conservation til ng, construction  Connectivity.  X 100 ye Betwee X Part o Part o  Connection inun (select one o	lage, new fallow field. (3)
	x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average None or none apparent (12)  x Recovered (7)  Recovering (3)  Recent or no recovery (1)	e)	Seaso	parally inundated (2) parally saturated in upper 30cm (12in) (1) isturbances observed
34 9 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dot  None or none apparent (4)  x Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  x Fair (3)  Poor to fair (2)  Poor (1)	uble check and average.	Habitat altera None Recov X Recov Recer nces observ	ation. Score one or double check and average. or none apparent (9) vered (6) vering (3) Int or no recovery (1)  red  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient emrichment

34 subtotal this page

ORAM v. 5.0 Field Form Quantitative Rating										
Site: Crooksville-North Newark 138 kV Tra	ansmission Line Rebuil <b> Da</b>	ate:	June 11, 2020							
Wetland: w-aeh-20200611-09ab	Ra	ater:	AH, SM							
34 subtotal first page										
34 0 Metric 5. Special Wet	lands. (max 10 pts.)									
Subtotal Points Check all that apply and score	e as indicated									
Bog (10 pts	s)									
Fen (10 pts	5)									
Old Growth	Forest (10 pts)									
Mature fore	ested wetland (5 pts)									
<del></del> 1	coastal/tributary wetland-unrestrict	-								
	Lake Erie coastal/tributary wetland-restricted hydrology (5 pts)  Lake Plain Sand Prairies (Oak Openings) (10 pts)  Relict Wet Prairies (10 pts)									
<del></del> 1										
<del></del> 1	urrence state/federal threatened o	_								
<del></del> 1	migatory songbird/waterfowl habit	-								
Category	Wetland. See Question 1 of Qua	illialive Na	ung. (-10 pts)							
42 8 Metric 6. Plant Comm	unities, interspersion, mi	icrotopo	ography (max 20 pts )							
Subtotal Points 6a. Wetland Vegetation Com	• •	.о. отор	-91apny: (max 20 ptol)							
Score all present using 0 to 3		getatio	n Community Cover Scale							
Aquatic bed			•							
2 Emergent		0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area							
0 Shrub										
0 Forest		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							
Mudflats			or moderate quality, or comprised a dignificant part but to or low quality							
Open wate	r		Present and either comprises significant part of wetland's vegetation							
Other (list)		2	and is of moderate quality or comprises a small part and is of high							
			quality							
6b. Horizontal (plan view) into	<u>erspersion</u>	3	Present and comprises significant part, or more, of wetland's vegetation							
Select only one			and is of high quality							
High (5) Moderately	(high (4) Na	rrativo	Description of Vegetation Quality							
Moderate (	- ' '	ITALIVO	Low spp diversity and/or predominance of nonnative or disturbance							
Moderately	<i>'</i>	low	tolerant native species							
x Low (1)	` '		Native spp are dominant component of the vegetation, although							
None (0)		moderate	nonnative and/or disturbance tolerant native spp can also be present,							
	l m		and species diversity moderate to moderately high, but generally w/o							
6c. Coverage of invasive plan	nts.		presence of rare threatened or endangered spp							
Refer to Table 1 ORAM long			A predominance of native species, with nonnative spp and/or							
Add or deduct points for cove	9	high	disturbance tolerant native spp absent or virtually absent, and high spp							
<b>├──</b>	>75 % cover (-5)	3	diversity and often, but not always, the presence of rare, threatened, or endangered spp							
<del></del> 1	25-75% cover (-3)									
<b>├──</b>	5% cover (-1)	ıdflat ar	nd Open Water Class Quality							
	ent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)							
Absent (1)		1	Low 0.1 ha to <1 ha (0.2471 acres)							
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)							
6d. Microtopography		3	High 4 ha (9.88 acres) or more							
Score all present using 0 to 3	scale	-	_ • • • • •							
		crotopo	graphy Cover Scale							
<b>├──</b>	ody debris >15 cm (6")	0	Absent							
<del> </del>	ead > 25 cm (10") dbh	1	Procent year small amounts or if more common of marginal condition							
0 Amphibian	breeding pools	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 and of highest quality							



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 059a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 059a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 059a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 059

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 059a

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 059b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing North



### Wetland 059b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 059b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing South



### Wetland 059b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 059b

Date:

June 11, 2020

**Description:** 

PFO wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission I	Line Rebuild Proje	ect City/Cou	ınty: Perry C	ounty	Sampling Date	e: <u>06/0</u> 5	5/2020	
Applicant/Owner: AEP				State: OH	Sampling Poir	nt: w-bl-20	0200605-01	
Investigator(s): SM, BL		Section, 7	Γownship, Ra	Inge: S 12 T 17N R 16	W			
Landform (hillside, terrace, etc.): depression			Local relief (c	concave, convex, none):	concave			
Slope (%): 0 Lat: <u>39.88732</u>		Long: -	-82.24034		Datum: NAD 83	}		
Soil Map Unit Name: Mc - Melvin silt loam, thin solun	n, frequently po	onded, 0 to 3	percent slope	esNWI classi	fication: PSS1C			
Are climatic / hydrologic conditions on the site typical	for this time o	f year?	Yes x	No (If no, ex	plain in Remarks	5.)		
Are Vegetation, Soil, or Hydrology	significantly o	disturbed? /	Are "Normal (	Circumstances" present?	Yes x	No	_	
Are Vegetation, Soil, or Hydrology	_		(If needed, ex	xplain any answers in Re	marks.)	-	_	
SUMMARY OF FINDINGS – Attach site n	<u> </u>		g point lo	cations, transects,	, important fe	eatures,	, etc.	
Hydrophytic Vegetation Present? Yes X	No	Is the	e Sampled Aı	rea				
Hydric Soil Present? Yes X	No	withir	n a Wetland?	? Yes X	No			
Wetland Hydrology Present? Yes X	No							
Remarks: Sampling point in for PFO Wetland 060. Wetland is located in 100-year floodplain of Jonathan Creek and surrounded by agricultural field, extends to northeast and southwest outside study area.  VEGETATION – Use scientific names of plants.								
	Absolute	Dominant	Indicator	T				
Tree Stratum (Plot size: 30' )	% Cover	Species?	Status	Dominance Test wo				
1. Salix nigra	30	Yes	OBL	Number of Dominant	•	F	/A\	
2. Acer negundo 3.		Yes	FAC	Are OBL, FACW, or F		5	_(A)	
4.				Total Number of Dom Across All Strata:	inant Species	5	(B)	
5.				Percent of Dominant	Species That		-(-,	
	50	=Total Cover		Are OBL, FACW, or F	•	100.0%	(A/B)	
Sapling/Shrub Stratum (Plot size: 15'	)							
1. Acer negundo	10	Yes	FAC	Prevalence Index we			_	
Cephalanthus occidentalis     Francisco a consortium incompanies	3	No	OBL	Total % Cover of		iply by:	_	
3. Fraxinus pennsylvanica	3	No	FACW	· -	33 x1=	53 156	-	
5.				· -	x 2 = x 3 =	156 90	-	
5	16	=Total Cover		· · · · · · · · · · · · · · · · · · ·	0 x 4 =	0	-	
Herb Stratum (Plot size: 5' )		10		· —	0 x5=	0	-	
1. Urtica dioica	30	Yes	FACW		61 (A)	299	(B)	
2. Phalaris arundinacea	20	Yes	FACW	Prevalence Index		1.86	_	
3. Lysimachia nummularia	15	No	FACW					
4. Carex crinita	15	No No	OBL	Hydrophytic Vegeta				
5. Onoclea sensibilis		No No	FACW	1 - Rapid Test for		getation		
6. Persicaria lapathifolia 7. Persicaria sagittata	5	No No	FACW	X 2 - Dominance Te				
<ul><li>7. Persicaria sagittata</li><li>8.</li></ul>	5	No	OBL	X 3 - Prevalence In 4 - Morphological		-avida gur	anarting	
9.					ks or on a separa			
10.				Problematic Hydr	·			
Woody Vine Stratum (Plot size: 30'	95	=Total Cover		<sup>1</sup> Indicators of hydric s be present, unless dis	soil and wetland h	hydrology	-	
1.	=' 			Hydrophytic	<u> </u>			
2.				Vegetation				
				Vegetation				
		=Total Cover			X No_			

SOIL Sampling Point: bl-20200605-

	cription: (Describe	to the dep				tor or c	onfirm the absence o	of indicators.)
Depth	Matrix		Redo	x Feature				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-5	10YR 3/2	98	10YR 4/6	2	<u>C</u>	PL	Loamy/Clayey	silty clay loam
5-18	10YR 5/2	80	10YR 5/6	20	C	PL/M	Loamy/Clayey	silty clay loam
	-							
1 <sub>T. max</sub> 0-0			Deduced Metric				21 4:	DI - Dana Lining M-Matrix
Hydric Soil	oncentration, D=Dep	netion, Rivi=	Reduced Matrix, I	vi5=iviasi	ked Sand	Grains		PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	ved Matr	rix (S4)			Prairie Redox (A16)
	pipedon (A2)		Sandy Re	-	IX (O4)			Manganese Masses (F12)
Black Hi			Stripped N		;)			Parent Material (F21)
	n Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu		eral (F1)			(Explain in Remarks)
2 cm Mu	ıck (A10)		Loamy Gle	eyed Mat	rix (F2)			
X Depleted	d Below Dark Surface	e (A11)	X Depleted I	Matrix (F3	3)			
Thick Da	ark Surface (A12)		x Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted I	Dark Surf	face (F7)		wetlar	nd hydrology must be present,
5 cm Mu	icky Peat or Peat (S3	3)	Redox De	pressions	s (F8)		unless	s disturbed or problematic.
Restrictive	Layer (if observed):	:						
Type:								
Depth (ir	nches):						Hydric Soil Present	? Yes X No
Remarks:								
	m is revised from Mi 2018. (https://www.r							of Hydric Soils in the United States,
							x layers with redox con	centrations.
,	•				3		,	
HYDROLO	)GV							
_	drology Indicators:		end, about all that	(براممه			Cacandar	u Indicators (minimum of two required)
	<u>cators (minimum of c</u> Water (A1)	one is requir	Water-Sta		vos (RO)			y Indicators (minimum of two required) ce Soil Cracks (B6)
	iter Table (A2)		Aquatic Fa					age Patterns (B10)
X Saturation			True Aqua	•	•			eason Water Table (C2)
	arks (B1)		Hydrogen			ı		sh Burrows (C8)
	nt Deposits (B2)		x Oxidized F					ation Visible on Aerial Imagery (C9)
X Drift Dep			Presence	of Reduc	ed Iron (	C4)		ed or Stressed Plants (D1)
X Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soils	s (C6) X Geom	norphic Position (D2)
Iron Dep	ocite (R5)		Thin Muck	Surface	(C7)		X FAC-N	Neutral Test (D5)
non bep	iosits (D3)			M/- II D - 4	a (D9)			
	on Visible on Aerial I	magery (B7	) Gauge or	vveli Data	. (=0)			
Inundation			<i>_</i>		` '			
Inundation Sparsely Field Obser	on Visible on Aerial I  Vegetated Concave  vations:		Other (Exp		` '			
Inundation Sparsely Field Obser Surface Wat	on Visible on Aerial I  Vegetated Concave  vations: er Present?  Ye	e Surface (E	Other (Exp	olain in R Depth (ir	emarks)	0		
Inundation Sparsely Field Obser Surface Wat Water Table	on Visible on Aerial I  Vegetated Concave  vations: er Present?  Ye  Present?	e Surface (E	No X	Depth (ir	emarks) nches): _	12		
Inundation Sparsely Field Obser Surface Wat Water Table Saturation P	on Visible on Aerial I  Vegetated Concave  vations: er Present? Ye  Present? Ye  resent? Ye	e Surface (E	Other (Exp	Depth (ir	emarks)	12	Wetland Hydrolog	y Present? Yes X No
Inundation Sparsely Field Obser Surface Water Table Saturation P (includes ca	on Visible on Aerial I  Vegetated Concave  vations: er Present? Ye  Present? Ye  resent? Ye  pillary fringe)	es X es X	No X No No No	Depth (ir Depth (ir Depth (ir Depth (ir	emarks) nches): _ nches): _ nches): _	12 8		y Present? Yes_X_ No
Inundation Sparsely Field Obser Surface Water Table Saturation P (includes ca	on Visible on Aerial I  Vegetated Concave  vations: er Present? Ye  Present? Ye  resent? Ye	es X es X	No X No No No	Depth (ir Depth (ir Depth (ir Depth (ir	emarks) nches): _ nches): _ nches): _	12 8		y Present? Yes <u>X</u> No
Inundation Sparsely Field Obser Surface Water Table Saturation P (includes ca	on Visible on Aerial I  Vegetated Concave  vations: er Present? Ye  Present? Ye  resent? Ye  pillary fringe)	es X es X	No X No No No	Depth (ir Depth (ir Depth (ir Depth (ir	emarks) nches): _ nches): _ nches): _	12 8		y Present? Yes X No
Inundatic Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca) Describe Re Remarks: Multiple prim	on Visible on Aerial I  Vegetated Concave  vations: er Present? Ye  Present? Ye  resent? Ye  pillary fringe)  corded Data (stream  mary and secondary h	e Surface (E	No X No N	Depth (ir Depth (ir Depth (ir Depth (ir al photos,	emarks) nches): _ nches): _ nches): _ previous	12 8 s inspec	tions), if available:	from perennial stream Jonathan Creek ial stream Jonathan Creek that flows

### Upland 063

### WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transmission Lin	e Rebuild Proje	ect City/Cou	nty: Perry C	ounty	Sampling Date	e: 06/05	/2020	
Applicant/Owner: AEP				State: OH	Sampling Poin	t: upl-bl-20	200605-01	
Investigator(s): SM, BL		Section, T	ownship, Rai	nge: S 12 T 17N R 16V	V			
Landform (hillside, terrace, etc.): terrace			Local relief (c	concave, convex, none): f				
Slope (%): 0 Lat: 39.88734			82.2401	· -	Datum: NAD 83			
Soil Map Unit Name: Mc - Melvin silt loam, thin solum,	frequently po				ication: PSS1C			
Are climatic / hydrologic conditions on the site typical for			Yes x	No (If no, exp	-	,		
Are Vegetation, Soilx, or Hydrologys				Circumstances" present?				
							-	
Are Vegetation, Soil, or Hydrologyr				plain any answers in Ren	•	-4	-4-	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes X No	)	Is the	Sampled Ar	rea				
		withir	n a Wetland?	? Yes	No X			
Wetland Hydrology Present? Yes No	<u>X</u>							
Remarks:		<del>'</del>						
Sampling point Upland 063, point out to Wetland 060, year floodplain of Jonathan Creek adjacent to agricult.						ated in 10	00-	
		t a wetland po	oint as nydric	soil and nydrology criteria	a not met.			
<b>VEGETATION</b> – Use scientific names of plan								
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	kehoot:			
1. Juglans nigra	30	Yes	FACU	Number of Dominant S				
2.		- 100	17.00	Are OBL, FACW, or FA	•	3	(A)	
3.				Total Number of Domi			( )	
4.				Across All Strata:	папт орсоюз	7	(B)	
5.				Percent of Dominant S	— Species That		• ` ′	
	30	Total Cover		Are OBL, FACW, or FA	•	42.9%	(A/B)	
Sapling/Shrub Stratum (Plot size: 15' )								
Gleditsia triacanthos	5	Yes	FACU	Prevalence Index wo	rksheet:			
2. Rubus occidentalis	2	Yes	UPL	Total % Cover of:		ply by:		
3.				OBL species 10		10	-	
4				FACW species 70		140	-	
5		Tatal Cause		FACILIANA SIGN		0	-	
Herb Stratum (Plot size: 5' )	7	=Total Cover		FACU species 65 UPL species 2		260 10	-	
1. Galium aparine	20	Yes	FACU	Column Totals: 14		420	(B)	
2. Phalaris arundinacea	20	Yes	FACW	Prevalence Index =	``	.86	.(5)	
Verbesina alternifolia	15	Yes	FACW				-	
4. Lysimachia nummularia	15	Yes	FACW	Hydrophytic Vegetat	ion Indicators:			
5. Leersia virginica	10	No	FACW	1 - Rapid Test for		getation		
6. Persicaria hydropiper	10	No	OBL	2 - Dominance Te	st is >50%			
7. Solidago altissima	10	No	FACU	3 - Prevalence Ind	lex is ≤3.0 <sup>1</sup>			
8. Urtica dioica	5	No	FACW	4 - Morphological			porting	
9. <u>Poa palustris</u>	5	No	FACW	data in Remark	s or on a separa	te sheet)		
10				Problematic Hydro	ophytic Vegetatio	on¹ (Expla	in)	
	110	=Total Cover		<sup>1</sup> Indicators of hydric so			must	
Woody Vine Stratum (Plot size: 30')				be present, unless dist	urbed or probler	natic.		
1.				Hydrophytic				
2		-Total Cavar		Vegetation	y Na			
		=Total Cover		Present? Yes_	<u> </u>			
Remarks: (Include photo numbers here or on a separ Hydrophytic vegetation indicator present as Prevalence	,	) dominant c	necies are EA	ACW FACIL and LIDI				
		, 40111114111101	220,00 0,017	, 17.00 and 01 L				

Upland 063

SOIL Sampling Point: -bl-20200605

Depth (inches)		to the dept				tor or c	onfirm the absence o	f indicators.)	
(inahaa)	Matrix			x Featur					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-5	2.5Y 4/3	100					Loamy/Clayey	sandy to silty clay loam	
5-14	2.5Y 4/4	100					Loamy/Clayey	sandy silt	
14-20	10YR 4/3	100					Loamy/Clayey	sandy clay loam	
<sup>1</sup> Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, N	 ИS=Mas	ked Sand	Grains.	<sup>2</sup> Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil I		·						s for Problematic Hydric Soils <sup>3</sup> :	
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)		Coast	Prairie Redox (A16)	
Histic Ep	ipedon (A2)		Sandy Red	dox (S5)			Iron-M	langanese Masses (F12)	
Black His	` '		Stripped M	,	3)			arent Material (F21)	
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F22)	
	Layers (A5)		Loamy Mu	-			Other	(Explain in Remarks)	
2 cm Mu	` '	(0.4.4)	Loamy Gle						
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Medox Dar		-		<sup>3</sup> Indicators	of hydrophytic vegetation and	
	ucky Mineral (S1)		Depleted [		` '			nd hydrology must be present,	
	cky Peat or Peat (S3	3)	Redox Dep		, ,			s disturbed or problematic.	
	_ayer (if observed):	•			- ()			· · · · · · · · · · · · · · · · · · ·	
Type:	zayer (ii observeu).								
Depth (in	iches):		<del></del>				Hydric Soil Present	? Yes No	
Remarks:									
	m is revised from Mi	dwest Regio	onal Supplement \	ersion 2	2.0 to inclu	ude the I	NRCS Field Indicators	of Hydric Soils in the United States	
	2018. (https://www.n	rcs.usda.go	ov/Internet/FSE_D	OCUME	NTS/nrcs	142n2 (	053171 ndf)		,
No hydric soi	l indicators present.					142p2_	00017 1.pui)		,
	No hydric soil indicators present.								
									,
HYDROLO	GY						555 Tr T.pul)		,
Wetland Hyd	drology Indicators:								
Wetland Hyd	drology Indicators: cators (minimum of o	ne is requir					<u>Secondar</u>	y Indicators (minimum of two require	
Wetland Hyd Primary Indic	drology Indicators: ators (minimum of o Water (A1)	ne is requir	Water-Stai	ned Lea	ves (B9)		Secondary Surface	ce Soil Cracks (B6)	
Wetland Hyde Primary Indice Surface V High War	drology Indicators: eators (minimum of o Water (A1) ter Table (A2)	ne is requir	Water-Stai	ned Lea iuna (B1	ves (B9) 3)		Secondary Surface Draina	ce Soil Cracks (B6) age Patterns (B10)	
Wetland Hyd Primary Indic Surface \ High Wat Saturatio	drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3)	ne is requir	Water-Stai Aquatic Fa True Aqua	ned Lea iuna (B1 tic Plant	ves (B9) 3) s (B14)	, , , , , , , , , , , , , , , , , , ,	Secondary Surface Draina	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)	
Wetland Hyd Primary Indic Surface \ High Wat Saturatio Water Ma	drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1)	ne is requir	Water-Stai Aquatic Fa True Aqua Hydrogen	ined Lea iuna (B1 tic Plant Sulfide (	ves (B9) 3) s (B14) Ddor (C1)		Secondary Surface Draina Dry-S Crayfi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8)	ed)
Primary Indice Surface N High Wat Saturatio Water Ma Sedimen	drology Indicators: eators (minimum of o Water (A1) ter Table (A2) on (A3)	ne is requir	Water-Stai Aquatic Fa True Aqua	ned Lea iuna (B1 tic Plant Sulfide ( Rhizosph	ves (B9) 3) s (B14) Odor (C1) eres on L	iving Ro	Secondary Surface Draina Dry-S Crayfi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)	<u>ed)</u>
Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)	ne is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ned Lea una (B1 tic Plant Sulfide ( Rhizosph of Reduc	ves (B9) 3) s (B14) Odor (C1) eres on L	iving Ro	Secondary Surface Draina Dry-S Crayfi sots (C3) Satura	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9)	<u>ed)</u>
Primary Indice Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma	drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)	ne is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ned Lea una (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc	ves (B9) 3) s (B14) Odor (C1) eres on L ced Iron ( tion in Till	iving Ro	Secondary	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)	<u>ed)</u>
Wetland Hyd Primary Indic Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep	drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In	nagery (B7	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or N	ined Lea iuna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface	ves (B9) 3) s (B14) Odor (C1) eres on L ced Iron (Ction in Till	iving Ro	Secondary	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) orphic Position (D2)	<u>ed)</u>
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Primary Indice Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Inundatic Sparsely Field Observa	drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave	nagery (B7	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or V 8) Other (Exp	ned Lea nuna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat blain in R	ves (B9) 3) s (B14) Odor (C1) eres on L ced Iron (C1) tion in Till (C7) a (D9) demarks)	iving Ra C4) ed Soils	Secondary	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) orphic Position (D2)	<u>ed)</u>
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Wetland Hyderimary Indice Surface Note High Water Marker M	drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Present? Ye resent?	magery (B7 Surface (B s  s	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence G Recent Iro Thin Muck Gauge or V Other (Exp No X No X No X	ned Lea duna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat olain in R Depth (i Depth (i	ves (B9) 3) s (B14) Odor (C1) eres on L ced Iron (Cition in Till (C7) a (D9) emarks) nches): nches):	iving Ro C4) led Soils	Secondary Surface Draina Dry-S Crayfit Stunte Stunte (C6) X Geom FAC-N	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) orphic Position (D2) Neutral Test (D5)	ed)
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Wetland Hyd Primary Indic Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depi Inundatic Sparsely Field Obser Surface Water Water Table Saturation Pr (includes cap Describe Rec	drology Indicators: cators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial In Vegetated Concave vations: er Present? Present? Ye present? Ye poillary fringe)	magery (B7 Surface (B s s gauge, mo	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence G Recent Iro Thin Muck Gauge or V Other (Exp No X No X No X	ned Lea duna (B1 tic Plant Sulfide ( Rhizosph of Reduc n Reduc Surface Well Dat olain in R Depth (i Depth (i	ves (B9) 3) s (B14) Odor (C1) eres on L ced Iron (Cition in Till (C7) a (D9) emarks) nches): nches):	iving Ro C4) led Soils	Secondary Surface Draina Dry-S Crayfit Stunte Stunte (C6) X Geom FAC-N	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) orphic Position (D2) Neutral Test (D5)	ed)

Site: Crooksvill	e-North Newark 138 kV Transmission L	ine Rebuild Project	<b>Date:</b> June 5, 2020	
Wetland: w-	-bl-20200605-01	-	Rater: BL, SM	
2 2 Subtotal Points	Metric 1. Wetland Area (size). (ma  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (3 to <10 acres (1.2 to <4ha) (3 to <0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12 <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) (2pts)		
4 2 Subtotal Points	<b>├──</b>	e, do not double check) 64ft) or more around wetlan in to <50m (82 to <164ft) aro im to <25m (32ft to <82ft) a age <10m (<32ft) around w one or double check & aver er forest, prairie, savannah, rubland, young second grov ntial, fenced pasture, park, o	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)  erage) h, wildlife area, etc. (7) owth forest. (5) conservation tillage, new fallow field. (3)	
23 19 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface w  X Perennial surface water (lake of the seasonal of the s	3b. vater (3) r stream) (5)  3d.	b. Connectivity. Score all that apply.  x 100 year floodplain (1) x Between stream/lake and other human use (1) x Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)  d. Duration inundation/saturation. (select one or double check & average) Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) x Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed ditch	
39 16 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or doc  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  X Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)	evelopment. (max 20 able check and average.	20 pts.)  c. Habitat alteration. Score one or double check and average  x None or none apparent (9)  Recovered (6)  Recovering (3)  Recent or no recovery (1)  ances observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging	ge.

39 subtotal this page

ORAM v. 5		Quantitative Rating			
Site:	Crooks	ville-North Newark	138 kV Transmission Line Rebuil	Date:	June 5, 2020
Wetla	and:	w-bl-20200605-01		Rater:	BL, SM
					•
39	subtotal	first page			
		. •			
39	0	Metric 5. Sp	ecial Wetlands. (max 10 pts.)		
Subtota	I Points	Check all that ap	ply and score as indicated		
			Bog (10 pts)		
			Fen (10 pts)		
			Old Growth Forest (10 pts)		
			Mature forested wetland (5 pts)		
			Lake Erie coastal/tributary wetland-unre	-	
			Lake Erie coastal/tributary wetland-restr		gy (5 pts)
			Lake Plain Sand Prairies (Oak Openings	s) (10 pts)	
			Relict Wet Prairies (10 pts)		. (10)
			Known occurrence state/federal threater	-	
			Significant migatory songbird/waterfowl Category 1 Wetland. See Question 1 of		
			Category I Welland. See Question I of	Qualitative	aung. (-10 pts)
44	5	Metric 6. Pla	ant Communities, interspersion	. microton	ography. (max 20 pts.)
Subtota		4	getation Communities	,	
			using 0 to 3 scale	Vegetatio	on Community Cover Scale
		0	Aquatic bed	0	Absent or comprises <0.1 hs (0.2474 cores) continuous area
		0	Emergent	U	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
		0	Shrub		Description of sith or committee and I want of well and I want the want of such and I want to the well and I want to the want of well and I want to the well a want to the well and I want to the well a want to the well and I want to the well and I want to the well a want to the well and I want to the well a want to the well and I want to the well a want to the well and I want to the well
		2	Forest	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
		0	Mudflats		of mountain quality, or comprises a digital care part but to or for quality
		0	Open water		Present and either comprises significant part of wetland's vegetation
			Other (list)	2	and is of moderate quality or comprises a small part and is of high quality
		Oh Harina atal (a	den visual internacion		
		·	olan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
		Select only one	High (5)		and is or night quality
			Moderately high (4)	Narrative	<b>Description of Vegetation Quality</b>
			Moderate (3)		Low spp diversity and/or predominance of nonnative or disturbance
			Moderately low (2)	low	tolerant native species
			Low (1)		Native spp are dominant component of the vegetation, although
		х	None (0)	moderate	nonnative and/or disturbance tolerant native spp can also be present,
				moderate	and species diversity moderate to moderately high, but generally w/o
		6c. Coverage of			presence of rare threatened or endangered spp
			ORAM long form for list.		A predominance of native species, with nonnative spp and/or
		Add or deduct po	,	high	disturbance tolerant native spp absent or virtually absent, and high spp
			Extensive >75 % cover (-5)		diversity and often, but not always, the presence of rare, threatened, or endangered spp
		X	Moderate 25-75% cover (-3)		
		^	Sparse 5-25% cover (-1) Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
			Absent (1)	0	Absent <0.1 ha (0.2471 acres)
			] / Book (1)	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
				2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
		6d. Microtopogra	aphy	3	High 4 ha (9.88 acres) or more
			using 0 to 3 scale		
		2	Vegetated hummocks/tussocks	Microtop	ography Cover Scale
		1	Coarse woody debris >15 cm (6")	0	Absent
		1	Standing dead > 25 cm (10") dbh	1	Present very small amounts or if more common of marginal quality
		0	Amphibian breeding pools		
				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



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 060

Date:

June 5, 2020

**Description:** 

PFO wetland

Category 2

Facing North



### Wetland 060

Date:

June 5, 2020

**Description:** 

PFO wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 060

Date:

June 5, 2020

**Description:** 

PFO wetland

Category 2

Facing South



### Wetland 060

Date:

June 5, 2020

**Description:** 

PFO wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 060

Date:

June 5, 2020

**Description:** 

PFO wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmis	sion Line	City/Cou	unty: Perry Co	ounty	Sampling Date:	06/11/2020
Applicant/Owner: AEP			_	State: OH	Sampling Point	w-aeh-200611-05
Investigator(s): AEH, SKM		Section, 7	Гownshiр, Rar	nge: S12 T17N R16V	٧	
Landform (hillside, terrace, etc.): lowland			Local relief (c	concave, convex, none)	): none	
Slope (%): 0 Lat: 39.891044		Long: -	-82.24504		Datum: NAD 83	
Soil Map Unit Name: GnBn - Glenford silt loam, 1 to 8 pe	ercent slope	es		NWI class	sification: PEM1A	
Are climatic / hydrologic conditions on the site typical for	this time of	f year?	Yes x	No (If no, ex	xplain in Remarks.)	)
Are Vegetation, Soil, or Hydrologysi	gnificantly d	listurbed? i	Are "Normal C	Circumstances" present	i? Yes <u>x</u> !	No
Are Vegetation, Soil, or Hydrologyna	aturally prot	olematic? (	(If needed, ex	plain any answers in R	emarks.)	
SUMMARY OF FINDINGS – Attach site map	p showin	ıg samplin	ig point lo	cations, transects	s, important fe	atures, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	e Sampled Ar	rea		
			n a Wetland?		No	
Wetland Hydrology Present? Yes X No					_ 	
Remarks:		<del></del>				
Sample point w-aeh-20200622-05 point in to PEM Wetl area, though wetland extent is limited. Wetland fully del						ed PEM1A
					Thany looking.	
VEGETATION – Use scientific names of plan	its. Absolute	Dominant	Indicator	г		
<u>Tree Stratum</u> (Plot size: 30' )	% Cover	Species?	Status	Dominance Test we	orksheet:	
1.				Number of Dominan	it Species That	
2.				Are OBL, FACW, or	FAC:	2 (A)
3				Total Number of Dor	minant Species	(5)
4				Across All Strata:	_	2 (B)
5	<del></del> ,	=Total Cover		Percent of Dominant	•	100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )		-10tal Cover		Are OBL, FACW, or	FAC:	100.0% (A/B)
1.				Prevalence Index w	vorksheet:	
2.				Total % Cover		oly by:
3.					85 x 1 =	85
4.				· —	10 x 2 =	20
5				· -	10 x 3 =	30
	=	=Total Cover		FACU species	0 x 4 =	0
Herb Stratum (Plot size: 5' )	20	V.	221	UPL species	0 x 5 =	0 (D)
1. Carex frankii	30	Yes	OBL	Column Totals: 1		135 (B)
Eleocharis palustris     Carex lurida	30 15	Yes No	OBL OBL	Prevalence Index	( = B/A = 1.2	29
4. Poa pratensis	10	No	FAC	Hydrophytic Veget	ation Indicators:	
5. Agrostis gigantea	10	No	FACW	X 1 - Rapid Test fo		etation
6. Juncus effusus	5	No	OBL	X 2 - Dominance		old i.o.
7. Scirpus atrovirens	5	No	OBL	X 3 - Prevalence I		
8.				4 - Morphologica	al Adaptations <sup>1</sup> (Pro	
9.				data in Rema	irks or on a separat	e sheet)
10				Problematic Hyd	drophytic Vegetation	n <sup>1</sup> (Explain)
	105 =	=Total Cover		<sup>1</sup> Indicators of hydric		
Woody Vine Stratum (Plot size: 30' )				be present, unless d	isturbed or problem	natic.
1				Hydrophytic		
2	<del></del> .	=Total Cover		Vegetation Present? Yes	o Y No	
		=Total Cover		Present: 163	s_X_ No	
Remarks: (Include photo numbers here or on a separa Hydrophytic vegetation indicator present as rapid test, o	,	necies are OF	રા			
Trydrophytic vegetation indicator process as rapid toos, s	JOHIII GIR OP	ACCIOS AIS SE	)L.			

SOIL Sampling Point: <u>aeh-200611-</u>

		o the dept				tor or c	confirm the absence	of indicators.)		
Depth	Matrix			x Featur		. 2	<b>-</b> .	_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		emarks	
0-18	10YR 4/1	85	10YR 6/8	15	<u> </u>	PL	Loamy/Clayey	Prominent red	lox conce	entrations
								-		
<sup>1</sup> Type: C=C	oncentration, D=Depl	otion DM-	Poducod Matrix M		kod Sand	d Grains	<sup>2</sup> l ocation	: PL=Pore Lining,	M-Matrix	,
Hydric Soil		elion, ixivi–	reduced Matrix, I	vio-ivias	Keu Sand	J Granis		s for Problemation		•
Histosol			Sandy Gle	ved Mati	rix (S4)			t Prairie Redox (A	-	
	ipedon (A2)		Sandy Red		(- ')			Manganese Masse	,	
Black His			Stripped M		3)			Parent Material (F:		
	n Sulfide (A4)		Dark Surfa	`	,			Shallow Dark Surf	,	)
	Layers (A5)		Loamy Mu		eral (F1)			r (Explain in Rema		•
2 cm Mu	ck (A10)		Loamy Gle	eyed Mat	rix (F2)					
Depleted	Below Dark Surface	(A11)	X Depleted N	Matrix (F	3)					
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicator	s of hydrophytic ve	egetation	and
	ucky Mineral (S1)		Depleted [	Dark Sur	face (F7)		wetla	nd hydrology mus	t be prese	ent,
5 cm Mu	cky Peat or Peat (S3)		? Redox De	pression	s (F8)		unles	s disturbed or pro	olematic.	
Restrictive I	ayer (if observed):									
Type:										
Depth (in	ches):						Hydric Soil Present	!? Y€	s <u>X</u>	No
Version 8.2,	2018. (https://www.ni	cs.usda.gc	v/Internet/FSE_D	OCUME	NTS/nrcs	s142p2_	NRCS Field Indicators _053171.pdf) centrations in pore linin	•	the Unite	ed States,
HYDROLO	GY									
	drology Indicators:									
_	ators (minimum of or	ne is requir	ed: check all that	apply)			Secondar	y Indicators (minir	num of tw	o required)
	Nater (A1)		Water-Sta		ves (B9)			ce Soil Cracks (Be		
X High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		x Drain	age Patterns (B10	))	
X Saturation	n (A3)		True Aqua	tic Plant	s (B14)		Dry-S	Season Water Tab	le (C2)	
Water Ma	arks (B1)		Hydrogen	Sulfide C	Odor (C1)	)	Crayf	fish Burrows (C8)		
	t Deposits (B2)		Oxidized F			_	` '	ation Visible on A	-	ery (C9)
	osits (B3)		Presence		,	,		ed or Stressed Pla		
	t or Crust (B4)		Recent Iro			lled Soil		norphic Position (D	02)	
	osits (B5)	/D.7	Thin Muck				<u>X</u> FAC-	Neutral Test (D5)		
	on Visible on Aerial In Vegetated Concave									
		ourrace (D	8)Other (Exp	лант нт г	emarks)		T			
Field Observ Surface Water		,	No v	Depth (ii	nches).	0				
Water Table			No <u>x</u> No	Depth (ii	· -	4				
Saturation P				Depth (ii	· -	0	Wetland Hydrolog	ov Present? Ye	s X	No
(includes cap				r /"	/	<del></del>		,,	· <u> </u>	· —
`	corded Data (stream	gauge, mo	nitoring well, aeria	l photos,	, previous	s inspec	tions), if available:			
D										
Remarks: Multiple prim	ary and secondary by	drology in	dicators present [	Primary e	ource of	hydrolo	gy is precipitation and	concentration of s	urface ru	noff in
		0,	•	•		•	fined drainage feature			

Project/Site: Crooksville-North Newark 138 kV Transmiss	sion Line	City/Cour	nty: Perry C	ounty	Sampling Date:	06/11/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-aeh-200611-05
Investigator(s): AEH, SKM		Section, T	ownship, Ra	nge: S12 T17N R16V	N	
Landform (hillside, terrace, etc.): Lowland		<u></u> เ	Local relief (c	concave, convex, none	): none	
Slope (%): 1 Lat: 39.89087			82.24517		Datum: NAD 83	
Soil Map Unit Name: GnBn - Glenford silt loam, 1 to 8 pe	ercent slope			NWI class	sification: PEM1A	
Are climatic / hydrologic conditions on the site typical for			Yes x			
Are Vegetation, Soil, or Hydrologysig		•		Circumstances" present		0
Are Vegetation , Soil , or Hydrology na				plain any answers in R		
SUMMARY OF FINDINGS – Attach site map		•		-	•	tures, etc.
Hydrophytic Vegetation Present? Yes No	×	Is the	Sampled Ar	roa		
			n a Wetland?		No X	
Wetland Hydrology Present? Yes No						
Remarks:						
Sample point Upland 064 (upl-aeh-20200611-05) is poir vegetation and hydrology criteria not met.	nt out to We	tland 061 with	hin NWI-map	pped wetland. Not a we	etland point as hydrop	ohytic
VEGETATION – Use scientific names of plant	 ts.					
· ·	Absolute	Dominant	Indicator	_		
·	% Cover	Species?	Status	Dominance Test w		
1				Number of Dominar	•	4 (Δ)
2. 3.				Are OBL, FACW, or		1 (A)
4.				Total Number of Do Across All Strata:	minant Species	2 (B)
5.				Percent of Dominan	+ Cresing That	رت,
o		Total Cover		Are OBL, FACW, or	•	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )				, ,		, ,
1.				Prevalence Index v	worksheet:	
2.				Total % Cover	of: Multiply	/ by:
3.				OBL species	10 x 1 =	10
4.				FACW species	0 x 2 =	0
5				· -		120
	=	Total Cover			<del></del>	240
Herb Stratum (Plot size: 5')				UPL species	0 x 5 =	0 (5)
Schedonorus arundinaceus	45	Yes	FACU		``	370 (B)
2. Poa pratensis	25	Yes	FAC	Prevalence Index	c = B/A = 3.36	<u> </u>
3. Juncus tenuis	15 15	No No	FACU	Hydrophytic Voget	tation Indicators:	
Trifolium repens     Carex lurida	5	No No	OBL	Hydrophytic Veget	or Hydrophytic Vege	tation
6. Scirpus atrovirens	<u> </u>	No	OBL	2 - Dominance		lalion
7.		140	OBL	3 - Prevalence I		
8.					al Adaptations¹ (Prov	vide supporting
9.					arks or on a separate	
10.				Problematic Hyd	drophytic Vegetation	<sup>1</sup> (Explain)
	110 =	Total Cover			soil and wetland hyd	
Woody Vine Stratum (Plot size: 30')					disturbed or problema	
1				Hydrophytic		
2				Vegetation		
	=	Total Cover		Present? Yes	s No_X	
Remarks: (Include photo numbers here or on a separate						
No hydrophytic vegetation indicators present, dominanc	e test is not	t > 50%, dom	inant species	s are FAC and FACU, a	and prevalence index	< > 3.0.

US Army Corps of Engineers

Upland 064

SOIL Sampling Point: <u>-aeh-200611</u>

Profile Desc	ription: (Describe	to the dept				tor or c	confirm the absence of	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 3/2	95	10YR 6/6	5	С	Pl	Loamy/Clayey	Prominent redox concentrations
1					. ——		2	
	oncentration, D=Depl	etion, RM=	Reduced Matrix, I	иS=Mas	ked Sand	Grains		PL=Pore Lining, M=Matrix.
Hydric Soil I Histosol			Sandy Cla	vod Mot	riv (C1)			s for Problematic Hydric Soils <sup>3</sup> : t Prairie Redox (A16)
	ipedon (A2)		Sandy Gle Sandy Red	-				Manganese Masses (F12)
Black His			Stripped M					Parent Material (F21)
	n Sulfide (A4)		Dark Surfa	•	))			Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu	, ,	eral (F1)			(Explain in Remarks)
2 cm Mu			Loamy Gle	-				(2) prairi iii remaine)
	Below Dark Surface	(A11)	Depleted N	•	. ,			
	rk Surface (A12)	,	X Redox Da		-		<sup>3</sup> Indicators	s of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)		Depleted [	Dark Sur	face (F7)		wetla	nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S3	)	Redox De	pression	s (F8)		unles	s disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:	,							
Depth (in	ches):						Hydric Soil Present	? Yes X No
Remarks:								<del></del>
This data for	m is revised from Mid	dwest Regio	onal Supplement \	ersion 2	2.0 to incl	ude the	NRCS Field Indicators	of Hydric Soils in the United States,
	2018. (https://www.n							
Hydric soil in	dicator present as lo	w chroma/h	iigh value matrix v	vith prom	ninent red	ox cond	centrations in pore linin	gs.
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
-	ators (minimum of o	ne is requir	ed; check all that a	apply)			<u>Secondar</u>	y Indicators (minimum of two required)
Surface \	Vater (A1)		Water-Sta		, ,		Surfa	ce Soil Cracks (B6)
High Wat	ter Table (A2)		Aquatic Fa	iuna (B1	3)		Drain	age Patterns (B10)
Saturatio	• •		True Aqua		. ,			eason Water Table (C2)
Water Ma			Hydrogen					ish Burrows (C8)
	t Deposits (B2)		Oxidized F	•		•	` ′	ation Visible on Aerial Imagery (C9)
	osits (B3)		Presence		,	,		ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro Thin Muck			ied Soil	` '	norphic Position (D2) Neutral Test (D5)
	osits (B5) on Visible on Aerial Ir	nagery (R7					FAC-I	Neutral Test (D3)
	Vegetated Concave	0 , .						
Field Observ		Curiaco (B	o)Outer (EX	Jan III I	terriarito)		1	
Surface Water		\$	No x	Depth (i	nches).	0		
Water Table				Depth (i	· -			
Saturation Pr				Depth (i	′ —		Wetland Hydrolog	y Present? Yes No X
(includes cap				, (	′ _			<u> </u>
,	corded Data (stream	gauge, mo	nitoring well, aeria	l photos	, previous	inspec	tions), if available:	
		- <del>-</del> ·			<u> </u>		<u> </u>	
Remarks:								
No hydrology	indicators present.							

ite: Crooksville	-North Newark 138 kV Transmission I	Line Rebuild Project	Date:	June 11, 2020
	neh-20200611-05		Rater:	·
	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (3  3 to <10 acres (1.2 to <4ha) (3  0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12  x <0.1 acres (0.04ha) (0 pts)  Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one	na) (5 pts) (4 pts) pts) (2pts) Pha) (1 pt)  Dunding land use. (re, do not double check) 164ft) or more around wetk	max 14 pts) and perimeter (7)	,
	MEDIUM. Buffers average 25n NARROW. Buffers average 10 x VERY NARROW. Buffers aver  2b. Intensity of surrounding land use (select of the select of the selec	om to <25m (32ft to <82ft) argue <10m (<32ft) around one or double check & ave ler forest, prairie, savannal rubland, young second grottal, fenced pasture, park,	around wetland wetland perimete erage) h, wildlife area, erowth forest. (5) , conservation tilla	perimeter (1) er (0) tc. (7) age, new fallow field. (3)
16 15 btotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake of the seasonal surface)  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regimes (select one or double check & average x  None or none apparent (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)	vater (3) r stream) (5) 3: 3: 2.	100 ye.  Betwee Part of Part of  Duration inunc (select one or  Semi- t  Regula  Season  X Season	Score all that apply.  In a floodplain (1)  In stream/lake and other human use (1)  In wetland/upland (e.g. forest), complex (1)  In priparian or upland corridor (1)  Indiation/saturation.  In double check & average)  In opermanently inundated/saturated (4)  In ally inundated/saturated (3)  In ally inundated (2)  In ally saturated in upper 30cm (12in) (1)  In sturbances observed  In point source (nonstormwater)  In filling/grading  In road bed/RR track  In dredging
21 5 Ibtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dot  None or none apparent (4)  x Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)	evelopment. (max 2 uble check and average.	C. Habitat alterat  None of Recove  Recove  X Recent  Ances observe	tion. Score one or double check and average. or none apparent (9) ered (6) ering (3) t or no recovery (1)

21 subtotal this page

Site: Crooksville-I	North Newa	ark 138 kV Transmission Line Rebuil	Date:	June 11, 2020
	eh-2020061		Rater:	AH, SM
TTOLIGITA. W-at	511-202000	11-00	i tater.	ru i, Oivi
21 subtotal first pa		On a del Madera de Core do Co		
21 0		Special Wetlands. (max 10 pts.)		
Subtotal Points	Check all tha	Reg (10 pts)		
		Bog (10 pts)		
	-	Fen (10 pts) Old Growth Forest (10 pts)		
	-	Mature forested wetland (5 pts)		
	-	Lake Erie coastal/tributary wetland-unre	stricted hydrol	oay (10 pts)
	<u> </u>	Lake Erie coastal/tributary wetland-restr	•	
	-	Lake Plain Sand Prairies (Oak Opening		· · · /
	-	Relict Wet Prairies (10 pts)	, , , ,	
	<u> </u>	Known occurrence state/federal threater	ned or endang	ered species (10)
		Significant migatory songbird/waterfowl	_	
		Category 1 Wetland. See Question 1 of	Qualitative Ra	ating. (-10 pts)
24 3		Plant Communities, interspersion	, microtop	ography. (max 20 pts.)
Subtotal Points		Vegetation Communities		0
	Score all pre	sent using 0 to 3 scale	vegetatio	n Community Cover Scale
		Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	-	1 Emergent		
	-	Shrub Forest	1	Present and either comprises small part of wetland's vegetation and is
	-	Mudflats	'	of moderate quality, or comprises a significant part but is of low quality
	-	Open water		Present and either comprises significant part of watland's versatation
	-	Other (list)	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
	L		-	quality
	6b. Horizont	tal (plan view) interspersion	_	Present and comprises significant part, or more, of wetland's vegetation
	Select only of		3	and is of high quality
		High (5)	_	
		Moderately high (4)	Narrative	Description of Vegetation Quality
		Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance
		Moderately low (2)	.511	tolerant native species
	6c. Coverage	Low (1) x None (0) le of invasive plants.	moderate	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 threatened or endangered spp
	-	le 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or
	Add or deduc	ct points for coverage	bia!	disturbance tolerant native spp absent or virtually absent, and high spp
	Γ	Extensive >75 % cover (-5)	high	diversity and often, but not always, the presence of rare, threatened, or
		Moderate 25-75% cover (-3)		endangered spp
		Sparse 5-25% cover (-1)		
		Nearly Absent <5% cover (0)		nd Open Water Class Quality
		x Absent (1)	0	Absent <0.1 ha (0.2471 acres)
			1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtop		3	High 4 ha (9.88 acres) or more
	Score all pre	sent using 0 to 3 scale	Microtono	ography Cover Scale
	-	Vegetated hummocks/tussocks     Coarse woody debris >15 cm (6")	0	Absent
	-	0 Standing dead > 25 cm (10") dbh		אספוונ
		0 Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 061

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 061

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

60616110

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

Wetland 061

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 061

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 061

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission	Line City/County: Perry Co	ounty Sampling Date: 06/11/2020
Applicant/Owner: AEP		State: OH Sampling Point: w-aeh-200611-04
Investigator(s): AEH, SKM	Section, Township, Rar	ge: S12 T17N R16W
Landform (hillside, terrace, etc.): hillslope	Local relief (c	oncave, convex, none): concave
Slope (%): 0 Lat: 39.89373	Long: -82.2491	, <u> </u>
Soil Map Unit Name: AfC - Alford silt loam, 8 to 15 percent s		NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this		No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologysignifi		ircumstances" present? Yes x No
Are Vegetation , Soil , or Hydrology natura		plain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map s		,
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Ar	02
Hydric Soil Present? Yes X No	_   '	
Wetland Hydrology Present? Yes X No	_	<u></u>
Remarks:		
Sample point w-aeh-20200611-04 point in to PEM Wetland	062 located in depression in hay f	ield. Wetland fully delineated, no downstream identified,
potentially isolated.		
VEGETATION – Use scientific names of plants.		
	solute Dominant Indicator Cover Species? Status	Dominance Test worksheet:
1.	<u> </u>	Number of Dominant Species That
2.		Are OBL, FACW, or FAC: 2 (A)
3.		Total Number of Dominant Species
4.		Across All Strata: 2 (B)
5.		Percent of Dominant Species That
<u></u>	=Total Cover	Are OBL, FACW, or FAC: 100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15')		
1		Prevalence Index worksheet:
2		Total % Cover of: Multiply by:
4.		OBL species 70 x 1 = 70 FACW species 25 x 2 = 50
5.		FAC species 0 x 3 = 0
	=Total Cover	FACU species 5 x 4 = 20
Herb Stratum (Plot size: 5' )		UPL species 0 x 5 = 0
	35 Yes OBL	Column Totals: 100 (A) 140 (B)
<u> </u>	20 Yes OBL	Prevalence Index = B/A = 1.40
3. Phalaris arundinacea	15 No FACW	
4. Verbesina alternifolia	10 No FACW	Hydrophytic Vegetation Indicators:
	10 No OBL	X 1 - Rapid Test for Hydrophytic Vegetation
6. Acorus americanus	5 No OBL	X 2 - Dominance Test is >50%
7. Parthenocissus quinquefolia	5 No FACU	X 3 - Prevalence Index is ≤3.0 <sup>1</sup>
8 9.		<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
10.		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	100 =Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30' )	<del></del>	be present, unless disturbed or problematic.
1		Hydrophytic
2.		Vegetation
	=Total Cover	Present? Yes X No No
Remarks: (Include photo numbers here or on a separate sl	neet.)	
Hydrophytic vegetation indicators present as rapid test, dor	ninant species are OBL.	

Wetland 062

SOIL Sampling Point: <u>aeh-200611-</u>

	cription: (Describe t	o the depth				tor or c	onfirm the abser	nce of indicators.)
Depth	Matrix		Redo	ox Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	5B 4/1	85	10YR 6/6	15	C	pL	Loamy/Clayey	Prominent redox concentrations
-								
<sup>1</sup> Type: C=C	Concentration, D=Depl	etion, RM=f	Reduced Matrix,	MS=Mas	ked Sand	Grains.	Loca <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil		· · · · · · · · · · · · · · · · · · ·						ators for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	eyed Mat	rix (S4)			Coast Prairie Redox (A16)
Histic E	pipedon (A2)		Sandy Red	dox (S5)				ron-Manganese Masses (F12)
Black H	istic (A3)		Stripped M	/latrix (Sc	3)		F	Red Parent Material (F21)
Hydroge	en Sulfide (A4)		Dark Surfa	ace (S7)			<del>_</del> \	/ery Shallow Dark Surface (F22)
Stratified	d Layers (A5)		Loamy Mu	ucky Mine	eral (F1)		<del>_</del>	Other (Explain in Remarks)
2 cm Mı	uck (A10)		X Loamy Gle	eyed Mat	rix (F2)			
Deplete	d Below Dark Surface	(A11)	Depleted I	Matrix (F	3)			
Thick Da	ark Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indic	cators of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Depleted [	Dark Surf	face (F7)		v	vetland hydrology must be present,
5 cm Mu	ucky Peat or Peat (S3)	)	Redox De	pression	s (F8)		u	ınless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:	•							
Depth (i	nches):		_				Hydric Soil Pre	sent? Yes X No
Remarks:	<u> </u>							
	rm is revised from Mic	lwest Regio	nal Supplement '	Version 2	2.0 to incl	ude the	NRCS Field Indica	ators of Hydric Soils in the United States,
	, 2018. (https://www.ni							·
Hydric soil ir	ndicator present as gle	eyed matrix						
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
	icators (minimum of or	ne is require	ed: check all that	apply)			Seco	ndary Indicators (minimum of two required)
-	Water (A1)		Water-Sta		ves (B9)			Surface Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa					Orainage Patterns (B10)
Saturation	` ,		True Aqua	`	,			Ory-Season Water Table (C2)
	Marks (B1)		Hydrogen			)		Crayfish Burrows (C8)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosph	eres on l	_iving Ro	oots (C3) x S	Saturation Visible on Aerial Imagery (C9)
Drift De	posits (B3)		Presence	of Reduc	ced Iron (	C4)	- · · · <u> ·</u> s	Stunted or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduc	tion in Til	lled Soils	s (C6) x C	Geomorphic Position (D2)
Iron Der	posits (B5)		Thin Muck	Surface	(C7)		XF	FAC-Neutral Test (D5)
Inundati	ion Visible on Aerial In	nagery (B7)	Gauge or	Well Data	a (D9)			
Sparsely	y Vegetated Concave	Surface (B8	8) Other (Exp	ρlain in R	emarks)			
Field Obser	rvations:							
Surface Wa	ter Present? Yes	3	No x	Depth (ii	nches):	0		
Water Table		<u> </u>	No x	Depth (ii	nches):			
Saturation F	resent? Yes	s X	No	Depth (in	nches):	10	Wetland Hydr	rology Present? Yes X No
(includes ca	pillary fringe)		<u></u> -		_			<del></del>
Describe Re	ecorded Data (stream	gauge, mor	nitoring well, aeria	al photos.	, previous	s inspect	tions), if available:	:
Remarks:								
	•	, , .		ent. Satu	ıration ev	ident on	aerial imagery 20	013 (OGRIP-OSIP 2). No downstream
drainage fea	ature identified, potent	ially isolated	J.					

Project/Site: Crooksville-North Newark 138 kV Transmission	n Line City/Co	unty: Perry Co	ounty	Sampling Da	ate: <u>06/11/</u>	2020
Applicant/Owner: AEP			State: OH	Sampling Po	oint: upl-aeh-20	00611-04
Investigator(s): AEH, SKM	Section,	Township, Rar	nge: S12 T17N R1	6W		
Landform (hillside, terrace, etc.): hillside		Local relief (c	oncave, convex, nor	ne): none		
Slope (%): 5 Lat: 39.89375	Long:		, ,		33	
Soil Map Unit Name: AfC - Alford silt loam, 8 to 15 percent s			NWI cla		-	
Are climatic / hydrologic conditions on the site typical for this		Yes x		, explain in Remark	ks.)	
Are Vegetation , Soil , or Hydrology signifi	•		ircumstances" prese			
Are Vegetation, Soil, or Hydrology nature			olain any answers in			
SUMMARY OF FINDINGS – Attach site map s			-	·	features, d	etc.
Hydrophytic Vegetation Present? Yes No X	le th	e Sampled Ar	•			
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No		ie Sampied Ar in a Wetland?		No X		
Wetland Hydrology Present? Yes No X		III W 11-00-0-1-				
Remarks:						
Sample point Upland 065 (upl-aeh-20200611-04) is point of as hydrophytic vegetation and hydrology indicators not met		bout 5 feet we	st of wetland bounda	ary in hay field. No	t a wetland p	oint
<b>VEGETATION</b> – Use scientific names of plants.						
	solute Dominant	Indicator	- · · · -			
Tree Stratum (Plot size: 30' ) %	Cover Species?	Status	Dominance Test			
			Number of Domin Are OBL, FACW,	•	0	(A)
3.			Total Number of D	-		(/-)
4			Across All Strata:	Joninant Species	2	(B)
5.			Percent of Domina	ant Species That		,
	=Total Cover	·	Are OBL, FACW,	•	0.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15' )				-		
1			Prevalence Index	x worksheet:		
2			Total % Cove	er of: Mu	ıltiply by:	
3			OBL species	0 x 1 =	0	
4			FACW species	15 x 2 =	30	
5			FAC species	15 x 3 =	45	
— (District	=Total Cover		FACU species	80 x 4 =	320	
Herb Stratum (Plot size: 5' )	45 Vec	EACH	UPL species	0 x 5 = (A)	305	/D)
Trifolium repens     Taraxacum officinale	45 Yes Yes	FACU FACU	Column Totals: Prevalence Ind	110 (A)	395	(B)
3. Juncus tenuis	15 No	FAC	FIEVAICHUE IIIu	ex - b/A	3.38	
Dunicus terruis     Phalaris arundinacea	15 No	FACW	Hydrophytic Veg	etation Indicators	· ·	
5. Schedonorus arundinaceus	15 No	FACU		t for Hydrophytic V		
6.				e Test is >50%	050	
7.				e Index is ≤3.0 <sup>1</sup>		
8.			4 - Morpholog	jical Adaptations¹ (		oorting
9.				narks or on a sepa		
10			Problematic H	lydrophytic Vegeta	ation <sup>1</sup> (Explair	n)
	110 =Total Cover		<sup>1</sup> Indicators of hydr	ric soil and wetland	d hydrology m	nust
Woody Vine Stratum (Plot size: 30')			be present, unless	s disturbed or prob	lematic.	
1			Hydrophytic			
2			Vegetation			
	=Total Cover	•	Present? Y	es No	<u>X</u>	
Remarks: (Include photo numbers here or on a separate s	,	_				_
No hydrophytic vegetation indicators present, dominance to	est is not > 50%, dor	ninant species	are FACU, and prev	valence index is >	3.0	

SOIL Sampling Point: <u>-aeh-200611</u>

	cription: (Describe t	o the depth				itor or c	onfirm the	absence c	of indicators	5.)	
Depth	Matrix	0/		x Featur		. 2	<b>-</b> .				
(inches)	Color (moist)		Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Text			Remarks	
0-18	10YR 3/2	95	10YR 6/6	5	<u>C</u>	pl	Loamy/	Clayey	Promine	nt redox cond	entrations
							-				
							-				
	oncentration, D=Depl	etion, RM=R	educed Matrix, N	ИS=Mas	ked San	d Grains	).			ining, M=Mat	
Hydric Soil										matic Hydric	: Soils³:
Histosol			Sandy Gle	-					Prairie Red		
	pipedon (A2)		Sandy Red	٠, ,					-	Masses (F12)	
Black His	, ,		Stripped M	•	5)				Parent Mater	, ,	0)
	n Sulfide (A4)		Dark Surfa							Surface (F2	2)
	Layers (A5)		Loamy Mu	-				Other	(Explain in F	Remarks)	
2 cm Mu	ck (A10) I Below Dark Surface	(111)	Loamy Gle	-							
	irk Surface (A12)	(A11)	X Redox Dar	•	•			3Indicators	e of hydronhy	ytic vegetatio	n and
	lucky Mineral (S1)		Depleted D		, ,					must be pre	
	cky Peat or Peat (S3)	١	Redox Dep		٠,					or problemation	
		1	Redex Be	310331011	3 (1 0)	1		umoo.	o diotarboa o	n problemane	·-
	Layer (if observed):										
Type: Depth (ir	ochee).		_				Hydric Sc	il Present	2	Yes X	No
. `			_				Tiyunc 30	iii r ieseiit	•	163	
Remarks:	diagtor propert as lev	v obromo/lov	value metriv wi	th promi	nont rod	ov oone	ontrations in	noro linino			
Hydric soil iii	dicator present as lov	v Cilioilla/low	/ value mainx wi	ui prom	mem red	JX COLICE	entrations in	pore inning	5.		
HYDROLO	GY										
Wetland Hv	drology Indicators:										
	cators (minimum of or	ne is required	l; check all that a	apply)				Secondar	y Indicators	(minimum of	two required)
Surface	Water (A1)		Water-Stai	ned Lea	ves (B9)			Surfa	ce Soil Crack	ks (B6)	<del>-</del>
High Wa	ter Table (A2)		Aquatic Fa					Drain	age Patterns	(B10)	
Saturation	on (A3)		True Aqua	tic Plant	s (B14)			Dry-S	eason Wate	r Table (C2)	
Water M	arks (B1)		Hydrogen	Sulfide (	Odor (C1	)		Crayf	sh Burrows	(C8)	
Sedimen	t Deposits (B2)		Oxidized F	Rhizosph	eres on l	_iving R	oots (C3)	Satur	ation Visible	on Aerial Ima	igery (C9)
Drift Dep	osits (B3)		Presence of	of Reduc	ced Iron (	C4)		Stunte	ed or Stresse	ed Plants (D1	)
	t or Crust (B4)		Recent Iro			lled Soil	s (C6)		orphic Posit		
	osits (B5)		Thin Muck		` '			FAC-I	Neutral Test	(D5)	
	on Visible on Aerial In	0 , ,	Gauge or \		, ,						
Sparsely	Vegetated Concave	Surface (B8)	Other (Exp	lain in R	Remarks)						
Field Obser											
Surface Wat		<u> </u>			nches):						
Water Table		<u> </u>			nches):						
Saturation P		·	No <u>x</u>	Depth (i	nches):		Wetland	l Hydrolog	y Present?	Yes	No X
(includes cap											
Describe Re	corded Data (stream	gauge, monit	toring well, aeria	ı pnotos	, previou	s inspec	tions), if ava	illable:			
Remarks:											
	y indicators present.										
]	,										
Ī											

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 062

Site. Clooks	wille-North Newark 138 kV Transmission Line Rebuild Project	<b>Date:</b> June 11, 2020
Wetland:	w-aeh-20200611-03	Rater: AH, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (max 6 pts)  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)  x <0.1 acres (0.04ha) (0 pts)	
4 4 Subtotal Points	Metric 2. Upland buffers and surrounding land use. (r  2a. Calculate average buffer width (select one, do not double check)  WIDE. Buffers average 50m (164ft) or more around wetl.  MEDIUM. Buffers average 25m to <50m (82 to <164ft) a  X NARROW. Buffers average 10m to <25m (32ft to <82ft)  VERY NARROW. Buffers average <10m (<32ft) around  2b. Intensity of surrounding land use (select one or double check & ave  VERY LOW. 2nd growth or older forest, prairie, savannal  X LOW. Old field (>10 years), shrubland, young second growth or older forest (Select one)  MODERATELY HIGH. Residential, fenced pasture, park, HIGH. Urban, industrial, open pasture, row cropping, min	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)  erage) h, wildlife area, etc. (7) owth forest. (5) , conservation tillage, new fallow field. (3)
14 10	Metric 3. Hydrology. (max 30 pts)	
Subtotal Points	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime.  (select one or double check & average)  None or none apparent (12)  X Recovered (7)  Recovering (3)  Recent or no recovery (1)	b. Connectivity. Score all that apply.  100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)  d. Duration inundation/saturation. (select one or double check & average) Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) x Seasonally saturated in upper 30cm (12in) (1)  Check all disturbances observed ditch
23 9 Subtotal Points	Metric 4. Habitat Alteration and Development. (max 2)  4a. Substrate disturbance. Score one or double check and average.  X None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)  Metric 4. Habitat Alteration and Development. (max 2)  4a. Substrate disturbance in the selection of the sele	c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  x Recovering (3)  Recent or no recovery (1)  ances observed  shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging

ORAM v. 5.0 Field Form Quantitative Rating

Wetland 062

Site: Crooksville-	North Newark 138 kV Transmission Line Rebuil	Date:	June 11, 2020
Wetland: w-a	eh-20200611-03	Rater:	AH, SM
23 subtotal first pa	age		
23 0 Subtotal Points	Metric 5. Special Wetlands. (max 10 pts.)  Check all that apply and score as indicated		
	Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unreduced the Erie coastal/tributary wetland-restrict Lake Plain Sand Prairies (Oak Openings Relict Wet Prairies (10 pts) Known occurrence state/federal threater Significant migatory songbird/waterfowl Category 1 Wetland. See Question 1 of	icted hydrolog s) (10 pts) ned or endang habitat or usa	y (5 pts)  pered species (10) ge (10 pts)
24 1 Subtotal Points	Metric 6. Plant Communities, interspersion  6a. Wetland Vegetation Communities  6a. Wetland Vegetation 2 and	•	
	Score all present using 0 to 3 scale  Aquatic bed Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	Shrub Forest Mudflats	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
	Open water Other (list)	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
	6b. Horizontal (plan view) interspersion Select only one	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)  Moderately high (4)	Narrative	Description of Vegetation Quality
	Moderate (3) Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	Low (1) x None (0)  6c. Coverage of invasive plants.	moderate	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 threatened or endangered spp
	Refer to Table 1 ORAM long form for list.  Add or deduct points for coverage  Extensive >75 % cover (-5)  Moderate 25-75% cover (-3)	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
	x Sparse 5-25% cover (-1) Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	Absent (1)	0	Absent <0.1 ha (0.2471 acres)
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopography	3	High 4 ha (9.88 acres) or more
	Score all present using 0 to 3 scale  Vegetated hummocks/tussocks		ography Cover Scale
	0 Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 062

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 062

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 062

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 062

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 062

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmis	ssion Line	City/Cou	inty: Perry Co	ounty	Sampling Date	e: 06/11/2020
Applicant/Owner: AEP				State: OH	Sampling Poin	nt: w-aeh-200611-03
Investigator(s): AEH, SKM		Section, T	ownship, Ran	nge: S12 T17N R16W	V	
Landform (hillside, terrace, etc.): hillside			Local relief (co	oncave, convex, none)	: concave	
Slope (%): 0 Lat: 39.89486			82.24967		Datum: NAD 83	,
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 8 to 15	percent slc			NWI class		
Are climatic / hydrologic conditions on the site typical for	-	-	Yes x			.)
Are Vegetation, Soil, or Hydrologysig		•		ircumstances" present		
Are Vegetation, Soil, or Hydrology na				olain any answers in Re		
SUMMARY OF FINDINGS – Attach site maj				•	,	eatures, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled Ar	03	<u> </u>	
			n a Wetland?		No	
Wetland Hydrology Present? Yes X No			16 11-11-11	• • • <u> </u>		
Remarks:						
Sample point w-aeh-20200622-03 point in to PEM Wetl drainage features away from wetland present, potential		∍pression alor	ng border betv	veen two pasture/hay f	fields. Wetland full	ly delineated, no
VEGETATION – Use scientific names of plan						
VEGETATION - 030 Solonidio hamos of plan	Absolute	Dominant	Indicator	_		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wo	orksheet:	
1				Number of Dominant	•	- (4)
2.				Are OBL, FACW, or		3 (A)
3				Total Number of Dor	ninant Species	o (D)
4				Across All Strata:	· <u> </u>	3 (B)
5		=Total Cover		Percent of Dominant Are OBL, FACW, or	•	100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )		- Tulai Uuvu.	Ī	AIE ODE, I AOVI, C.		100.070 (7.4.2)
1			ľ	Prevalence Index w	vorksheet:	
2.				Total % Cover of		iply by:
3.				OBL species	30 x 1 =	30
4.					45 x 2 =	90
5.				· · · · · · · · · · · · · · · · · · ·	10 x 3 =	30
	=	=Total Cover		· · · · · · · · · · · · · · · · · · ·	10 x 4 =	40
Herb Stratum (Plot size: 5' )					0 x 5 =	0
1. Phalaris arundinacea	45	Yes	FACW		95 (A)	190 (B)
2. Eleocharis palustris	15	Yes	OBL	Prevalence Index	= B/A =2	2.00
3. Carex lurida	15	Yes	OBL	Hereber wheet a Variation	O Indicators	
4. Juncus tenuis  Trifolium protonos	10	No No	FAC	Hydrophytic Vegeta		
5. <u>Trifolium pratense</u>	10	<u>No</u>	<u>FACU</u>	X 1 - Rapid Test fo		getation
6				X 2 - Dominance I		
					ndex is ≤3.0 al Adaptations <sup>1</sup> (Pr	rovide eunnorting
9.					rks or on a separa	
10.					drophytic Vegetation	
	95 =	Total Cover		<sup>1</sup> Indicators of hydric		
Woody Vine Stratum (Plot size: 30')				be present, unless di		, ,,
1.				Hydrophytic		
2.				Vegetation		
	=	=Total Cover		•	s_X_No_	
Remarks: (Include photo numbers here or on a separa	te sheet.)		•			
Hydrophytic vegetation indicators present as rapid test,	, dominant s	species are O	BL and FACW	1		

US Army Corps of Engineers

SOIL Sampling Point: <u>aeh-200611-</u>

		to the depti				tor or c	onfirm the absence of	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	5B 4/1	95	10YR 6/6	5	С	PL	Loamy/Clayey	Prominent redox concentrations
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=I	Reduced Matrix, I	MS=Masl	ked Sand	d Grains		: PL=Pore Lining, M=Matrix.
Hydric Soil	ndicators:						Indicator	s for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gle	eyed Matı	rix (S4)		? Coas	t Prairie Redox (A16)
Histic Ep	ipedon (A2)		Sandy Re	` '				Manganese Masses (F12)
Black His	` '		Stripped N	•	5)			Parent Material (F21)
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu	-			Other	(Explain in Remarks)
2 cm Mu	` '		X Loamy Gle	-				
	Below Dark Surface	(A11)	Depleted I				2	
	rk Surface (A12)		Redox Da		` '			s of hydrophytic vegetation and
	ucky Mineral (S1)		Depleted I		, ,			nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S3	)	Redox De	pressions	s (F8)		unles	s disturbed or problematic.
Restrictive I	_ayer (if observed):							
Type:								
Depth (ir	ches):						Hydric Soil Present	? Yes X No
Remarks:								
								of Hydric Soils in the United States,
	2018. (https://www.n			OCUME	NTS/nrcs	s142p2_	053171.pdf)	
Hydric soil in	dicator present as gl	eyed matrix	<u>-</u>					
LIVEROLO	0.7							
HYDROLO	GY							
Wetland Hy	drology Indicators:							
-	ators (minimum of o	ne is require						y Indicators (minimum of two required)
	Nater (A1)		Water-Sta					ce Soil Cracks (B6)
	ter Table (A2)		Aquatic Fa	•	,			age Patterns (B10)
X Saturation	• •		True Aqua					Season Water Table (C2)
Water M			Hydrogen					ish Burrows (C8)
	t Deposits (B2)		x Oxidized F			-	` '	ation Visible on Aerial Imagery (C9)
	osits (B3)		Presence			-		ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro			ieu Soii:		norphic Position (D2)
	osits (B5) on Visible on Aerial Ir	2000 (P7)	Thin Muck Gauge or		-		<u> </u>	Neutral Test (D5)
	Vegetated Concave							
		Odriace (Di	Other (EX	Janin	emarks)		1	
Field Obsert Surface Water		•	No. v	Denth (ir	nchee).	0		
Water Table			No x	Depth (in Depth (in	· -	10		
Saturation P		s <u>x</u> s x	No No	Depth (ir	′ –		Wetland Hydrolog	y Present? Yes X No
(includes cap		3 <u> </u>		Deptii (ii			Wettand Hydrolog	163 X NO
_,	corded Data (stream	gauge mor	nitoring well aeria	al photos	previous	sinspec	tions) if available	
Describe Me	solucu Data (Stream	gaage, moi	moning won, acre	p.10103,	Picvious	, mopeo	aonoj, ii avallabio.	
Remarks:								
	ary and secondary h	ydrology ind	licators present. I	Primary s	ource of	hydrolo	gy is precipitation and	concentration of surface runoff in
geomorphic	oosition. No outlet dr	ainage featı	ure present, poter	ntially iso	lated.			

Project/Site: Crooksville-North Newark 138 kV Transm	nission Line	_ City/Cou	nty: Perry Co	ounty	Sampling D	ate: 06/11/2020
Applicant/Owner: AEP		<u> </u>		State: OF	H Sampling P	oint: upl-aeh-200611-03
Investigator(s): AEH, SKM		Section, T	ownship, Rar	nge: S12 T17N R	R16W	
Landform (hillside, terrace, etc.): hillside		!	Local relief (c	concave, convex, no	one): convex	
Slope (%): 5 Lat: 39.89398		Long: -	82.2497		Datum: NAD	83
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 8 to	15 percent sk	opes, eroded		NWI o	classification: N/A	
Are climatic / hydrologic conditions on the site typical f	or this time o	f year?	Yes x	No (If n	o, explain in Remar	ks.)
Are Vegetation, Soil, or Hydrology	significantly of				sent? Yes x	
Are Vegetation, Soil, or Hydrology				plain any answers i		· <u></u>
SUMMARY OF FINDINGS – Attach site m				-	•	features, etc.
Hydrophytic Vegetation Present? Yes N	lo X	Is the	Sampled Ar	rea		
	lo X		n a Wetland?		No_X	
	lo X					<u> </u>
Remarks:						
Sample point Upland 066 (upl-aeh-20200611-03) is p wetland point as no wetland criteria met.	oint out to W	etland 063, ab	out 10' south	of boundary at hig	her elevation in hay	/ field. Not a
VEGETATION – Use scientific names of pla						
VEGETATION - OSE SCIENTING HARNES OF PIE	Absolute	Dominant	Indicator	Γ		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Tes	st worksheet:	
1.					inant Species That	
2.				Are OBL, FACW		1 (A)
3.					Dominant Species	2 (B)
4				Across All Strata		3 (B)
5		=Total Cover		Percent of Domi Are OBL, FACW	nant Species That / or FAC:	33.3% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	)	- Total Gover		AIG ODE, I AOTT	7, 01 1 AC.	(F(B)
1	,			Prevalence Inde	ex worksheet:	
2.				Total % Co		ultiply by:
3.				OBL species	0 x 1 =	0
4.				FACW species	10 x 2 =	20
5				FAC species	35 x 3 =	105
		=Total Cover		FACU species	50 x 4 =	200
Herb Stratum (Plot size: 5' )	22			UPL species	15 x 5 =	75 (B)
1. Phleum pratense	30	Yes	FACU	Column Totals:	110 (A)	400 (B)
2. Ranunculus hispidus	20	Yes	FAC UPL	Prevalence In	idex = B/A =	3.64
Leucanthemum vulgare     Agrimonia parviflora	15	Yes No	FACW	Hydrophytic Ve	egetation Indicator	6'
5. Taraxacum officinale	10	No	FACU		est for Hydrophytic \	
6. Trifolium pratense	10	No	FACU		ice Test is >50%	/egetation
7. Poa pratensis	10	No	FAC		ice Index is ≤3.0 <sup>1</sup>	
8. Juncus tenuis	5	No	FAC			(Provide supporting
9.					emarks or on a sepa	
10				Problematic	Hydrophytic Vegeta	ation¹ (Explain)
	110	=Total Cover		,	dric soil and wetlan	, ,,
Woody Vine Stratum (Plot size: 30'	)			be present, unles	ss disturbed or prob	olematic.
1				Hydrophytic		
2		<del></del>		Vegetation	Y No.	· ·
		=Total Cover		Present?	Yes No	<u>X</u>
Remarks: (Include photo numbers here or on a sepa	,	-1 - FOO/ dom	int angolog			
No hydrophytic vegetation indicators present, domina	ince test is no	)[ > 50%, uom	Inant species	; are FAU, FAUU ai	NG UPL, and prevar	ence inuex > 3.0

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Upland 066

SOIL Sampling Point: <u>|-aeh-200611</u>

		to the dept				tor or c	onfirm the absence of ir	ndicators.)
Depth (in aboa)	Matrix			x Featur		1 2	Tarakuma	Damanka
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 3/2	100					Loamy/Clayey	
-								
1- 0.0							2, ,,	
	oncentration, D=Dep	etion, RM=	Reduced Matrix, N	/IS=Mas	ked Sand	Grains		L=Pore Lining, M=Matrix.
Hydric Soil Histosol			Sandy Gle	vod Mat	riv (Q1)			or Problematic Hydric Soils <sup>3</sup> : airie Redox (A16)
	pipedon (A2)		Sandy Red					ganese Masses (F12)
Black His			Stripped M					ent Material (F21)
	n Sulfide (A4)		Dark Surfa	,	J)			allow Dark Surface (F22)
	I Layers (A5)		Loamy Mu		eral (F1)			xplain in Remarks)
	ck (A10)		Loamy Gle	-	. ,			Aprain in remarks)
	d Below Dark Surface	(A11)	Depleted N					
	ark Surface (A12)	` ,	Redox Dar		-		<sup>3</sup> Indicators of	hydrophytic vegetation and
	lucky Mineral (S1)		Depleted [	Dark Sur	face (F7)			hydrology must be present,
	cky Peat or Peat (S3	)	Redox De					sturbed or problematic.
Restrictive	Layer (if observed):					Ī		
Type:								
Depth (ir	nches):		_				Hydric Soil Present?	Yes No X
Remarks:								
	m is revised from Mid	dwest Regio	nal Supplement \	ersion 2	2.0 to incl	ude the	NRCS Field Indicators of	Hydric Soils in the United States,
	2018. (https://www.n							•
No hydric so	il indicators present a	as low chror	ma/low value matr	ix with n	o redox o	concentr	ations present.	
113/22201.6								
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of o	ne is require	ed; check all that a	apply)			Secondary In	<u>idicators (minimum of two required)</u>
	Water (A1)		Water-Stai		` '			Soil Cracks (B6)
	ter Table (A2)		Aquatic Fa	`	,			Patterns (B10)
Saturation			True Aqua					son Water Table (C2)
	arks (B1)		Hydrogen		` '			Burrows (C8)
	nt Deposits (B2)		Oxidized F	•		·	` '	on Visible on Aerial Imagery (C9)
	oosits (B3)		Presence of					or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro			ilea Soil		phic Position (D2)
	osits (B5) on Visible on Aerial Ir	nagery (R7)	Thin Muck Gauge or \				FAC-Net	utral Test (D5)
	Vegetated Concave	0 , ,						
Field Obser		- Curiaco (D	Other (Exp	, a	terriarito)			
Surface Wat		\$	No x	Denth (i	nches):	0		
Water Table		s			nches):			
Saturation P					nches):		Wetland Hydrology F	Present? Yes No X
(includes car			<u></u>	_ op (.			l iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	
	corded Data (stream	gauge, moi	nitoring well, aeria	l photos	, previous	s inspec	tions), if available:	
					·			
Remarks:								
No hydrolog	y indicators present.							

Site: Crooksville	e-North Newark 138 kV Transmission L	Line Rebuild Project	Date:	June 11, 2020
Wetland: w-	aeh-20200611-03		Rater:	AH, SM
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (3 ato <10 acres (1.2 to <4ha) (3 ato <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12 x  <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts)		
1 1 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one WIDE. Buffers average 50m (1 MEDIUM. Buffers average 25m NARROW. Buffers average 10 x VERY NARROW. Buffers aver  2b. Intensity of surrounding land use (select of the companies) VERY LOW. 2nd growth or old LOW. Old field (>10 years), shi MODERATELY HIGH. Resider	e, do not double check)  164ft) or more around wetten to <50m (82 to <164ft) a  10m to <25m (32ft to <82ft)  12age <10m (<32ft) around  12age <10m (sage)  13age <10m (sage)  14age <10m (sage)  15age <10m (sage)  15age)  15age <10m (sage)  15age)  15age)  16age)  16age	land perimeter (7 Irround wetland p ) around wetland wetland perimet erage) Ih, wildlife area, 6 owth forest. (5) , conservation til	berimeter (4) d perimeter (1) ter (0) etc. (7) llage, new fallow field. (3)
11 10 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake of the season o	vater (3) r stream) (5) 3 3. 2. (a)	Bb. Connectivity.  100 ye Betwee Part o Part o  Bd. Duration inun (select one o Regul Seaso X Seaso	Score all that apply. ear floodplain (1) een stream/lake and other human use (1) of wetland/upland (e.g. forest), complex (1) of riparian or upland corridor (1) endation/saturation. or double check & average) e to permanently inundated/saturated (4) elarly inundated/saturated (3) enally inundated (2) enally saturated in upper 30cm (12in) (1) eisturbances observed  point source (nonstormwater) elarly inundated/saturated (3) enally road bed/RR track elarly inundated (3) enally saturated in upper 30cm (12in) (1)
15 4 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dout None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select one. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1)	evelopment. (max in the check and average.	20 pts.)  Ac. Habitat altera None Recov Recov X Recer  ances observ	ation. Score one or double check and average. or none apparent (9) wered (6) wering (3) nt or no recovery (1)

15 subtotal this page

Sita: Crooksville-N	orth Newark 138 kV Transn	nission Line Rehuil	Dato.	June 11, 2020
Wetland: w-ael	n-20200611-03	ı	Rater:	AH, SM
15 subtotal first pag	•			
15 0	Metric 5. Special Wetland	s (max 10 nts )		
	Check all that apply and score as in			
oubtotal Folitio	Bog (10 pts)	<del>raroato a</del>		
	Fen (10 pts)			
	Old Growth Fore	st (10 pts)		
	Mature forested	,		
		l/tributary wetland-unrest	ricted hydrolo	ogy (10 pts)
	Lake Erie coasta	l/tributary wetland-restrict	ted hydrology	/ (5 pts)
	Lake Plain Sand	Prairies (Oak Openings)	(10 pts)	
	Relict Wet Prairie	es (10 pts)		
	Known occurrence	ce state/federal threatene	ed or endange	ered species (10)
	Significant migate	ory songbird/waterfowl ha	abitat or usag	e (10 pts)
	Category 1 Wetla	and. See Question 1 of C	Qualitative Ra	iting. (-10 pts)
13 <u>-2</u>	Metric 6. Plant Communit	ies, interspersion,	microtope	ography. (max 20 pts.)
-	a. Wetland Vegetation Communit			
5	Score all present using 0 to 3 scale	·	Vegetatio	n Community Cover Scale
	Aquatic bed		0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	1 Emergent	_		
	Shrub		4	Present and either comprises small part of wetland's vegetation and is
	Forest		1	of moderate quality, or comprises a significant part but is of low quality
	Mudflats	-		
	Open water Other (list)		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
	Other (list)		2	quality
	b. Horizontal (plan view) intersper	rsion		Present and comprises significant part, or more, of wetland's vegetation
-	Select only one		3	and is of high quality
	High (5)	L		
	Moderately high	(4) I	Narrative	Description of Vegetation Quality
	Moderate (3)		low	Low spp diversity and/or predominance of nonnative or disturbance
	Moderately low (	2)	IOW	tolerant native species
	Low (1)			Native spp are dominant component of the vegetation, although
	x None (0)		moderate	nonnative and/or disturbance tolerant native spp can also be present,
				and species diversity moderate to moderately high, but generally w/o
<del>-</del>	Coverage of invasive plants.			presence of rare threatened or endangered spp
	Refer to Table 1 ORAM long form form form form form form form for the deduct points for coverage	or list.		A predominance of native species, with nonnative spp and/or
,		( 5)	high	disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or
	Extensive >75 %  x Moderate 25-75%	` '		endangered spp
	x Moderate 25-75% Sparse 5-25% co	` ′		5 11
	Nearly Absent <5		Mudflat ar	nd Open Water Class Quality
	Absent (1)	570 00001 (0)	0	Absent <0.1 ha (0.2471 acres)
	/ book (1)	-	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
<u>(</u>	id. Microtopography		3	High 4 ha (9.88 acres) or more
	Score all present using 0 to 3 scale	<u>-</u>		
	0 Vegetated humm	nocks/tussocks	Microtopo	graphy Cover Scale
	0 Coarse woody de	ebris >15 cm (6")	0	Absent
	0 Standing dead >	25 cm (10") dbh	1	Present very small amounts or if more common of marginal quality
	0 Amphibian breed	ling pools	•	
			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



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 063

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 063

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

AEP

Site Location:

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

**Project No.** 60616110

### Wetland 063

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 063

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 063

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmis	sion Line	_ City/Cou	nty: Perry Co	ounty	Sampling Date	e: <u>06/11/2020</u>
Applicant/Owner: AEP		<u> </u>		State: OH	Sampling Poir	nt: w-aeh-200611-02
Investigator(s): AEH, SKM		Section, T	ownship, Ran	nge: S12 T17N R16	w	
Landform (hillside, terrace, etc.): lowland			Local relief (co	oncave, convex, none	e): <u>none</u>	
Slope (%): 0 Lat: 39.89709		Long: -	82.25299		Datum: NAD 83	
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 8 to 15	percent slo	pes, eroded		NWI clas	sification: N/A	
Are climatic / hydrologic conditions on the site typical for	this time of	f year?	Yes x	No (If no, e	explain in Remarks	j.)
Are Vegetation, Soil, or Hydrologysig	gnificantly d	listurbed? F	ارد "Normal C	ircumstances" presen		
Are Vegetation , Soil , or Hydrology na				olain any answers in F		
SUMMARY OF FINDINGS – Attach site map				-	·	atures, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled Are	ea		
	<del></del>		n a Wetland?		No	
Wetland Hydrology Present? Yes X No						
Remarks:						
Sample point w-aeh-20200611-02 is point in to PEM Wo swale outside study area, potentially isolated.	etland 064,	small wetland	d in hay field. \	Wetland fully delineat	ed, drains to south	through grassy
VEGETATION – Use scientific names of plan	ıts.					
·	Absolute	Dominant	Indicator	_		
Tree Stratum (Plot size: 30' )	% Cover	Species?	Status	Dominance Test w	orksheet:	
1				Number of Dominar	•	2 (A)
2. 3.			[	Are OBL, FACW, or	<del>-</del>	(A)
			<u> </u>	Total Number of Do Across All Strata:	minant Species	3 (B)
5.			<del></del> [		- Consider That	<u> </u>
J	<del></del> :	=Total Cover	<u> </u>	Percent of Dominar Are OBL, FACW, or	•	66.7% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )		10.01.00.1.		7110 002,		00.170
1			Ī	Prevalence Index	worksheet:	
2.				Total % Cover		iply by:
3.				OBL species	5 x 1 =	5
4.				FACW species	25 x 2 =	50
5.				FAC species	17 x 3 =	51
	=	=Total Cover		FACU species	15 x 4 =	60
Herb Stratum (Plot size: 5' )			1	UPL species	0 x 5 =	0
1. Carex scoparia	25	Yes	FACW	Column Totals:	62 (A)	166 (B)
2. Poa pratensis	15	Yes	FAC	Prevalence Index	x = B/A =2	2.68
3. Digitaria sanguinalis	15	Yes	FACU	:: 1 d- W		
4. Juncus effusus	5	No No	OBL	Hydrophytic Veget		
5. Apocynum cannabinum	2	<u>No</u>	<u>FAC</u>		for Hydrophytic Ve	getation
6				X 2 - Dominance X 3 - Prevalence		
			<del></del> [		index is ≤3.0° cal Adaptations¹ (Pi	ravida supporting
					arks or on a separa	
9. 10.					drophytic Vegetation	
10	62 =	=Total Cover	<del></del> ]	<sup>1</sup> Indicators of hydric		
Woody Vine Stratum (Plot size: 30')		•		be present, unless		, ,,
1.			Ī	Hydrophytic	•	
2.				Vegetation		
		=Total Cover		•	es X No	
Remarks: (Include photo numbers here or on a separate	te sheet.)					
Hydrophytic vegetation indicators present as dominance	,	%, dominant s	pecies are FA	CW, FAC and FACU		

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SOIL Sampling Point: <u>aeh-200611-</u>

		o the dept				tor or c	onfirm the absence	of indicators.)		
Depth	Matrix			x Featur		. 2	<b>-</b> .			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	-	marks	
0-18	10YR 5/1	85	10YR 6/8	15	С	PL	Loamy/Clayey	Prominent red	ox conce	ntrations
								-		
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion. RM=	Reduced Matrix. N	/IS=Mas	ked Sand	Grains	2Location	: PL=Pore Lining,	M=Matrix	ζ.
Hydric Soil		,	,					s for Problematic		•
Histosol	(A1)		Sandy Gle	yed Matı	rix (S4)			t Prairie Redox (A1	-	
Histic Ep	ipedon (A2)		Sandy Red				Iron-l	Manganese Masse	s (F12)	
Black His	stic (A3)		Stripped M	atrix (S6	6)		Red I	Parent Material (F2	21)	
Hydroge	n Sulfide (A4)		Dark Surfa	ce (S7)			Very	Shallow Dark Surfa	ace (F22)	)
Stratified	Layers (A5)		Loamy Mu	-			Other	r (Explain in Rema	rks)	
2 cm Mu	, ,		Loamy Gle	-						
	Below Dark Surface	(A11)	X Depleted N	•	•		2			
	rk Surface (A12)		Redox Dar		` '			s of hydrophytic ve	-	
	ucky Mineral (S1)		Depleted [		, ,			nd hydrology must		ent,
5 cm Mu	cky Peat or Peat (S3)		Redox Dep	pressions	s (F8)		unles	s disturbed or prob	olematic.	
	_ayer (if observed):									
Type:										
Depth (ir	icnes):		_				Hydric Soil Present	r? Ye	s <u>X</u>	No
Remarks:				,			NDOOF: III I' I			1011
	m is revised from iviid 2018. (https://www.ni						NRCS Field Indicators	s of Hydric Solls in	tne Unite	ed States,
	dicator present as lov			000		/	.000171.pui)			
HYDROLO	GY									
Wetland Hyd	drology Indicators:									
_	cators (minimum of or	ne is requir	ed; check all that a	apply)			Secondar	y Indicators (minin	num of tw	o required)
Surface \	Water (A1)		Water-Stai	ned Lea	ves (B9)		Surfa	ce Soil Cracks (B6	5)	
X High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		Drain	age Patterns (B10	)	
X Saturation			True Aqua				Dry-S	Season Water Tabl	e (C2)	
Water M			Hydrogen					ish Burrows (C8)		
	t Deposits (B2)		x Oxidized F	•		-	` ' —	ation Visible on Ae	_	ery (C9)
x Drift Dep	, ,		Presence of		-			ed or Stressed Pla		
	t or Crust (B4)		Recent Iro			led Solls		norphic Position (D	2)	
	osits (B5) on Visible on Aerial In	nagony (P7	Thin Muck		-		X FAC-	Neutral Test (D5)		
	Vegetated Concave									
Field Obser		Canada (B	OfOther (Exp	nani iii i	cmarks)		1			
Surface Water		•	No x	Depth (ir	nches).	0				
Water Table				Depth (ir	· -	5				
Saturation P				Depth (ir		2	Wetland Hydrolog	av Present? Ye	s X	No
(includes cap					′ =					
	corded Data (stream	gauge, mo	nitoring well, aeria	l photos,	previous	inspec	tions), if available:			
D										
Remarks:	ary and secondary by	drology in	dicators present E	Priman, e	ource of	hydrolo	gy is concentration of	nrecinitation and s	ırface rur	noff in
		٠,	•	•			feature present, pote		ariace iui	IOII III
5 1 -1			3 3 7 -	3	,		, ,,	•		

Project/Site: Crooksville-North Newark 138 kV Trans	smission Line	City/Cou	nty: Perry C	County	Sampling Dat	te: <u>06/1</u>	1/2020
Applicant/Owner: AEP				State: OH	Sampling Poi	nt: upl-ael	h-200611-02
Investigator(s): AEH, SKM		Section, T	ownship, Ra	inge: S2. T17N. R16W	· ·		
Landform (hillside, terrace, etc.): flat			Local relief (d	concave, convex, none):	none		
Slope (%): 0 Lat: 39.897				,	Datum: NAD 83	3	
Soil Map Unit Name: Cincinnati silt loam, 8 to 15 per	rcent slopes (Ck			NWI classi	fication: N/A		
Are climatic / hydrologic conditions on the site typica			Yes x			s.)	
Are Vegetation x , Soil x , or Hydrology	significantly d	isturbed? A	Are "Normal (	Circumstances" present?			
Are Vegetation, Soil, or Hydrology				cplain any answers in Re			_
SUMMARY OF FINDINGS – Attach site			g point lo	cations, transects	, important f	eatures	, etc.
Hydrophytic Vegetation Present? Yes	No	Is the	Sampled A	rea			
	No		n a Wetland?		No X		
	No X						
Remarks:				_			
Sample point Upland 067 (upl-aeh-20200611-02) is circumstances, disturbed vegetation and soils). Not	•					normal	
VEGETATION – Use scientific names of p	olants.						
·	Absolute	Dominant	Indicator	1			
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wo	rksheet:		
1. 2.				Number of Dominant Are OBL, FACW, or F	•	0	(A)
3				Total Number of Dom	_	- 0	_ (A)
4.				Across All Strata:	Illiant oheries	2	(B)
5.				Percent of Dominant	Species That		_` ′
	=	Total Cover		Are OBL, FACW, or F	•	0.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	_)						
1.				Prevalence Index w			
2.				Total % Cover o		tiply by:	_
3. 4.				· —	$\frac{0}{0}$ $x 1 = $ x 2 =	0	_
5.				·	5 x 3 =	15	_
J		Total Cover			5 x4=	60	_
Herb Stratum (Plot size: 5' )		1010			25 x 5 =	125	_
1. Glycine max	25	Yes	UPL		15 (A)	200	(B)
2. Digitaria sanguinalis	15	Yes	FACU	Prevalence Index	= B/A = 2	4.44	_
3. Juncus tenuis	5	No	FAC				
4				Hydrophytic Vegeta			
5				1 - Rapid Test for		getation	
6.				2 - Dominance To			
7.				3 - Prevalence In			
8.				4 - Morphologica	l Adaptations' (P ks or on a separ		
9 10.				Problematic Hydi			
10	45 =	Total Cover		<sup>1</sup> Indicators of hydric s			
Woody Vine Stratum (Plot size: 30'	)	10101 02		be present, unless dis			ไม่น่อเ
1.	<b>-</b> ′			Hydrophytic	,		
2.				Vegetation			
	<u> </u>	Total Cover		Present? Yes	No _	_ <del></del>	
Remarks: (Include photo numbers here or on a se	parate sheet.)			<u>l</u>		<del></del> _	
No hydrophytic vegetation indicators present as do	minance test is r		•	ies are FACU and UPL,	and prevalence	index > 3	.0.
Remnant and nearby undisturbed vegetation not do	ominated by hyd	ironhytic year	-tation				

US Army Corps of Engineers

Upland 067

SOIL Sampling Point: |-aeh-200611

	cription: (Describe t	o the depth				tor or c	onfirm the absenc	e of indicators.)
Depth	Matrix			ox Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 5/1	95	10YR 6/8	5	С	PL	Loamy/Clayey	Prominent redox concentrations
							-	
								_
							-	_
<sup>1</sup> Type: C=C	Concentration, D=Depl	etion, RM=F	Reduced Matrix, I	MS=Mas	ked Sano	d Grains.	. <sup>2</sup> Locatio	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:							tors for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)		Co	ast Prairie Redox (A16)
Histic Er	pipedon (A2)		Sandy Red	dox (S5)			Iro	n-Manganese Masses (F12)
Black Hi	istic (A3)		Stripped M	/latrix (Se	3)		Re	d Parent Material (F21)
Hydroge	en Sulfide (A4)		Dark Surfa	ace (S7)			Ve	ry Shallow Dark Surface (F22)
Stratified	d Layers (A5)		Loamy Mu	ıcky Mine	eral (F1)		Oth	ner (Explain in Remarks)
2 cm Mı	uck (A10)		Loamy Gle	eyed Mat	rix (F2)			
Depleted	d Below Dark Surface	(A11)	X Depleted N	Matrix (F	3)			
Thick Da	ark Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicat	tors of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Depleted [	Dark Sur	face (F7)		we	tland hydrology must be present,
5 cm Mı	ucky Peat or Peat (S3)	)	Redox De	pression	s (F8)		unl	ess disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (i	nches):		_				Hydric Soil Prese	ent? Yes X No
Remarks:	· <u></u>							
	rm is revised from Mic	lwest Regio	nal Supplement '	Version 2	2.0 to incl	ude the	NRCS Field Indicate	ors of Hydric Soils in the United States,
	, 2018. (https://www.ni							•
Hydric soil ir	ndicator present as lov	w chroma/hi	igh value matrix					
HYDROLO	OGY							
Wetland Hy	drology Indicators:							
	icators (minimum of or	ne is require	ed: check all that	apply)			Second	dary Indicators (minimum of two required)
-	Water (A1)	10 10 . 5	Water-Sta		ves (B9)			rface Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa					ainage Patterns (B10)
Saturation			True Aqua	•	,			y-Season Water Table (C2)
	/arks (B1)		Hydrogen			)		ayfish Burrows (C8)
	nt Deposits (B2)		Oxidized F					turation Visible on Aerial Imagery (C9)
	posits (B3)		Presence	•		•	` '	unted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro		,	,		comorphic Position (D2)
	posits (B5)		Thin Muck					C-Neutral Test (D5)
	ion Visible on Aerial In	nagery (B7)			` '			(
	y Vegetated Concave				` '			
Field Obser	rvations:			-				
	ter Present? Yes	3	No x	Depth (i	nches):	0		
Water Table		<u> </u>			nches):			
Saturation P					nches):		Wetland Hydrol	logy Present? Yes No X
(includes ca	pillary fringe)				′ –			<u> </u>
	ecorded Data (stream	gauge, mor	nitoring well, aeria	al photos	, previous	s inspect	tions), if available:	
	,	5 0 /	,	•	· •	·	,,	
Remarks:								
No hydrophy	ytic vegetation indicate	ors present.	. No evidence of $\epsilon$	existing f	ield tile th	nroughou	ut area.	

	e-North Newark 138 kV Transmission I	Line Rebuild Project	Date:	June 11, 2020
<mark>/etland:</mark> w-	aeh-20200611-02		Rater:	AH, SM
1 1 btotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  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)  x 0.1 to <0.3 acres (0.04 to <0.12  <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts)		
2 1 ubtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select on MEDIUM. Buffers average 25n NARROW. Buffers average 10 x VERY NARROW. Buffers average 10 x	e, <u>do not double check)</u> 164ft) or more around wetla n to <50m (82 to <164ft) an 0m to <25m (32ft to <82ft)	and perimeter (7) round wetland per around wetland p	rimeter (4) perimeter (1)
	2b. Intensity of surrounding land use (select of VERY LOW. 2nd growth or old LOW. Old field (>10 years), shi MODERATELY HIGH. Resider X HIGH. Urban, industrial, open p	er forest, prairie, savannal rubland, young second gro ntial, fenced pasture, park,	n, wildlife area, etc with forest. (5) conservation tilla	nge, new fallow field. (3)
17 15 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake of the season o	vater (3) r stream) (5)	100 year Between Part of v Part of v A. Duration inundar (select one or Semi- to	Score all that apply.  ar floodplain (1)  n stream/lake and other human use (1) wetland/upland (e.g. forest), complex (1) riparian or upland corridor (1)  ation/saturation.  double check & average) o permanently inundated/saturated (4) rly inundated/saturated (3)
	x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average x None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	e)	x Season	ally inundated (2) ally saturated in upper 30cm (12in) (1) ally saturated in upper 30cm (12in) (12in) (12in) ally saturated in upper 30cm (12in) (12in) (12in) (12in) (12in) (12in) ally saturated in upper 30cm (12in) (12i
23 6 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dot  None or none apparent (4)  Recovered (3)  X Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.	evelopment. (max 2 uble check and average.	20 pts.)  C. Habitat alterati  None or  Recove  x Recove	ion. Score one or double check and average. r none apparent (9) rred (6)
	Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1)	Check all disturbated mowing grazing clearcutting selective cutting woody debris removed toxic pollutants	inces observe	

DRAM v. 5.0 Field Form Quantitative Rati		.lb (	
	Newark 138 kV Transmission Line Rebui	Date:	June 11, 2020
Wetland: w-aeh-20	200611-02	Rater:	AH, SM
		-	
23 subtotal first page			
23 0 Meti	ric 5. Special Wetlands. (max 10 pts.)		
	k all that apply and score as indicated		
	Bog (10 pts)		
	Fen (10 pts)		
	Old Growth Forest (10 pts)		
	Mature forested wetland (5 pts)		
	Lake Erie coastal/tributary wetland-unre	estricted hydrol	ogy (10 pts)
	Lake Erie coastal/tributary wetland-restr	ricted hydrolog	y (5 pts)
	Lake Plain Sand Prairies (Oak Opening	s) (10 pts)	
	Relict Wet Prairies (10 pts)		
	Known occurrence state/federal threate	_	
	Significant migatory songbird/waterfowl		
	Category 1 Wetland. See Question 1 or	t Qualitative R	ating. (-10 pts)
20	wie C. Blant Communities interes		agrandes (may 20 mtg.)
	ric 6. Plant Communities, interspersion	i, inicrotop	ograpny. (max 20 pts.)
	Vetland Vegetation Communities	Vocatati	n Community Cover Seele
Score	e all present using 0 to 3 scale	vegetatio	n Community Cover Scale
	Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	1 Emergent Shrub		
	Forest	1	Present and either comprises small part of wetland's vegetation and is
	Mudflats	'	of moderate quality, or comprises a significant part but is of low quality
	Open water		Present and either comprises significant part of wetland's vegetation
	Other (list)	2	and is of moderate quality or comprises a small part and is of high
			quality
6b. F	Horizontal (plan view) interspersion	_	Present and comprises significant part, or more, of wetland's vegetation
	t only one	3	and is of high quality
	High (5)	-	
	Moderately high (4)	<b>Narrative</b>	Description of Vegetation Quality
	Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance
	Moderately low (2)	IOW	tolerant native species
	Low (1)	1	Native spp are dominant component of the vegetation, although
	x None (0)	moderate	nonnative and/or disturbance tolerant native spp can also be present,
			and species diversity moderate to moderately high, but generally w/o
	Coverage of invasive plants.		presence of rare threatened or endangered spp
	to Table 1 ORAM long form for list. or deduct points for coverage		A predominance of native species, with nonnative spp and/or
Add C		high	disturbance tolerant native spp absent or virtually absent, and high spp
	Extensive >75 % cover (-5)		diversity and often, but not always, the presence of rare, threatened, or endangered spp
	Moderate 25-75% cover (-3)		5
	Sparse 5-25% cover (-1)	Mudflat a	nd Open Water Class Quality
	Nearly Absent <5% cover (0)	0	Absent <0.1 ha (0.2471 acres)
	x Absent (1)	1	Low 0.1 ha to <1 ha (0.2471 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
6d A	Microtopography	3	High 4 ha (9.88 acres) or more
	e all present using 0 to 3 scale		, C (v
30016	1 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale
	0 Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh		
	0 Amphibian breeding pools	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
		2	amounts of highest quality
		3	Present in moderate or greater amounts and of highest quality
			1 1996 It in moderate of greater amounts and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 064

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 064

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 064

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 064

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 064

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



### Wetland 065

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Trans	mission Line	City/Cou	nty: Perry Co	ounty	Sampling Date	e: <u>06/10/2020</u>
Applicant/Owner: AEP			-	State: OH	Sampling Poir	t: w-aeh-200610-10
Investigator(s): AEH, SKM		Section, T	ownship, Ran	ige: S2. T17N. R16W		
Landform (hillside, terrace, etc.): floodplain		<del></del>	Local relief (co	oncave, convex, none):	none	
Slope (%): 0 Lat: 39.900445		Long: -	82.255358		Datum: NAD 83	
Soil Map Unit Name: Westmoreland silt loam, 25 to 3	35 percent slop	es (WmE)		NWI classi	fication: N/A	
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes x	No (If no, ex	plain in Remarks	.)
Are Vegetation , Soil , or Hydrology	significantly o	listurbed? A	Are "Normal C	ircumstances" present?		
Are Vegetation , Soil , or Hydrology			If needed, exp	olain any answers in Re	marks.)	<u> </u>
SUMMARY OF FINDINGS – Attach site n				-	•	atures, etc.
Hydrophytic Vegetation Present? Yes X	No	Is the	Sampled Ar	ea		
	No		n a Wetland?		No	
<u></u>	No					
Remarks:		<u> </u>				
Point in to PEM Wetland 065 is located within the flo	odplain of inte	rmittent Strea	ım 062. Wetla	nd exetnds to north out	side study area.	
<b>VEGETATION</b> – Use scientific names of pl						
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wo	rkehoot:	
1.	70 COVE	оресіез:	Status	Number of Dominant		
2.	_			Are OBL, FACW, or F	•	1 (A)
3.				Total Number of Dom		` ` `
4.				Across All Strata:	·	1 (B)
5				Percent of Dominant		
		=Total Cover		Are OBL, FACW, or F	AC:	100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	_)		-			
1. 2.				Prevalence Index w		nlu hu
3				Total % Cover o OBL species 4	5 x 1 =	ply by: 45
4.					$\frac{0}{0}$ $\times 2 =$	160
5.				· —	x 3 =	0
		Total Cover			) x 4 =	0
Herb Stratum (Plot size: 5' )				UPL species	) x 5 =	0
1. Onoclea sensibilis	70	Yes	FACW	Column Totals: 12	25 (A)	205 (B)
2. Carex lurida	20	No	OBL	Prevalence Index	= B/A =1	.64
3. Carex crinita		No	OBL			
4. Juncus effusus	_ 5	No No	OBL	Hydrophytic Vegeta		
5. Dichanthelium clandestinum	5 3	No No	FACW FACW	1 - Rapid Test for		getation
Carex annectens     Impatiens capensis	2	No	FACW	X 2 - Dominance To X 3 - Prevalence In		
8.			TAOW	4 - Morphologica		ovide supporting
9.					s or on a separa	
10.				Problematic Hydi	ophytic Vegetation	on <sup>1</sup> (Explain)
	125	Total Cover		<sup>1</sup> Indicators of hydric s		
Woody Vine Stratum (Plot size: 30'	_)			be present, unless dis	sturbed or proble	matic.
1				Hydrophytic		
2				Vegetation		
		=Total Cover		Present? Yes	XNo	
Remarks: (Include photo numbers here or on a sepa						-
Hydrophytic vegetation indicator present as Rapid T	,		I			

Wetland 065

SOIL Sampling Point: <u>aeh-200610-</u>

		o the dept				itor or c	confirm the absence	of indicators.)		
Depth	Matrix			x Featur		. 2		_		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		marks	
0-18	10YR 6/1	90	10YR 6/6	10	С	PL	Loamy/Clayey	Prominent red	ox conce	ntrations
								-		
								-		
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, N	/IS=Mas	ked Sand	d Grains		: PL=Pore Lining,		
Hydric Soil								s for Problematic	-	Soils <sup>3</sup> :
Histosol	` '		Sandy Gle		rix (S4)			t Prairie Redox (A	,	
	ipedon (A2)		Sandy Red					Manganese Masse	-	
Black His	` '		Stripped M	,	6)			Parent Material (F2	•	
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surfa		)
	Layers (A5)		Loamy Mu	-			Othe	r (Explain in Rema	rks)	
2 cm Mu	, ,	(4.44)	Loamy Gle	-						
	Below Dark Surface	(A11)	X Depleted N				31 12 1	61 1 1 1		
	rk Surface (A12)		Redox Dar		, ,			s of hydrophytic ve	-	
	ucky Mineral (S1)		Depleted D		, ,			nd hydrology must		ent,
	cky Peat or Peat (S3)	)	Redox Dep	ression	s (Fo)		unles	s disturbed or prob	леттанс.	
	_ayer (if observed):									
Type:			_							
Depth (in	iches):		_				Hydric Soil Present	t? Ye	s_X_	No
Remarks:										
							NRCS Field Indicators	s of Hydric Soils in	the Unite	d States,
	2018. (https://www.ni dicator present as lov	-	_			s 142p2_	_053171.pdi)			
,	a.oa.o. p. ooo ao .o.		.g raido dopiotos							
HYDROLO	GY									
_	drology Indicators: ators (minimum of or	o io roquir	ad: abook all that a	(vlaar			Sacanda	ry Indicators (minin	oum of tu	(o roquirod)
	Nater (A1)	ie is requir	eu, check all that a Water-Stai		ves (RQ)			ice Soil Cracks (B6		<u>o requireu)</u>
	ter Table (A2)		Aquatic Fa		, ,			age Patterns (B10	,	
X Saturation	` '		True Aqua	-	-			Season Water Tabl	,	
Water Ma			Hydrogen			)		fish Burrows (C8)	o (o_)	
	t Deposits (B2)		X Oxidized R					ration Visible on Ae	erial Imag	erv (C9)
x Drift Dep			Presence of	•		-		ed or Stressed Pla	-	
	t or Crust (B4)		Recent Iro		-			norphic Position (D		
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		X FAC-	Neutral Test (D5)		
Inundation	on Visible on Aerial In	nagery (B7)	Gauge or \	Nell Data	a (D9)					
Sparsely	Vegetated Concave	Surface (B	8) Other (Exp	lain in R	emarks)					
Field Observ	vations:									
Surface Water	er Present? Yes	s	No x	Depth (ii	nches):					
Water Table	Present? Yes	S X	No	Depth (ii	nches):	2				
Saturation P	resent? Yes	S X	No	Depth (ii	nches):	0	Wetland Hydrolog	gy Present? Ye	s_X_	No
(includes cap	illary fringe)									_
Describe Red	corded Data (stream	gauge, moi	nitoring well, aeria	l photos,	, previous	s inspec	ctions), if available:			
Remarks:	ory and accordant by	idrology in	dicators procest 4	no wetle	nd abuta	intorm!4	tant Stream OS2 +b-+	draine couth to are	NI⊔D	anad atraan-
	ary and secondary ny uth to Jonathan Cree						ttent Stream 062, that o	นเสแเร รับนเป เป สที่	ivino-ma)	ppeu siream
	is somation of		- Last to Maditingu		, 11477.					

US Army Corps of Engineers

## Upland 068

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transr	mission Line	City/Cou	ınty: Perry C	ounty	Sampling Da	ate: 06/10/2	2020
Applicant/Owner: AEP				State: OH	Sampling Po	oint: upl-aeh-20	00610-11
Investigator(s): AEH, SKM		Section, T	<u></u> Γownship, Ra	nge: S2. T17N. R1	6W		
Landform (hillside, terrace, etc.): flat			Local relief (c	concave, convex, noi	ne): none		
Slope (%): 0 Lat: 39.900289		_	-82.25545		Datum: NAD 8	33	
Soil Map Unit Name: Westmoreland silt loam, 25 to 3	5 percent slop			NWI cla	assification: N/A		
Are climatic / hydrologic conditions on the site typical			Yes x		, explain in Remark	(s )	
Are Vegetation, Soil, or Hydrology		•		Circumstances" prese			
Are Vegetation, Soil, or Hydrology	_			plain any answers in			
SUMMARY OF FINDINGS – Attach site m	='		•		,	features, e	etc.
Hydrophytic Vegetation Present? Yes N	No X	le the	e Sampled Aı	ro2			
	No X		n a Wetland?		No X		
	No X			·			
Remarks:							
Upland 068 is point out located southwest of Wetland	d 065 and wes	st of intermitte	ent Stream 06	2. Not a wetland poi	nt as no wetland cr	iteria met.	
<b>VEGETATION</b> – Use scientific names of pl	ants.						
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test			
Acer saccharum     Fagus grandifolia	40	Yes Yes	FACU FACU	Number of Domin Are OBL, FACW,	•	1 (	/A)
Fagus grandifolia     Ulmus rubra	10	No Yes	FAC		-	(	(A)
4. Carya ovata	5	No	FACU	Total Number of I Across All Strata:	Dominant Species	7 (	(B)
5.			TAGG		-		رم,
·	70	=Total Cover		Percent of Domin Are OBL, FACW,	•	14.3% (	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	)			•	-	,	` <i>`</i>
1.				Prevalence Inde	x worksheet:		
2.				Total % Cov	ero <u>f:</u> Mu	ıltiply by:	
3.				OBL species	0 x 1 =	0	
4.	·			FACW species	15 x 2 =	30	
5				FAC species	13 x 3 =	39	
	=	=Total Cover		FACU species	115 x 4 =	460	
Herb Stratum (Plot size: 5')				UPL species	0 x 5 =	0	
1. Galium aparine	15	Yes	FACU	Column Totals:	143 (A)		(B)
2. Parthenocissus quinquefolia	15	Yes	FACU	Prevalence Inc	lex = B/A =	3.70	
3. Persicaria pensylvanica	10	Yes	FACW				
4. Solidago canadensis	10	Yes	FACU	' ' '	etation Indicators		
5. Ageratina altissima		Yes	FACU		t for Hydrophytic V	egetation	
6. Acer saccharum	5	No No	FACU		e Test is >50%		
7. Agrimonia parviflora	5	No No	FACW		e Index is ≤3.0 <sup>1</sup>	Describbe aumo	
8. Asimina triloba	3	<u>No</u>	FAC		gical Adaptations <sup>1</sup> ( marks or on a sepa		oπing
9	. ——				Hydrophytic Vegeta		-1
10	73	=Total Cover					•
Woody Vine Stratum (Plot size: 30'	1	- Total 0010.			ric soil and wetland s disturbed or prob		iust
1.	<b>-</b> /				3 diotaibod of p. 52	ioriadic.	
2.				Hydrophytic Vegetation			
	· ——:	=Total Cover		_	res No	Χ	
Remarks: (Include photo numbers here or on a sepa							
No hydrophytic vegetation indicators present.	maic shoul,						ļ

Upland 068

**SOIL** Sampling Point: |-aeh-200610

		to the depth				tor or c	onfirm the absence	of indicators.)	
Depth	Matrix			x Featur					
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-18	10YR 3/3	100					Loamy/Clayey		
				·	·				
								-	
								-	
	oncentration, D=Depl	etion, RM=R	Reduced Matrix, N	/IS=Mas	ked Sand	Grains		: PL=Pore Lining, M=Mat	•
Hydric Soil					. (0.1)			rs for Problematic Hydric	c Soils":
— Histosol			Sandy Gle					st Prairie Redox (A16)	
	ipedon (A2)		Sandy Red					Manganese Masses (F12)	1
Black His	` '		Stripped M	•	5)			Parent Material (F21)	20)
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F2	.(2)
	Layers (A5)		Loamy Mu	-			Othe	r (Explain in Remarks)	
2 cm Mu	, ,	(444)	Loamy Gle	•	, ,				
	Below Dark Surface rk Surface (A12)	: (A11)	Depleted N Redox Dar				<sup>3</sup> Indicator	rs of hydrophytic vegetatio	en and
	ucky Mineral (S1)		Depleted D		` '			and hydrology must be pre	
	cky Peat or Peat (S3	)	Redox Der					ss disturbed or problemation	
		,	rtedox Bel	710331011	3 (1 0)	I	dilloc	o distarbed of problematic	<del></del>
	_ayer (if observed):								
Type: Depth (ir	ichos):		_				Hydric Soil Present	t? Yes	No X
. ,			_				nyunc 3011 Fresen		
Remarks:	m is revised from Mis	durant Dagiar	aal Cumplamant \	laraian C	O to incl	ıda tha	NDCC Field Indicator	a of Uvdria Caila in the Uni	itad Ctataa
	2018. (https://www.n	•						s of Hydric Soils in the Un	ileu States,
	l indicators present.		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			··	_000pu.,		
HYDROLO	GY								
Wetland Hy	drology Indicators:								
_	ators (minimum of o	ne is require	d; check all that a	apply)			Seconda	ry Indicators (minimum of	two required)
Surface	Nater (A1)		Water-Stai	ned Lea	ves (B9)		Surfa	ace Soil Cracks (B6)	
High Wa	ter Table (A2)		Aquatic Fa	una (B1	3)		Drain	nage Patterns (B10)	
Saturation	n (A3)		True Aqua	tic Plant	s (B14)		Dry-S	Season Water Table (C2)	
Water M	arks (B1)		Hydrogen	Sulfide (	Odor (C1)			fish Burrows (C8)	
	t Deposits (B2)		Oxidized R			•		ration Visible on Aerial Ima	
	osits (B3)		Presence of					ted or Stressed Plants (D1	1)
	t or Crust (B4)		Recent Iro			led Soils		morphic Position (D2)	
	osits (B5)	(5-1)	Thin Muck				FAC-	-Neutral Test (D5)	
	on Visible on Aerial Ir	0 , ,	Gauge or \						
	Vegetated Concave	Surface (B8	Other (Exp	lain in R	(emarks)		1		
Field Obser			Na v	Danth /					
Surface Wate					nches): _				
Water Table					nches): _		Wetland Undrala	my Dragont? Vac	No. V
Saturation P		s	No <u>x</u>	Depth (i	nches)		Wetland Hydrolog	gy Present? Yes	No X
(includes cap	corded Data (stream	dalide mon	itoring well seria	l nhotos	nrevious	inspec	tions) if available:		
Positive I/C	so. aca Data (stredili	gaage, mon	noming won, acid	. p. 10103	, provious	, mobec	sionoj, ii avaliabie.		
Remarks:									
	indicators present.								

<b>ite:</b> Crooksvill	e-North Newark 138 kV Transmission l	Line Rebuild Project	Date:	June 10, 2020
<b>Vetland:</b> w	-aeh-20200610-10		Rater:	AH, SM
1 1 ubtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2h 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) x 0.1 to <0.3 acres (0.04 to <0.12 <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts)		
13 12 Jubtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one  X WIDE. Buffers average 50m (1  MEDIUM. Buffers average 25m  NARROW. Buffers average 10  VERY NARROW. Buffers average 10  VERY NARROW. Buffers average 10  VERY LOW. 2nd growth or old  X LOW. Old field (>10 years), shi  MODERATELY HIGH. Resider	e, do not double check) 164ft) or more around wetle in to <50m (82 to <164ft) ar im to <25m (32ft to <82ft) age <10m (<32ft) around in improved the check & ave ignored the control of the control of the control interval of	and perimeter (7 round wetland perimeter (8 around wetland wetland perimeter (9 around wetland perimeter (9 around wetland perimeter (9 around 19	erimeter (4) perimeter (1) er (0) etc. (7) lage, new fallow field. (3)
31 18 ubtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  X Seasonal/Intermittent surface w Perennial surface water (lake of the seasonal of the seas	38  vater (3)  r stream) (5)  36  3.  2.	b. Connectivity.  100 ye Betwee x Part of x Part of x Part of x Regula Seaso Seaso Check all dis ditch dike lile weir	Score all that apply. ear floodplain (1) en stream/lake and other human use (1) f wetland/upland (e.g. forest), complex (1) f riparian or upland corridor (1)  dation/saturation. r double check & average) to permanently inundated/saturated (4) arly inundated/saturated (3) nally inundated (2) nally saturated in upper 30cm (12in) (1)  sturbances observed  point source (nonstormwater) filling/grading road bed/RR track dredging
43 12 ubtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or doc  X None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  X Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)	evelopment. (max 2 uble check and average.	C. Habitat alterar    None of Recovery   Recovery   Recent     Recovery   Recent   Recovery   Recent   Recent	tion. Score one or double check and average. or none apparent (9) ered (6) ering (3) t or no recovery (1)

Citor Overlandle No (LA)	laurant 100 le/ Transcription Line D. L.	Doto	luna 10, 2020
	lewark 138 kV Transmission Line Rebu		June 10, 2020
Wetland: w-aeh-2020	00610-10	Rater:	AH, SM
subtotal first page			
	5. Special Wetlands. (max 10 pts.)		
Subtotal Points <u>Check a</u>	Bog (10 pts) Fen (10 pts) Old Growth Forest (10 pts) Mature forested wetland (5 pts) Lake Erie coastal/tributary wetland-unro Lake Plain Sand Prairies (Oak Opening Relict Wet Prairies (10 pts) Known occurrence state/federal threate Significant migatory songbird/waterfowl Category 1 Wetland. See Question 1 of	tricted hydrolog gs) (10 pts) ened or endang I habitat or usa	y (5 pts)  Hered species (10)  ge (10 pts)
	6. Plant Communities, interspersion		
	Il present using 0 to 3 scale	Vegetatio	n Community Cover Scale
	Aquatic bed Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	Shrub Forest Mudflats	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
	Open water Other (list)	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
<u>6b. Hor</u> Select o	izontal (plan view) interspersion nly one	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
	High (5)  Moderately high (4)	Narrative	Description of Vegetation Quality
	Moderate (3) Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
<u>6c</u> . Cov	Low (1)  X None (0)  verage of invasive plants.	moderate	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 threatened or endangered spp
Refer to	Table 1 ORAM long form for list. deduct points for coverage  Extensive >75 % cover (-5)  Moderate 25-75% cover (-3)	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
	Sparse 5-25% cover (-1) Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	x Absent (1)	0	Absent <0.1 ha (0.2471 acres)
		1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
		2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
6d. Mic.	<u>rotopography</u>	3	High 4 ha (9.88 acres) or more
Score al	Il present using 0 to 3 scale  1 Vegetated hummocks/tussocks	Microtopo	ography Cover Scale
	1 Coarse woody debris >15 cm (6")	0	Absent
	0 Standing dead > 25 cm (10") dbh 0 Amphibian breeding pools	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 065

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing North



### Wetland 065

Date:

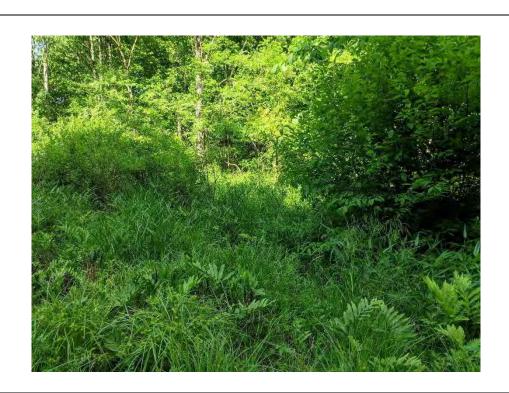
June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 065

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing South



### Wetland 065

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 065

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission	on Line	City/County	y: Perry Cou	unty	Sampling Date: 06/11/2020
Applicant/Owner: AEP				State: OH	Sampling Point: w-aeh-200611-01
Investigator(s): AEH, SKM		Section, Tov	wnship, Rang	ge: S2 T17N R16W	<u></u>
Landform (hillside, terrace, etc.): depressional		Lo	cal relief (cor	ncave, convex, none)	): none
Slope (%): 0 Lat: 39.92432		Long: -82	,		Datum: NAD 83
Soil Map Unit Name: HaD2 - Homewood-Westmoreland sil	lt loams, 15 t	_		ded NWI class	
Are climatic / hydrologic conditions on the site typical for thi		-	-	No (If no, ex	<del>.</del>
Are Vegetation, Soil, or Hydrologysigni	•				t? Yes x No
Are Vegetation , Soil , or Hydrology natur				ain any answers in R	
SUMMARY OF FINDINGS – Attach site map s				-	
Hydrophytic Vegetation Present? Yes X No		Is the S	Sampled Area	a	
Hydric Soil Present? Yes X No			a Wetland?	Yes <u>X</u>	No
Wetland Hydrology Present? Yes X No	<u> </u>				
Remarks:		-			
Sample point w-aeh-20200611-01 is point in to PEM Wetla 063. Wetland extends to northeast and southwest outside		ated in depre	ession area b	etween hills and on l	both banks of intermittent Stream
	•				
VEGETATION – Use scientific names of plants.		-in-nt	!!ton		
			Indicator Status	Dominance Test we	orksheet:
1	, <u>, , , , , , , , , , , , , , , , , , </u>			Number of Dominan	
2.				Are OBL, FACW, or	•
3.				Total Number of Dor	minant Species
4.		<u> </u>		Across All Strata:	(B)
5	<u>_</u>			Percent of Dominant	•
	=1 ot	tal Cover		Are OBL, FACW, or	FAC: 100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )	-			T	1 1 -4.
1. Salix nigra 2.	5	Yes	OBL	Prevalence Index w Total % Cover of	
3.			——   ·		100 x 1 = 100
4.	<del></del>	<del></del>			35 x 2 = 70
5.				FAC species	0 x 3 = 0
	5 =Tot	tal Cover		FACU species	0 x 4 = 0
Herb Stratum (Plot size: 5' )				UPL species	0 x 5 = 0
1. Acorus americanus	80	Yes	OBL	Column Totals: 1	135 (A) 170 (B)
2. Impatiens capensis	15		FACW	Prevalence Index	c = B/A = 1.26
3. <u>Dichanthelium clandestinum</u>	15		FACW		
4. Carex lurida	10	No	OBL	Hydrophytic Veget	
5. Juncus effusus 6. Phalaris arundinacea	5 5	No	OBL .	X 1 - Rapid Test fo	or Hydrophytic Vegetation
6. Phalaris arundinacea 7.		No	FACW .	X 2 - Dominance I	
8.			<u> </u>		muex is ≤ਤ.∪ al Adaptations¹ (Provide supporting
9.			<del></del>		arks or on a separate sheet)
10.					drophytic Vegetation <sup>1</sup> (Explain)
	130 =Tot	tal Cover			soil and wetland hydrology must
Woody Vine Stratum (Plot size: 30')					listurbed or problematic.
1				Hydrophytic	
2				Vegetation	
	=Tot	tal Cover		Present? Yes	s_X_ No
Remarks: (Include photo numbers here or on a separate	,		. = 1 011		
Hydrophytic vegetation indicator present as rapid test, dor	minant specie	es are OBL a	and FACW.		

US Army Corps of Engineers

SOIL Sampling Point: <u>aeh-200611-</u>

Profile Desc	ription: (Describe	to the dept				tor or c	confirm the absence of	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 4/1	75	10yr 6/8	25	С	pl	Loamy/Clayey	Prominent redox concentrations
1- 0.0							2, ,,	Di B. IIII MANA
Hydric Soil I	oncentration, D=Dep	letion, RM=	Reduced Matrix, I	MS=Mas	ked Sand	Grains		PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	ved Mat	riv (S1)			t Prairie Redox (A16)
	ipedon (A2)		Sandy Re	-				Manganese Masses (F12)
Black His			Stripped M					Parent Material (F21)
	n Sulfide (A4)		Dark Surfa	•	• /			Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu	, ,	eral (F1)			(Explain in Remarks)
2 cm Mu			Loamy Gle	-				,
Depleted	Below Dark Surface	e (A11)	X Depleted	-				
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicators	s of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)		Depleted [	Dark Sur	face (F7)		wetla	nd hydrology must be present,
5 cm Mu	cky Peat or Peat (S3	3)	Redox De	pression	s (F8)		unles	s disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:								
Depth (in	ches):		_				Hydric Soil Present	? Yes X No No
Remarks:								
								of Hydric Soils in the United States,
	2018. (https://www.n dicator present as lo			OCUME	N I S/nrcs	142p2_	_U53171.pat)	
Try and son in	diodioi procent do lo	W GIII GIII GI	iigii valae maaix					
LIVEROLO	CV							
HYDROLO								
_	drology Indicators:						0 1	
	ators (minimum of o	ne is requir			(DO)			y Indicators (minimum of two required)
	Nater (A1) ter Table (A2)		Water-Sta					ce Soil Cracks (B6)
x Saturatio	` '		Aquatic Fa True Aqua					age Patterns (B10) eason Water Table (C2)
Water Ma	` '		Hydrogen					ish Burrows (C8)
	t Deposits (B2)		x Oxidized F					ation Visible on Aerial Imagery (C9)
x Drift Dep	. , ,		Presence			-		ed or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro		-			norphic Position (D2)
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		X FAC-I	Neutral Test (D5)
Inundatio	on Visible on Aerial In	magery (B7	) Gauge or	Well Dat	a (D9)			
Sparsely	Vegetated Concave	Surface (B	8) Other (Exp	olain in R	temarks)			
Field Observ	vations:							
Surface Water	er Present? Ye	s	No <u>x</u>	Depth (i	nches):			
Water Table		s X	No	Depth (i	′ –	16		
Saturation Pr		s X	No	Depth (i	nches):	12	Wetland Hydrolog	yy Present? Yes X No No
(includes cap				11			41	
Describe Red	corded Data (stream	gauge, mo	nitoring well, aeria	ıı pnotos	, previous	inspec	ctions), if available:	
Remarks:								
	ary and secondary h	ydrology in	dicators present. \	Wetland :	abuts inte	rmitten	t Stream 063 that drain	is south to NHD-mapped stream that
	o Jonathan Creek th							

Project/Site: Crooksville-North Newark 138 kV Transm	ission Line	_ City/Cour	nty: Perry Co	ounty	Sampling Date:	06/11/2020
Applicant/Owner: AEP		<u></u>		State: OH	Sampling Point:	upl-aeh-200611-01
Investigator(s): AEH, SKM		Section, T	ownship, Ran	ge: S2. T17N. R16W		
Landform (hillside, terrace, etc.): flat			_ocal relief (co	oncave, convex, none):	none	
Slope (%): 0 Lat: 39.906		Long:8	82.260		Datum: NAD 83	
Soil Map Unit Name: Homewood-Westmoreland silt loa	ams, 15 to 25	percent (Hall	02)	NWI classi	fication: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time of	year?	Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrologys		-		ircumstances" present?		
Are Vegetation , Soil , or Hydrology r				olain any answers in Re		
SUMMARY OF FINDINGS – Attach site ma				-		atures, etc.
Hydrophytic Vegetation Present? Yes No	o X	Is the	Sampled Are	ea		
	$\frac{x}{x}$		n a Wetland?		No X	
	X					
Remarks: Sample point Upland 069 (upl-aeh-20200611-01) point point as no wetland criteria met.	nt out to Wetla	ınd 066, abou	ut 5 feet north	of wetland boundary at	higher elevation.	Not a wetland
VEGETATION – Use scientific names of pla						
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wo	rkohoot:	
1. (Plot size:)	% CUVEI	Species:	Slatus	Number of Dominant		
2.				Are OBL, FACW, or F	•	1 (A)
3.				Total Number of Dom		
4.				Across All Strata:	·	3 (B)
5				Percent of Dominant	•	
C. II. (Objects Objects (Districts AFI	, <del></del> ='	Total Cover		Are OBL, FACW, or F	AC:	33.3% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )			-	Prevalence Index wo		
1 2.				Total % Cover of		lv hv
3.					x 1 =	0
4.				FACW species 2		50
5.				FAC species 1	0 x 3 =	30
	=	Total Cover		FACU species 5	0 x 4 =	200
Herb Stratum (Plot size: 5' )				UPL species (	) x 5 =	0
Phalaris arundinacea	20	Yes	FACW	Column Totals: 8	``	280 (B)
2. Phleum pratense	20	Yes	FACU	Prevalence Index	= B/A = 3.2	29
3. Rosa multiflora	15	Yes	FACU		,	
4. Vitis vulpina	10	No	FAC	Hydrophytic Vegeta		
5. Taraxacum officinale		No No	FACU		Hydrophytic Vege	etation
6. Solidago canadensis	<u>5</u> 5	No No	FACW	2 - Dominance Te		
7. <u>Dichanthelium clandestinum</u> 8.	<u> </u>	No	FACW		dex is ≤3.0 Adaptations¹ (Pro	wide eunnorting
9.					s or on a separate	
10.					ophytic Vegetation	· ·
	85 =	Total Cover		<sup>1</sup> Indicators of hydric s		
Woody Vine Stratum (Plot size: 30')	,			be present, unless dis		
1				Hydrophytic		
2				Vegetation		
	_ <del></del> =	Total Cover		Present? Yes	No X	<u> </u>
Remarks: (Include photo numbers here or on a separ No hydrophytic vegetation indicators present as domir		 not > 50%, dc	ominant specie	es are FACW and FACU	J. and prevalence	index > 3.0
			·			

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Upland 069

SOIL Sampling Point: |-aeh-200611

	ription: (Describe t	o the depth				tor or c	onfirm the absen	ce of indicators	s.)		
Depth	Matrix			k Featur							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks		
0-18	10YR 3/2	100					Loamy/Clayey				
								_			
								_			
<sup>1</sup> Type: C=Co	ncentration, D=Depl	etion, RM=R	educed Matrix, N	1S=Mas	ked Sand	Grains		ion: PL=Pore L			
Hydric Soil I								tors for Proble	-	Soils <sup>3</sup> :	
Histosol (	•		Sandy Gle					oast Prairie Red			
	pedon (A2)		Sandy Rec	. ,				on-Manganese N	, ,		
Black His	` '		Stripped M	•	6)			ed Parent Mater			
	Sulfide (A4)		Dark Surfa					ery Shallow Dark	-	)	
	Layers (A5)		Loamy Mu	-			O	ther (Explain in I	Remarks)		
2 cm Mud	` '	(4.44)	Loamy Gle	-							
	Below Dark Surface	(A11)	Depleted N		•		31 11				
	rk Surface (A12)		Redox Dar		, ,			ators of hydrophy			
	ucky Mineral (S1)		Depleted D		` '			etland hydrology		ent,	
	cky Peat or Peat (S3)	)	Redox Dep	ression	s (F8)	-	ur	less disturbed o	or problematic.		
	.ayer (if observed):										
Type:			_								.,
Depth (in	cnes):		_				Hydric Soil Pres	ent?	Yes	No_	<u> </u>
Remarks:											
	m is revised from Mid 2018. (https://www.ni							tors of Hydric So	oils in the Unite	ed State	es,
	l indicators present a										
,							'				
HYDROLO	GY										
	Irology Indicators:										
_	ators (minimum of or	ne is required	d check all that a	nnly)			Secon	dary Indicators	(minimum of ty	vo reali	uired)
-	Vater (A1)	io io regairec	Water-Stai		ves (B9)			urface Soil Cracl		vo roqu	in ou j
	er Table (A2)		Aquatic Fa					rainage Patterns			
Saturatio	, ,		True Aqua	•	,			y-Season Wate			
Water Ma			Hydrogen :		. ,			ayfish Burrows			
	Deposits (B2)		Oxidized R					aturation Visible		ery (C	9)
Drift Depo			Presence of	•		-	` '	unted or Stresse	ed Plants (D1)		,
Algal Mat	or Crust (B4)		Recent Iron	n Reduc	tion in Til	led Soils	s (C6) G	eomorphic Posit	ion (D2)		
Iron Depo	osits (B5)		Thin Muck	Surface	(C7)		F	AC-Neutral Test	(D5)		
Inundatio	n Visible on Aerial In	nagery (B7)	Gauge or \	Vell Data	a (D9)						
Sparsely	Vegetated Concave	Surface (B8)	Other (Exp	lain in R	temarks)						
Field Observ	ations:										
Surface Water	er Present? Yes	·	No x	Depth (ii	nches):	0					
Water Table	Present? Yes	·	No x	Depth (ii	nches):						
Saturation Pr	esent? Yes	<u> </u>	No x	Depth (ii	nches):		Wetland Hydro	ology Present?	Yes	No	Χ
(includes cap	illary fringe)										
Describe Rec	corded Data (stream	gauge, moni	toring well, aeria	photos,	, previous	inspec	tions), if available:				
Remarks:	indicators present										
ino riyarology	indicators present										

	e-North Newark 138 kV Transmission I	Line Rebuild Project	Date:	June 11, 2020
Wetland: w-	aeh-20200611-01	-	Rater:	AH, SM
2 2 Subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha)  3 to <10 acres (1.2 to <4ha) (3  x 0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12  <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts)		
5 3 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one WIDE. Buffers average 50m (1 MEDIUM. Buffers average 25m  X NARROW. Buffers average 10 VERY NARROW. Buffers aver  2b. Intensity of surrounding land use (select of LOW. Old field (>10 years), should be a selected to the surrounding land use (select of LOW. Old field (>10 years), should be a selected to low. Intensity of surrounding land use (select of LOW. Old field (>10 years), should be a selected to low. In the surrounding land use (select of LOW. Old field (>10 years), should be a selected to low.	e, do not double check) 164ft) or more around wetle in to <50m (82 to <164ft) ar im to <25m (32ft to <82ft) rage <10m (<32ft) around in import of the check & ave alter forest, prairie, savannah rubland, young second grontial, fenced pasture, park,	and perimeter (7 round wetland per around wetland wetland wetland perimeter arage)  n, wildlife area, e owth forest. (5) conservation tills	erimeter (4) perimeter (1) er (0) etc. (7) age, new fallow field. (3)
27 22 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  X Seasonal/Intermittent surface w Perennial surface water (lake of the seasonal of the se	38 vater (3) r stream) (5) 36 3.	b. Connectivity.  100 ye x Betwee x Part of x Part of  d. Duration inunc (select one or Regula x Season Season	Score all that apply.  par floodplain (1)  en stream/lake and other human use (1)  fivetland/upland (e.g. forest), complex (1)  friparian or upland corridor (1)  dation/saturation.  r double check & average)  to permanently inundated/saturated (4)  arty inundated/saturated (3)  nally inundated (2)  nally saturated in upper 30cm (12in) (1)  sturbances observed  point source (nonstormwater)  filling/grading  road bed/RR track  dredging
40 13 Subtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dot  X None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  X Fair (3)  Poor to fair (2)  Poor (1)	pevelopment. (max 2 uble check and average.	20 pts.)  C. Habitat alterat  None of x Recovery Recent  ances observed	tion. Score one or double check and average. or none apparent (9) ered (6) ering (3) t or no recovery (1)

40 subtotal this page

Site: Crooksville-	North Newark	k 138 kV Transmission Line Rebuil	Date:	June 11, 2020
	eh-20200611-		Rater:	AH, SM
	5.1. Z0Z00011·	<u> </u>		7.1., 0.1
40 subtotal first pa				
40 0		pecial Wetlands. (max 10 pts.)		
Subtotal Points	Check all that a	Bog (10 pts)		
		Fen (10 pts)		
		Old Growth Forest (10 pts)		
		Mature forested wetland (5 pts)		
		Lake Erie coastal/tributary wetland-unre	stricted hydrol	ogy (10 pts)
		Lake Erie coastal/tributary wetland-restr	icted hydrolog	y (5 pts)
		Lake Plain Sand Prairies (Oak Openings	s) (10 pts)	
		Relict Wet Prairies (10 pts)		
		Known occurrence state/federal threater	_	
		Significant migatory songbird/waterfowl Category 1 Wetland. See Question 1 of		
		Category I Wetland. See Question I of	Qualitative K	ating. (-10 pts)
46 6	Metric 6. Pl	lant Communities, interspersion	. microtop	ography. (max 20 pts.)
Subtotal Points		egetation Communities	,	
	Score all preser	nt using 0 to 3 scale	Vegetatio	n Community Cover Scale
		Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	2	–		(
	0	-		Present and either comprises small part of wetland's vegetation and is
		Forest	1	of moderate quality, or comprises a significant part but is of low quality
		Mudflats Open water		
		Other (list)	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
	6b. Horizontal	(plan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation
	Select only one	-		and is of high quality
		High (5)	<b>M</b>	Described and the second of th
		Moderately high (4)	Narrative	Description of Vegetation Quality
		Moderate (3) Moderately low (2)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
	×	╡ * ` ` *		·
		None (0)  of invasive plants.	moderate	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 threatened or endangered spp
		1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or
	Add or deduct p	points for coverage	high	disturbance tolerant native spp absent or virtually absent, and high spp
		Extensive >75 % cover (-5)		diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		, II
		Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
	х	<b>╡ ′</b>	0	Absent <0.1 ha (0.2471 acres)
			1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopog		3	High 4 ha (9.88 acres) or more
		nt using 0 to 3 scale	Missel	a wan hu Cayan Saala
	1	- v		ography Cover Scale
	0		0	Absent
	1	3 ( 1 ,	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 and of highest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 066

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 066

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

60616110

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

Wetland 066

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing South



### Wetland 066

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

## Wetland 066

Date:

June 11, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmis	ssion Line	City/Cou	nty: Licking	County	Sampling Dat	te: 09/21/	/2020
Applicant/Owner: AEP				State: OH	Sampling Poi		200921-04
Investigator(s): AEH, WRL		Section, T	Township, Ra	inge: S2 T17N R16W	<u></u>		
Landform (hillside, terrace, etc.): saddle		-	Local relief (c	concave, convex, none):	concave		
Slope (%): 1 Lat: 39.9132			82.26485	, ,	Datum: NAD83		
Soil Map Unit Name: HaD2 - Homewood-Westmoreland	d silt loams,			roded NWI classi			
Are climatic / hydrologic conditions on the site typical for			Yes x	·		- 1	
, ,		•		Circumstances" present?		•	
Are Vegetation , Soil , or Hydrology si						INO	
Are Vegetation, Soil, or Hydrologyn. SUMMARY OF FINDINGS – Attach site ma				cplain any answers in Recations, transects	•	eatures,	etc.
Hydrophytic Vegetation Present? Yes X No		<del>-                                    </del>	Sampled A	· · · · · · · · · · · · · · · · · · ·	•		
	<u> </u>		n a Wetland?		No		
Wetland Hydrology Present? Yes X No			14 113	· · · · · · · · · · · · · · · · · · ·			
Remarks:							
Sample point w-aeh-20200921-04 point in to PEM Wet Stream 066 to east. Wetland open to east and west ou			between hills	. Two streams flow into	wetland, drains t	o intermitte	ent
VEGETATION – Use scientific names of plan	nts.						
·	Absolute	Dominant	Indicator				
`	% Cover	Species?	Status	Dominance Test wo	rksheet:		
1				Number of Dominant	•	0	(4)
2.				Are OBL, FACW, or F	_	2	(A)
3. 4.				Total Number of Dom Across All Strata:	inant Species	2	/B)
5.							(B)
5	-	=Total Cover		Percent of Dominant Are OBL, FACW, or F	•	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15' radius )		- 10tai 00vo.		Ale Obe, i Aovi, c		100.070	(7,5)
1. Salix interior	2	No	FACW	Prevalence Index w	orksheet:		
Rubus occidentalis	2	No	UPL	Total % Cover o		tiply by:	
3.					30 x 1 =	80	
4.					4 x 2 =	28	
5.				FAC species	0 x 3 =	0	
	4	=Total Cover		·	0 x 4 =	0	
Herb Stratum (Plot size: 5' radius )					2 x 5 =	10	
Persicaria sagittata	30	Yes	OBL	Column Totals: 9	96 (A)	118	(B)
2. Leersia oryzoides	30	Yes	OBL	Prevalence Index	= B/A =	1.23	
3. Typha latifolia	10	No	OBL				
4. Scirpus cyperinus	5	No	OBL	Hydrophytic Vegeta	tion Indicators:	'	
5. Symphyotrichum novae-angliae	5	No	FACW	x 1 - Rapid Test for		getation	
6. Impatiens capensis	5	No	FACW	X 2 - Dominance To			
7. Eupatorium perfoliatum	3	No	OBL	X 3 - Prevalence In			
8. Agrimonia parviflora	2	No	FACW	4 - Morphologica			porting
9. Mimulus ringens	2	No	OBL		ks or on a separa		
10				Problematic Hydi			
	92	=Total Cover		<sup>1</sup> Indicators of hydric s			nust
Woody Vine Stratum (Plot size: 30' radius )	•			be present, unless dis	sturbed or proble	matic.	
1	0			Hydrophytic			
2		<del>- : : : 0</del>		Vegetation	N. N.		
		=Total Cover		Present? Yes	<u>X</u> No_		
Remarks: (Include photo numbers here or on a separa	,	_	_				_
Hydrophytic vegetation indicator present as rapid test,	dominant sp	pecies are OB	·L				

SOIL Sampling Point: <u>ieh-20200921</u>

	cription: (Describe t	o the depth				tor or o	confirm the	absence o	of indicators.	)	
Depth	Matrix			x Feature							
(inches)	Color (moist)	<u></u> %	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Text	ure		Remarks	
0-2	10YR 4/1	90	10YR 4/4	10	С	pl	Loamy/0		Distinct	redox concen	trations
2-9	2.5Y 4/1	80	2.5Y 4/3	20	С	pl	Loamy/0		Prominen	t redox conce	entrations
9-18	10YR 3/1	90	7.5YR 3/4	10	С	pl	Loamy/0	Clayey	Prominen	t redox conce	entrations
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM=F	Reduced Matrix, I	MS=Masl	ked Sand	d Grains	3.	<sup>2</sup> Location:	: PL=Pore Lir	ning, M=Matri	<b>K</b> .
Hydric Soil	Indicators:								s for Problen		
Histosol	(A1)		Sandy Gle	eyed Matr	rix (S4)			? Coas	t Prairie Redo	x (A16)	
Histic Ep	pipedon (A2)		Sandy Re	dox (S5)				Iron-N	Manganese M	asses (F12)	
Black Hi			Stripped N	/latrix (S6	5)			Red F	Parent Materia	al (F21)	
Hydroge	n Sulfide (A4)		Dark Surfa	ace (S7)				Very	Shallow Dark	Surface (F22	)
Stratified	Layers (A5)		Loamy Mu	icky Mine	eral (F1)			Other	r (Explain in R	emarks)	
2 cm Mu	ıck (A10)		Loamy Gle	eyed Mat	rix (F2)					•	
Depleted	d Below Dark Surface	(A11)	X Depleted I	-							
	ark Surface (A12)	` ,	Redox Da	,	•			<sup>3</sup> Indicator	s of hydrophy	tic vegetation	and
Sandy M	lucky Mineral (S1)		Depleted I	Dark Surf	ace (F7)				nd hydrology	•	
5 cm Mu	icky Peat or Peat (S3)	1	X Redox De		, ,				s disturbed or		
Restrictive	Layer (if observed):										
Type:	, , , , , , , , , , , , , , , , , , , ,										
Depth (ii	nches):		_				Hydric So	il Present	?	Yes X	No
Remarks:	,		_				-				
	m is revised from Mic	west Region	nal Sunnlement \	Version 2	0 to incl	ude the	NRCS Field	Indicators	of Hydric Soi	ls in the I Inite	d States
	2018. (https://www.ni								, or 11, and 00.	10 111 1110 011110	ou outios,
	ndicators present as lo								depression s	ubject to pond	ding
	·			·			·				
HYDROLO	OGY										
Wetland Hy	drology Indicators:										
_	cators (minimum of or	e is require	d: check all that	apply)				Secondar	y Indicators (r	minimum of tv	o required)
	Water (A1)		Water-Sta		ves (B9)				ce Soil Crack		. o . o qu o u /
	iter Table (A2)		Aquatic Fa						age Patterns		
x Saturation	` ,		True Aqua						Season Water		
	larks (B1)		Hydrogen			١			ish Burrows (		
	nt Deposits (B2)		x Oxidized F				nots (C3)		ation Visible o	,	ery (C9)
	posits (B3)		Presence			-	.5515 (55)		ed or Stresse	-	(00)
· - ·	at or Crust (B4)		Recent Iro		,	,	ls (C6)		norphic Position		
	oosits (B5)		Thin Muck				.5 (55)		Neutral Test (	. ,	
	on Visible on Aerial In	nagery (B7)	Gauge or		-						
	Vegetated Concave				` '						
Field Obser			<u> </u>								
Surface Wat			No x	Depth (ir	nches).	0					
Water Table		· —		Depth (ir	_						
Saturation P		x x	No X	Depth (ir	_		Wetland	Hydrolog	gy Present?	Yes X	No
	pillary fringe)			Dopui (II	.5.103).		Tretianu	,	77 i 1636iit:		
<u> </u>	corded Data (stream	nauge mon	itoring well aeria	al nhotos	previous	s insner	tions) if ava	ilable <sup>.</sup>			
Pegoline I/e	Solucu Data (Streatti	gaago, mon	itoring well, aelle	ai pilotos,	provious	, iiishec	Juonoj, ii ava	nabic.			
Remarks:											
	nary and secondary h	drology ind	icators present.	Wetland o	drains by	intermi	ttent Stream	067 to no	rth to Valley R	un that drains	s to west to
Jonathan Cr	eek that drains east to	Muskingur	n River, a TNW.	Primary	sources	of hydro	ology are eph	emeral St	ream 066 and	intermittent S	Stream 067

Project/Site: Crooksville-North Newark 138 kV Transm	ission Line	City/Co	unty: Perry C	ounty	Sampling Da	ate: 09/2	1/2020
Applicant/Owner: AEP				State: OH	Sampling Po	oint: upl-aeh-	20200921-04
Investigator(s): AEH, WRL		Section,	Township, Rai	nge: S2 T17N R16	SW		
Landform (hillside, terrace, etc.): hillslope			Local relief (c	oncave, convex, noi	ne): convex		
Slope (%): 5 Lat: 39.90717		Long:	-82.2636		Datum: NAD8	3	
Soil Map Unit Name: CkC2 - Cincinnati silt loam, 8 to 1	5 percent slo			NWI cla			
Are climatic / hydrologic conditions on the site typical for			Yes x		, explain in Remark	(c.)	
		-		Circumstances" pres			
Are Vegetation, Soil, or Hydrologys						NO	_
Are Vegetation, Soil, or Hydrology				plain any answers in	•	faaturaa	oto
SUMMARY OF FINDINGS – Attach site ma	ap snowin	ig sampin	ng point io	cations, transec	cis, important	ieatures,	, etc.
	<u> </u>	Is th	e Sampled Ar	rea			
<u> </u>	<u> X</u>	with	in a Wetland?	Yes_	No X		
Wetland Hydrology Present? Yes No	<u> X</u>						
Remarks:	1007 -14	451	. <b> </b>		and a sink as books	9 1 1	
Sample point w-aeh-20200921-04 point out to Wetlan criteria not met.	d 067, about	15 northwe	st of wetland b	oundary. Not a wetta	and point as nydric	soll and ny	arology
VEGETATION – Use scientific names of pla	nts						
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30' radius )	% Cover	Species?	Status	Dominance Test	worksheet:		
1				Number of Domin	•		
2.				Are OBL, FACW,	or FAC:	2	_(A)
3.				Total Number of [	•	7	(D)
5.				Across All Strata:	-	7	_(B)
J		Total Cover	<del></del>	Percent of Domin Are OBL, FACW,	•	28.6%	(Δ/R)
Sapling/Shrub Stratum (Plot size: 15' radius )		- Total Govel		AIC OBE, I AOW,		20.070	_ (///////
1				Prevalence Inde	x worksheet:		
2.				Total % Cov		Itiply by:	
3.				OBL species	0 x 1 =	0	
4.				FACW species	15 x 2 =	30	_
5				FAC species	15 x 3 =	45	_
		=Total Cover	•	FACU species		220	_
Herb Stratum (Plot size: 5' radius )	45		F4.0	UPL species	5 x 5 =	25	<b>-</b> (D)
1. Setaria pumila	15	Yes	FAC FACW	Column Totals: Prevalence Inc	90 (A)	320 3.56	_(B)
Onoclea sensibilis     Achillea millefolium	<u>15</u> 15	Yes Yes	FACU	Prevalence inc	iex – b/A –	3.30	-
4. Solidago altissima	10	Yes	FACU	Hydronhytic Vec	getation Indicators		
5. Schizachyrium scoparium	10	Yes	FACU		t for Hydrophytic V		
6. Ambrosia artemisiifolia	10	Yes	FACU		e Test is >50%	-9	
7. Cirsium arvense	10	Yes	FACU	3 - Prevalenc	e Index is ≤3.0 <sup>1</sup>		
8. Tridens flavus	5	No	UPL		gical Adaptations <sup>1</sup> (		
9				data in Rer	marks or on a sepa	rate sheet)	
10				Problematic H	Hydrophytic Vegeta	tion¹ (Expla	ain)
	90 =	=Total Cover	•	,	ric soil and wetland	, ,,	must
Woody Vine Stratum (Plot size: 30')	)			be present, unles	s disturbed or prob	lematic.	
1	0			Hydrophytic			
		Total Cover	. ——	Vegetation Present?	res No	X	
Pomorko: (Ingludo photo pumboro baro or or		7 Star Gover		110061101			
Remarks: (Include photo numbers here or on a separation No hydrophytic vegetation indicators present as domin	,	not > 50% o	dominant speci	es are FACW_FAC	and FACU, and pro	evalence in	dex >
3.0	133110	55.5,			pi		

Upland 070

SOIL Sampling Point: aeh-2020092

		to the dept				tor or c	confirm the absence of	of indicators.)	·
Depth	Matrix	- 0/		x Featu		. 2	<b>-</b> .	5 .	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-3	2.5Y 4/3	100					Loamy/Clayey		
3-16	2.5Y 5/4	100					Loamy/Clayey		
			_						
1Type: C=C	concentration, D=Dep	etion RM-	Reduced Matrix M	 M-2Nac	ked Sand		<sup>2</sup> l ocation	: PL=Pore Lining, M=Matrix	,
	Indicators:	Ction, rtivi–	reduced Matrix, I	vio-ivias	ncu can	Oranis		s for Problematic Hydric S	•
Histosol			Sandy Gle	ved Mat	rix (S4)			t Prairie Redox (A16)	
	pipedon (A2)		Sandy Red					Manganese Masses (F12)	
	istic (A3)		Stripped M					Parent Material (F21)	
— Hydroge	en Sulfide (A4)		Dark Surfa	ce (S7)	,			Shallow Dark Surface (F22)	)
Stratifie	d Layers (A5)		Loamy Mu	cky Min	eral (F1)		Other	(Explain in Remarks)	
2 cm Mu	uck (A10)		Loamy Gle	eyed Ma	trix (F2)				
Deplete	d Below Dark Surface	(A11)	Depleted N	Matrix (F	3)				
Thick Da	ark Surface (A12)		Redox Da	rk Surfa	ce (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation	and
	Mucky Mineral (S1)		Depleted [	Dark Sur	face (F7)		wetla	nd hydrology must be prese	ent,
5 cm Mu	ucky Peat or Peat (S3	)	Redox De	pression	s (F8)		unles	s disturbed or problematic.	
Restrictive	Layer (if observed):								
Type:									
Depth (i	nches):						Hydric Soil Present	? Yes	No X
Remarks:						-			
		•	• • •					of Hydric Soils in the Unite	d States,
	2018. (https://www.n	rcs.usda.gc	ov/Internet/FSE_D	OCUME	NTS/nrcs	s142p2_	_053171.pdf)		
No nyaric sa	oil indicators present.								
HYDROLO	nev .								
_	drology Indicators:						0 1		
	cators (minimum of o	ne is requir			(DO)			y Indicators (minimum of tw	o required)
	Water (A1)		Water-Stal		` '			ce Soil Cracks (B6)	
Saturati	ater Table (A2)		True Aqua	`	,			age Patterns (B10)	
	larks (B1)		Hydrogen					Season Water Table (C2) ish Burrows (C8)	
	nt Deposits (B2)		Oxidized F		, ,			ration Visible on Aerial Imag	ery (CQ)
	posits (B3)		Presence	•		•	` ′	ed or Stressed Plants (D1)	cry (OO)
	at or Crust (B4)		Recent Iro					norphic Position (D2)	
	posits (B5)		Thin Muck					Neutral Test (D5)	
	on Visible on Aerial Ir	nagery (B7			-				
	y Vegetated Concave	0 ) (	, <u> </u>						
Field Obser		•	<u> </u>		,				
	ter Present? Ye	S	No x	Depth (i	nches):	0			
Water Table		s			nches):				
Saturation F					nches):		Wetland Hydrolog	gy Present? Yes	No X
(includes ca	pillary fringe)				· <del>-</del>				
	ecorded Data (stream	gauge, mo	nitoring well, aeria	l photos	, previous	sinspec	ctions), if available:		
Remarks:									
No hydrolog	y indicators present.								

Wetland 067

Site: Cr	ooksville- Ne	wark Project	Rater(s): Audre	y Hanne	r		Date:	9/21/2020
<u> </u>		•	• • • • • • • • • • • • • • • • • • • •	-	Field Id:		•	
	2 2	Metric 1. We	etland Area (size).		w-aeh-2020092	21-04		
max 6 pts	subtotal	Select one size cla	ass and assign score.					
		>50 acres (>20.2ha			0.80	acres		
		25 to <50 acres (10 10 to <25 acres (4 t	.1 to <20.2ha) (5 pts)		extends outside survey	area		
		3 to <10 acres (1.2						
		x 0.3 to <3 acres (0.1	, ,					
			.04 to <0.12ha) (1 pt)					
	10 12	<0.1 acres (0.04ha) Motrio 2 LIn		urraundi	ng land usa			
	10 12	■	land buffers and su		_			
max 14 pts.	subtotal		age buffer width. Select only age 50m (164ft) or more aroun		~	check.		
			verage 25m to <50m (82 to <1					
			average 10m to <25m (32ft to					
		VERY NARROW. E	Buffers average <10m (<32ft) a	round wetland	d perimeter (0)			
			rrounding land use. Select or		_			
			rowth or older forest, prairie, sa					
			) years), shrubland, young seco GH. Residential, fenced pasture	-		field (3)		
			strial, open pasture, row croppir		•	noid. (o)		
	16.0 28.0	Metric 3. Hy	drology.					
max 30 pts.	subtotal		ter. Score all that apply.		3b. Connectivity. Score	e all that appl	ly.	
		High pH groundwat			100 year floodplain (1)	• • • • • • • • • • • • • • • • • • • •	•	
		Other groundwater	(3)	х				
		x Precipitation (1) x Seasonal/Intermitte	nt surface water (3)	X	Part of wetland/upland (e Part of riparian or upland	,,	omplex (1)	
			ater (lake or stream) (5)	<u> </u>	<u> </u>	` '	Score one or dbl check	
			er depth. Select one.		Semi- to permanently in		ated (4)	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to	27 6in) (2)		Regularly inundated/satu Seasonally inundated (2			
		x <0.4m (<15.7in) (1)		х	Seasonally saturated in	•	12in) (1)	
			to natural hydrologic regime.	Score one o				
		None or none appa x Recovered (7)	rent (12)	х	Check all disturbances		source (nonstormwater)	
		Recovering (3)		^	tile		grading	
		Recent or no recov	ery (1)		dike		ed/RR track	
					weir	x dredgi		
	40 44	1 Matria 4 Ha	h:4-4 Al44:	 	_stormwater input	Other	i	
	13 41	■	bitat Alteration and	-				
max 20 pts.	subtotal	None or none appa	urbance. Score one or double	e cneck and a	average.			
		x Recovered (3)	( )					
		Recovering (2)	(4)					
		Recent or no recove	ery (1) pment. Select only one and a	ssian score.				
		Excellent (7)	pinona coloct omy one and a					
		Very good (6)						
		Good (5)  x Moderately good (4)	)					
		Fair (3)	,					
		Poor to fair (2)						
		Poor (1) 4c. Habitat alterati	on. Score one or double che	ck and avera	ae.			
		None or none appa			_Check all disturbances o			
		x Recovered (6)		Х			sapling removal	
		Recovering (3) Recent or no recovering	erv (1)	x	grazing clearcutting		ceous/aquatic bed remov entation	aı
		Tresent of no recov	O.y (1)	X	selective cutting	dredgi		
				X	woody debris removal	x farmin	ıg	
	44	1			toxic pollutants	nutrie	nt enrichment	
	41	4						
	subtotal this	page ORAM v. 5.0 Field	Form Quantitative Rating					

w-aeh-20200921-04 oram.xlsm | test\_Field

Site: Crooksville- Newark Project Rate	(s): Audrey Hanne	ſ	Date:	9/21/2020
	-	Field Id:	-	
41		w-aeh-20200921-04		
subtotal this page				
0 41 Metric 5. Special We	lands.			
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 wetlan	-unrestricted hydrology (10)			
Lake Erie coastal/tributary wetlan				
Lake Plain Sand Prairies (Oak O	enings) (10)			
Relict Wet Praires (10) Known occurrence state/federal t	reatened or endangered spec	ries (10)		
Significant migratory songbird/wa		sies (10)		
Category 1 Wetland. See Question				
8 49 Metric 6. Plant comm	unities, interspers	ion, microtopography.		
max 20pts. subtotal 6a. Wetland Vegetation 0	ommunities.	Vegetation Community Cov	er Scale	
Score all present using 0 to 3 sca		Absent or comprises <0.1ha (0.2471 ac		
Aquatic bed	1	Present and either comprises small par		
2 Emergent 0 Shrub		vegetation and is of moderate quality, or significant part but is of low quality	or comprises a	
Forest	2	Present and either comprises significant	nt part of wetland's 2	
Mudflats		vegetation and is of moderate quality o		
Open water		part and is of high quality		
Other6b. horizontal (plan view) Inters		Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
Select only one.	Jersion.	vegetation and is of high quality		
High (5)		Narrative Description of Vegetation	Quality	
Moderately high(4)		Low spp diversity and/or predominance	e of nonnative or low	
Moderate (3)  Moderately low (2)		disturbance tolerant native species  Native spp are dominant component of	the vegetation mod	
x Low (1)		although nonnative and/or disturbance	•	
None (0)		can also be present, and species diver-		
6c. Coverage of invasive plants		moderately high, but generallyw/o pres	ence of rare	
Table 1 ORAM long form for list.	dd	threatened or endangered spp to	nannativa ann high	
or deduct points for coverage  Extensive >75% cover (-5)		A predominance of native species, with and/or disturbance tolerant native spp		
Moderate 25-75% cover (-3)		absent, and high spp diversity and ofte	,	
Sparse 5-25% cover (-1)		the presence of rare, threatened, or en	dangered spp	
Nearly absent <5% cover (0)		Mudflet and Onen Mater Class Oveli	4	
x Absent (1) 6d. Microtopography.	0	Mudflat and Open Water Class Quali Absent <0.1ha (0.247 acres)	ту	
Score all present using 0 to 3 sca		Low 0.1 to <1ha (0.247 to 2.47 acres)	-	
1 Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	i)	
2 Coarse woody debris >15cm (6in	3	High 4ha (9.88 acres) or more		
1 Standing dead >25cm (10in) dbh 0 Amphibian breeding pools		Microtopography Cover Scale		
7. Amphilibian breeding pools	0	Absent		
	1	Present very small amounts or if more	common	
		of marginal quality	of high out	
Category 2	2	Present in moderate amounts, but not of quality or in small amounts of highest q		
49 GRAND TOTAL(max 100 pts)	3	Present in moderate or greater amount		
TO CITAL TO TAL (III AX TOO PIS)	3			
		and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 067

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 067

Date:

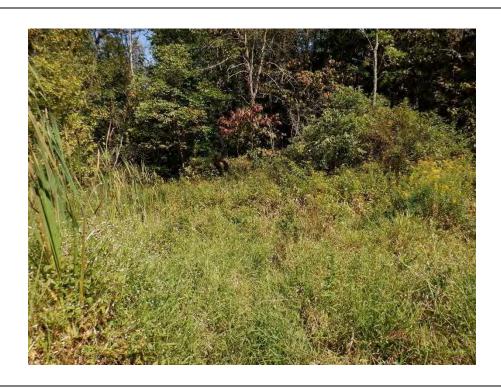
September 21, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 067

Date:

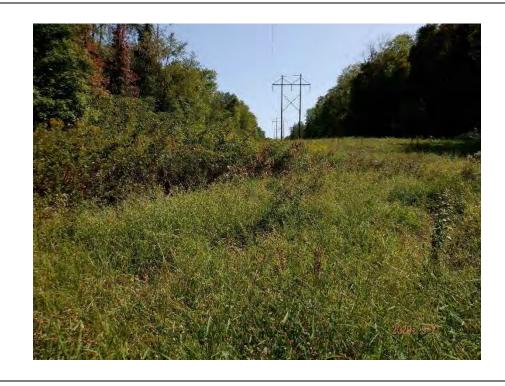
September 21, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 067

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 067

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmi	ission Line	City/Co	unty: Licking	County	Sampling Date: 09/21/2020
Applicant/Owner: AEP				State: OH	Sampling Point: w-aeh-20200921-05
Investigator(s): AEH, WRL		Section,	Township, Ra	nge: S14 T18N R16W	
Landform (hillside, terrace, etc.): swale			Local relief (c	concave, convex, none):	concave
Slope (%): 2 Lat: 39.92184			-82.26246	· · · · · · · · · · · · · · · · · · ·	Datum: NAD83
Soil Map Unit Name: MnD2 - Mentor silt loam, 12 to 18	nercent slo			NWI classif	
Are climatic / hydrologic conditions on the site typical fo					
		-	Yes x		
Are Vegetation , Soil , or Hydrology s					Yes x No
Are Vegetation, Soil, or Hydrologyn			•	plain any answers in Rer	,
SUMMARY OF FINDINGS – Attach site ma	ıp showin	ıg samplir	ng point lo	cations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes X No	)	Is the	e Sampled Aı	rea	
	)	withi	in a Wetland?	? Yes <u>X</u>	No
Wetland Hydrology Present? Yes X No	,				
Remarks:					
Sample point w-aeh-20200921-05 point in to PEM We east.	tland 068. W	/etland within	າ swale in past	ture, fully delineated. Dra	ins to ephemeral Stream 069 to
	4				
VEGETATION – Use scientific names of plan	nts. Absolute	Dominant	Indicator	т	
<u>Tree Stratum</u> (Plot size: 30' radius )	% Cover	Species?	Indicator Status	Dominance Test wor	ksheet:
1.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	~F		Number of Dominant	
2.				Are OBL, FACW, or F	•
3.				Total Number of Domi	inant Species
4.				Across All Strata:	2 (B)
5.				Percent of Dominant S	
_		=Total Cover		Are OBL, FACW, or F	AC: 100.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' radius )					
1. Rosa multiflora	2	No	FACU	Prevalence Index wo	
2.				Total % Cover of	
3				OBL species 74	
4.				FACW species 4	
5	2	=Total Cover		FAC species 0 FACU species 2	
Herb Stratum (Plot size: 5' radius )		=10lai Cove		UPL species 0	
1. Persicaria sagittata	30	Yes	OBL	Column Totals: 11	
Leersia oryzoides	30	Yes	OBL	Prevalence Index :	
Impatiens capensis	15	No	FACW	1 Toyalonoo mac.	- D/A - 1.30
Cyperus strigosus	10	No	FACW	Hydrophytic Vegetat	ion Indicators:
5. Pilea pumila	10	No	FACW	1	Hydrophytic Vegetation
6. Carex lurida	5	No	OBL	X 2 - Dominance Te	
7. Persicaria hydropiper	5	No	OBL	X 3 - Prevalence Inc	
8. Symphyotrichum novae-angliae	3	No	FACW	4 - Morphological	Adaptations <sup>1</sup> (Provide supporting
9. Echinochloa crus-galli	3	No	FACW	data in Remark	s or on a separate sheet)
10. Eutrochium maculatum	2	No	OBL	Problematic Hydro	ophytic Vegetation <sup>1</sup> (Explain)
	115	=Total Cover	. —	<sup>1</sup> Indicators of hydric so	oil and wetland hydrology must
Woody Vine Stratum (Plot size: 30' radius )				be present, unless dis	turbed or problematic.
1	0			Hydrophytic	
2				Vegetation	
		=Total Cover		Present? Yes_	X No
Remarks: (Include photo numbers here or on a separa					
Hydrophytic vegetation indicator present as rapid test,	dominant sp	pecies are OF	BL		

Sampling Point: v-aeh-20200921-0

### **VEGETATION Continued** – Use scientific names of plants.

Tree Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata:
6. 7.				<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				at bloast height (BBH), regardless of height.
9.				Sapling/Shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10.				
11				<b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
12 13				plants less than 3.28 ft tall.
		=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
Sapling/Shrub Stratum				height.
6.				
7.				
8				
9.				
10				
11				
12				
13				
	2	=Total Cover		
Herb Stratum	0	NI.	OBL	
11. <u>Scirpus atrovirens</u>	2	<u>No</u>	OBL	
12.				
13.				
14				
15				
16 17				
18.				
19.				
20.				
21.				
22.				
	115	=Total Cover		
Woody Vine Stratum				
3.				
4				
5				
6				
7				
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)			

SOIL Sampling Point: <u>ieh-20200921</u>

Profile Des	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redo	x Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-2	10YR 4/1	90	10YR 4/4	10	С	pl	Loamy/Claye	y Distinct redox concentrations		
2-9	2.5Y 4/1	85	2.5Y 4/3	15	C	pl	Loamy/Claye	y Prominent redox concentrations		
9-18	10Y 3/1	90	2.5Y 5/3	10	С	pl	Loamy/Claye	y Prominent redox concentrations		
1 <sub>T. / 2</sub> C = C		Lation DM-	- Dadwaad Matrix I			Cusins	21.22	etien. DI - Dens Lining M-Metric		
Hydric Soil	Concentration, D=Dep	ietion, Rivi=	Reduced Matrix, i	vi5=iviasi	ked Sand	Grains		ation: PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils <sup>3</sup> :		
Histosol			Sandy Gle	ved Mat	rix (S4)			Coast Prairie Redox (A16)		
	pipedon (A2)		Sandy Red	-	IX (O4)			ron-Manganese Masses (F12)		
	istic (A3)		Stripped M	, ,	3)			Red Parent Material (F21)		
	en Sulfide (A4)		Dark Surfa	•	,,			Very Shallow Dark Surface (F22)		
	d Layers (A5)		Loamy Mu		eral (F1)			Other (Explain in Remarks)		
	uck (A10)		Loamy Gle	-			<del></del> `	other (Explain in Nemarks)		
	d Below Dark Surface	- (Δ11)	X Depleted N	-						
	ark Surface (A12)	, (7,11)	Redox Dai	•			<sup>3</sup> Indi	cators of hydrophytic vegetation and		
	Mucky Mineral (S1)	Depleted [		` '			wetland hydrology must be present,			
	ucky Peat or Peat (S3	Redox De		` '			unless disturbed or problematic.			
_	, ,	,			(. 0)			F		
	Layer (if observed):									
Type: Depth (i	nchos):		_		Hydric Soil Pre	osont? Yos Y No				
	<u> </u>		<u> </u>				Hyunc Jon Fre	esent? Yes X No No		
Remarks:										
								cators of Hydric Soils in the United States,		
	2018. (https://www.r ndicators present as I							in nore linings		
Tiyuno son n	nulcators prosent as i	OW Chiloma	/iligir value matrix	With Giot	illot and <sub>l</sub>	JIOHIII	III IEUOX ICAIUICO	in pore inings.		
	201									
HYDROLO	JGY									
Wetland Hy	drology Indicators:									
	cators (minimum of o	ne is requir	ed; check all that	apply)			<u>Seco</u>	ondary Indicators (minimum of two required)		
	Water (A1)		Water-Sta					Surface Soil Cracks (B6)		
High Wa	ater Table (A2)		Aquatic Fa					Drainage Patterns (B10)		
x Saturation	, ,		True Aqua					Dry-Season Water Table (C2)		
Water M	larks (B1)		Hydrogen	Sulfide C	Odor (C1)	)		Crayfish Burrows (C8)		
	nt Deposits (B2)		x Oxidized F			-	` ′ —	Saturation Visible on Aerial Imagery (C9)		
	posits (B3)		Presence			-		Stunted or Stressed Plants (D1)		
	at or Crust (B4)		Recent Iro			led Soils	` '	Geomorphic Position (D2)		
	posits (B5)		Thin Muck		-		<u>X</u> I	FAC-Neutral Test (D5)		
	on Visible on Aerial I	• • •	· — ·		` '					
Sparsely	y Vegetated Concave	: Surface (E	38) Other (Exp	olain in R	emarks)					
Field Obser	rvations:									
Surface Wat	ter Present? Ye	s	No x	Depth (ir	nches):_	0				
Water Table Present? Yes x No Depth (inches): 17										
Saturation F	Present? Ye	s X	No	Depth (ir	nches): _	9	Wetland Hyd	rology Present? Yes X No		
(includes ca	pillary fringe)									
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	ıl photos,	previous	s inspec	tions), if available	:		
Remarks:				A/-4ll	da e la collecti					
								east to intermittent stream 068 north to ource of hydrology is precipitation and		
-	on of surface runoff.	oonaman c	Accidental arange of	dot to me	Johnnyann	141701, 0	a Tivv. I filliary 5	ourse of flydrology to prodipitation and		

Project/Site: Crooksville-North Newark 138 kV Transmi	issio <u>n Line</u>	City/Cou	ınty: Perry C	County	Sampling Date:	09/21/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-aeh-20200921-05
Investigator(s): AEH, WRL		Section, 7	 Гownship, Ra	ange: S14 T18N R16	SW	
Landform (hillside, terrace, etc.): hillslope			Local relief (c	concave, convex, none	e): convex	
Slope (%): 20 Lat: 39.92018		_	-82.27014		Datum: NAD83	
Soil Map Unit Name: MnD2 - Mentor silt loam, 12 to 18	percent slo			NWI clas	ssification: N/A	
Are climatic / hydrologic conditions on the site typical fo		-	Yes x		explain in Remarks.)	
Are Vegetation , Soil , or Hydrology s		•		Circumstances" preser		
Are Vegetation, Soil, or Hydrologyn				· κplain any answers in F		
SUMMARY OF FINDINGS – Attach site ma			•		ŕ	atures, etc.
Hydrophytic Vegetation Present? Yes X No	<u>-</u>	Is the	e Sampled A	roa	<u> </u>	
	<del>X</del>		n a Wetland?		No X_	
	<u> </u>					
Remarks: Sample point w-aeh-20200921-05 point out to Wetland	d 068, about	t 15' north of v	vetland bound	dary. Not a wetland po	oint as hydric soil and	l hydrology
criteria not met.						
VEGETATION – Use scientific names of plan		Dominant	Indiantor	<u> </u>		
<u>Tree Stratum</u> (Plot size: 30' radius )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test v	worksheet:	
1. Ailanthus altissima	20	Yes	FACU	Number of Domina		
2.				Are OBL, FACW, o	•	4 (A)
3.				Total Number of Do	ominant Species	
4.				Across All Strata:		7 (B)
5		T-1-1 Caves		Percent of Dominal	•	== 40/ /A/D)
Sanling/Shruh Stratum /Dlot size: 15' radius )		=Total Cover		Are OBL, FACW, o	r FAC:	57.1% (A/B)
Sapling/Shrub Stratum (Plot size: 15' radius )  1. Ailanthus altissima	5	Yes	FACU	Prevalence Index	workshoot	
Alianthus alussima     Acer rubrum	5	Yes	FACU	Total % Cover		ılv bv
3. Rosa multiflora	2	No	FACU	OBL species	0 x1=	0
4.				FACW species	40 x 2 =	80
5.				FAC species	20 x 3 =	60
	12	=Total Cover		FACU species	47 x 4 =	188
Herb Stratum (Plot size: 5' radius )				UPL species	0 x 5 =	0
1. Pilea pumila	20	Yes	FACW	Column Totals:	107 (A)	328 (B)
2. Persicaria maculosa	20	Yes	FACW	Prevalence Inde	ex = B/A = 3.0	)7
3. Ambrosia artemisiifolia	15	Yes	FACU			
4. Setaria pumila	15	Yes	FAC		etation Indicators:	
5. Symphyotrichum pilosum	5	No	FACU		for Hydrophytic Vege	etation
6.				X 2 - Dominance		
7				3 - Prevalence		
8.					cal Adaptations <sup>1</sup> (Pro arks or on a separate	
9						
10	75	=Total Cover			ydrophytic Vegetation	
Woody Vine Stratum (Plot size: 30' )		-10tal 00vo.			c soil and wetland hy disturbed or problem	
1.	0			·	distance of promising	atio.
2.				Hydrophytic Vegetation		
		=Total Cover		_	es X No	
Remarks: (Include photo numbers here or on a separa	ate sheet.)					=
Hydrophytic vegetation indicator present as dominance		ე%, dominant	species are I	FACW, FAC and FAC	U	
-			•			

SOIL Sampling Point: aeh-2020092

	ription: (Describe t	o the depth				tor or c	onfirm the absence	of indicators.)
Depth	Matrix		Redo	x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-3	2.5Y 4/3	100					Loamy/Clayey	
3-15	2.5Y 5/4	100					Loamy/Clayey	
	oncentration, D=Depl	etion, RM=F	Reduced Matrix, N	/IS=Mas	ked Sand	Grains		n: PL=Pore Lining, M=Matrix.
Hydric Soil								ors for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle Sandy Red	-	ix (S4)			st Prairie Redox (A16)
	Histic Epipedon (A2) Black Histic (A3)							-Manganese Masses (F12)
	` '		Stripped M	•	5)			Parent Material (F21)
	n Sulfide (A4)		Dark Surfa		1 (54)			/ Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu	-			Otne	er (Explain in Remarks)
2 cm Mu	ск (АТО)   Below Dark Surface	(111)	Loamy Gle					
	rk Surface (A12)	(A11)	Depleted N		-		3Indicate	ors of hydrophytic vegetation and
	ucky Mineral (S1)		Depleted [		` '			
	Redox De		` ,			and hydrology must be present, ss disturbed or problematic.		
_	cky Peat or Peat (S3	)	Nedox De	JI 65510113	5 (1-0)	-	unie	as disturbed of problematic.
	_ayer (if observed):							
Type:	ahaa\.		_				Hudria Cail Dragge	No. No. V
Depth (in			<del>_</del>				Hydric Soil Preser	nt? Yes No X
Remarks:	i	houset Danie		/i O	0 45 15 51	۔ حالہ ۔ ام،	NDCC Field Indicate	on af I hadrin Caila in the I haite d Ctatas
	m is revised from Mic 2018. (https://www.ni	-						rs of Hydric Soils in the United States,
	Il indicators present.	oo.uouu.go	V/III.COTTICUT CL_D	OOOME	1110/11100	1+2p2_	_00017 1.pui)	
-								
HYDROLO	GY							
_	drology Indicators: cators (minimum of or	ne ie require	nd: check all that	annly)			Seconda	ary Indicators (minimum of two required)
	Nater (A1)	ie is require	Water-Sta		ves (RQ)			ace Soil Cracks (B6)
	ter Table (A2)		Aquatic Fa					nage Patterns (B10)
Saturatio	, ,		True Aqua	•	•			Season Water Table (C2)
Water Ma			Hydrogen					rish Burrows (C8)
	t Deposits (B2)		Oxidized F					uration Visible on Aerial Imagery (C9)
	osits (B3)		Presence	•		-	` ' —	nted or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro	n Reduc	tion in Til	led Soils		morphic Position (D2)
Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		FAC	C-Neutral Test (D5)
Inundation	on Visible on Aerial In	nagery (B7)	Gauge or '	Well Data	a (D9)			
Sparsely	Vegetated Concave	Surface (B8	3) Other (Exp	lain in R	emarks)			
Field Observ	vations:							
Surface Water	er Present? Yes	3	No x	Depth (ii	nches):	0		
Water Table Present? Yes No x Depth (inches):								
Saturation P	resent? Yes	S	No x	Depth (ii	nches):		Wetland Hydrolo	ogy Present? Yes No X
(includes cap	oillary fringe)							
Describe Red	corded Data (stream	gauge, mon	itoring well, aeria	l photos,	previous	inspec	tions), if available:	
_								
Remarks:	, indicators							
ivo nyarology	/ indicators present.							

Site: Cro	oksville- Ne	ewark Project	Rater(s): Audrey	Hanner	Date:	9/21/2020
		-		Field Id:	•	
	0 (	Metric 1. Wet	land Area (size).	w-aeh-20200921-0	5	
max 6 pts	subtotal	Select one size clas	-			
		>50 acres (>20.2ha) 25 to <50 acres (10.1	' '	0.04 acre	es	
		10 to <25 acres (4 to	, , , ,			
		3 to <10 acres (1.2 to				
		0.3 to <3 acres (0.12 0.1 to <0.3 acres (0.0				
		x <0.1 acres (0.04ha) (	0 pts)			
	4 4	4 Metric 2. Upla	and buffers and sur	rounding land use.		
max 14 pts.	subtotal	2a. Calculate averag	e buffer width. Select only or	ne and assign score. Do not double chec	k.	
			ge 50m (164ft) or more around	wetland perimeter (7) ft) around wetland perimeter (4)		
			ŭ (	i2ft) around wetland perimeter (4)		
			ffers average <10m (<32ft) aro			
				or double check and average.		
			wth or older forest, prairie, sava rears), shrubland, young secon			
				park, conservation tillage, new fallow field. (	(3)	
		x HIGH. Urban, industr	al, open pasture, row cropping	mining, construction. (1)		
	7.0 11.0	Metric 3. Hyd	rology.			
max 30 pts.	subtotal	3a. Sources of Wate	r. Score all that apply.	3b. Connectivity. Score all th	nat apply.	
		High pH groundwater Other groundwater (3		100 year floodplain (1)  x Between stream/lake and othe	or human use (1)	
		x Precipitation (1)	,	Part of wetland/upland (e.g. for	, ,	
		Seasonal/Intermittent	( )	Part of riparian or upland corric	* *	h l-
		3c. Maximum water	ter (lake or stream) (5) depth. Select one.	3d. Duration inundation/satu Semi- to permanently inundate		neck.
		>0.7 (27.6in) (3)		Regularly inundated/saturated		
		0.4 to 0.7m (15.7 to 2 x <0.4m (<15.7in) (1)	7.6in) (2)	Seasonally inundated (2)  x Seasonally saturated in upper	30cm (12in) (1)	
			natural hydrologic regime. S	core one or double check and average.	, , , ,	
		None or none appare Recovered (7)	nt (12)	Check all disturbances obse	prved point source (nonstormwa	ter)
		x Recovering (3)		tile	filling/grading	101)
		Recent or no recover	y (1)	dike	road bed/RR track	
				weir x stormwater input	dredging Other:	
	8 19	Metric 4. Hab	itat Alteration and	Development.	_	
max 20 pts.	subtotal	<b>-</b> 4	bance. Score one or double o	•		
		None or none appare	nt (4)			
		Recovered (3) x Recovering (2)				
		Recent or no recover				
		4b. Habitat developi Excellent (7)	nent. Select only one and ass	sign score.		
		Very good (6)				
		Good (5)  Moderately good (4)				
		x Fair (3)				
		Poor to fair (2)				
		Poor (1) 4c. Habitat alteration	n. Score one or double check	and average.		
		None or none appare		Check all disturbances observ		
		Recovered (6) x Recovering (3)		mowing x grazing	shrub/sapling removal herbaceous/aquatic bed re	emoval
		Recent or no recover	y (1)	x clearcutting x	sedimentation	
				x selective cutting x woody debris removal x	dredging farming	
		<u>_</u>		x woody debris removal x toxic pollutants	nutrient enrichment	
	19	9				
	subtotal thi	spage ORAM v. 5.0 Field Fo	orm Quantitative Rating			

w-aeh-20200921-05 oram.xlsm | test\_Field

Site: Crooksville- Newark Project Rater(s): A	udrey Hanner	Date:	9/21/2020
	Field Id:	<u>.</u>	
19	w-aeh-2020092 <sup>2</sup>	1-05	
subtotal this page			
0 19 Metric 5. Special Wetlands	•		
max 10 pts. subtotal Check all that apply and score a	is indicated.		
Bog (10)			
Fen (10)			
Old growth forest (10)  Mature forested wetland (5)			
Lake Erie coastal/tributary wetland-unrestric	eted hydrology (10)		
Lake Erie coastal/tributary wetland-restricte			
Lake Plain Sand Prairies (Oak Openings) (	0)		
Relict Wet Praires (10)	or endangered energies (40)		
Known occurrence state/federal threatened Significant migratory songbird/water fowl ha			
Category 1 Wetland. See Question 5 Qualit			
2 21 Metric 6. Plant communitie	s, interspersion, microtopog	raphy.	
max 20pts. subtotal 6a. Wetland Vegetation Commu	nities. Vegetation Comm	unity Cover Scale	
Score all present using 0 to 3 scale.	0 Absent or comprises <0.1	Tha (0.2471 acres) contiguous are	a
Aquatic bed	1 Present and either compr		
1 Emergent Shrub	vegetation and is of mode significant part but is of lo	erate quality, or comprises a	
Forest		ises significant part of wetland's 2	)
Mudflats		erate quality or comprises a small	<del>-</del>
Open water	part and is of high quality		
Other		ignificant part, or more, of wetland	l's 3
6b. horizontal (plan view) Interspersion. Select only one.	vegetation and is of high	quanty	
High (5)	Narrative Description of	F Vegetation Quality	
Moderately high(4)	Low spp diversity and/or p	predominance of nonnative or low	1
Moderate (3)	disturbance tolerant nativ		J
Moderately low (2) Low (1)		component of the vegetation, moder disturbance tolerant native spp	1
x None (0)		species diversity moderate to	
6c. Coverage of invasive plants. Refer	moderately high, but gene	erallyw/o presence of rare	
Table 1 ORAM long form for list. Add	threatened or endangered		
or deduct points for coverage  Extensive >75% cover (-5)		e species, with nonnative spp high nt native spp absent or virtually	
Moderate 25-75% cover (-3)		ersity and often, but not always,	
Sparse 5-25% cover (-1)		atened, or endangered spp	
Nearly absent <5% cover (0)		-	
x Absent (1)	Mudflat and Open Water 0   Absent <0.1ha (0.247 acr		
<b>6d. Microtopography.</b> Score all present using 0 to 3 scale.	0 Absent <0.1na (0.247 acr 1 Low 0.1 to <1ha (0.247 to	,	
0 Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47		
0 Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) or i		
0 Standing dead >25cm (10in) dbh	Mit	Casla	
0 Amphibian breeding pools	Microtopography Cover 0 Absent	Scale	
	Present very small amount	nts or if more common	
	of marginal quality		
Catagoriu 4	2 Present in moderate amo		
Category 1	quality or in small amount		
21 GRAND TOTAL(max 100 pts)	3 Present in moderate or gr	reater amounts	
	and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 068

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 068

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 068

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 1

Facing South



#### Wetland 068

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 068

Date:

September 21, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission	on Line	City/Coun	ity: Licking Co	ounty	Sampling Dat	te: <u>06/10/</u>	/2020
Applicant/Owner: AEP				State: OH	Sampling Poi	nt: w-aeh-2	200610-06
Investigator(s): AEH, SKM	{5	Section, To	wnship, Range	e: S15. T18N. R1	16W		
Landform (hillside, terrace, etc.): depressional		L	ocal relief (con	ncave, convex, non	e): none		
Slope (%): 0 Lat: 39.92432		Long: <u>-8</u>	2.273448		Datum: NAD 83	3	
Soil Map Unit Name: Melvin silt loam. 0 to 3 percent slope:	s, frequently f	ilooded (M	e)	NWI cla	ssification: N/A		
Are climatic / hydrologic conditions on the site typical for the	nis time of yea	ar?	Yes x	No (If no,	explain in Remarks	s.)	_
Are Vegetation, Soil, or Hydrologysign	ificantly distur	rbed? Ar	e "Normal Circ	cumstances" prese	nt? Yes x	No	<u>.</u>
Are Vegetation, Soil, or Hydrologynatu	urally problema	atic? (If	needed, expla	ain any answers in	Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing s	ampling	point loca	tions, transec	ts, important f	eatures,	etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled Area	<u> </u>			
Hydric Soil Present? Yes X No	<u>—</u>	within	a Wetland?	Yes_>	<u> No</u>		
Wetland Hydrology Present? Yes X No							
Remarks:			··········· 071 (\/al	"D\ Motland	the do to courthwe	-4 systeide	- <del>4</del>
Point in to PEM Wetland 069, located in 100-year floodpla area to NWI-mapped PFO1A wetland.	ain abutting pe	erenniai oi	ream U/ I (Vaii	ley Kun). vvetianu	extends to southwe	∌St OUISIU <del>e</del> :	stuay
VEGETATION – Use scientific names of plants	<del></del>						
A	Absolute Do		Indicator				$\overline{}$
· · — · · — · — · — — · — — · — — · — — · — — · — — · — — · — · — · — · — · — · — ·	% Cover Sp	pecies?		Dominance Test			
1	———	<del></del>		Number of Domina Are OBL, FACW, of	•	2	(A)
3.				Total Number of D	_		(~)
4.				Across All Strata:	Offilliant Openios	2	(B)
5.				Percent of Domina	ant Species That		`
	=Tota	tal Cover		Are OBL, FACW, o	•	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15' )			F				
1.			[ '	Prevalence Index		Color by	
2. 3.			<del></del>  -	Total % Cove OBL species	$\frac{\text{er of:}}{0} \frac{\text{Mult}}{\text{x 1 =}}$	tiply by: 0	
		<del></del> -		FACW species	92 x 2 =	184	
5.	<del></del>			FAC species	10 x 3 =	30	
	=Tot	tal Cover		FACU species	0 x 4 =	0	
Herb Stratum (Plot size: 5' )				UPL species	0 x 5 =	0	
Valerianella umbilicata	30	Yes	FACW	Column Totals:		214	(B)
2. Dichanthelium clandestinum		Yes	FACW	Prevalence Inde	ex = B/A =	2.10	
3. Carex annectens	15	No	FACW				
4. Poa pratensis	10	No			etation Indicators:		
5. Phalaris arundinacea		No	FACW		t for Hydrophytic Ve	getation	
Agrostis gigantea     Onoclea sensibilis	2	No No	FACW -	X 2 - Dominance X 3 - Prevalence			
8.		INO	FACVV		e index is ≤3.0 ical Adaptations¹ (P	Provide supi	norting
9.					narks or on a separ		JUI
10.					ydrophytic Vegetat		in)
	102 =Tota	tal Cover		<sup>1</sup> Indicators of hydri	ic soil and wetland	hydrology n	
Woody Vine Stratum (Plot size: 30')					disturbed or proble		
1.				Hydrophytic			
2		<del></del> -		Vegetation	·· Na		
<del>-</del>		tal Cover		Present? Y	es X No		
Remarks: (Include photo numbers here or on a separate Hydrophytic vegetation indicator present as dominance te	,						
Tydrophytic vegetation indicator present as dominance to	3St ~ 50 /0.						

SOIL Sampling Point: <u>aeh-200610-</u>

		to the dept		tor or c	confirm the absence of	of indicators.)					
Depth	Matrix		Redo	x Featur							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
8-0	10YR 4/2	100					Loamy/Clayey				
8-18	10YR 4/2	97	10YR 6/6	3	С	PL	Loamy/Clayey	Prominent redox concentrations			
			_								
1			Deduced Metric N	40. 14			21 +	Di Dana Linia a M. Matria			
Hydric Soil	oncentration, D=Dep	ietion, Rivi=	Reduced Matrix, i	vi5=ivias	ked Sand	Grains		: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils <sup>3</sup> :			
Histosol			Sandy Gle	ved Mati	riy (S4)			t Prairie Redox (A16)			
	ipedon (A2)		Sandy Red	•				Manganese Masses (F12)			
Black His			Stripped M	. ,				Parent Material (F21)			
	n Sulfide (A4)		Dark Surfa	•	• /			Shallow Dark Surface (F22)			
	Layers (A5)		Loamy Mu		eral (F1)			(Explain in Remarks)			
2 cm Mu			Loamy Gle	-				,			
Depleted	Below Dark Surface	e (A11)	X Depleted N								
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation and			
Sandy M	ucky Mineral (S1)		Depleted [	Dark Sur	face (F7)		wetla	nd hydrology must be present,			
5 cm Mu	cky Peat or Peat (S3	Redox De	pression	s (F8)		unless disturbed or problematic.					
Restrictive I	estrictive Layer (if observed):										
Type:											
Depth (ir	nches):		_				Hydric Soil Present	? Yes X No			
Remarks:											
								of Hydric Soils in the United States,			
	2018. (https://www.n	-	_								
Hydric soil in	dicator present as lo	w chroma/n	ligh value deplete	d matrix	with requ	ired red	lox concentrations.				
HYDROLO	GY										
_	drology Indicators:										
	cators (minimum of o	ne is requir						ry Indicators (minimum of two required)			
	Water (A1)		Water-Sta					ce Soil Cracks (B6)			
~	ter Table (A2)		Aquatic Fa	•	•			age Patterns (B10)			
Saturation			True Aqua					Season Water Table (C2)			
	arks (B1)		Hydrogen					ish Burrows (C8)			
X Drift Dep	t Deposits (B2)		X Oxidized F Presence			-		ration Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)			
	t or Crust (B4)		Recent Iro					norphic Position (D2)			
	osits (B5)		Thin Muck			ica con	· -	Neutral Test (D5)			
	on Visible on Aerial Ir	magery (B7					<u> </u>	rtedudi Teet (20)			
	Vegetated Concave				, ,						
Field Obser	vations:		, <u> </u>				T				
Surface Water		s	No x	Depth (ii	nches):						
Water Table Present? Yes No x Depth (inches):											
Saturation Present? Yes No x Depth (inches):							Wetland Hydrolog	gy Present? Yes X No			
(includes car	oillary fringe)				· –						
	corded Data (stream	gauge, mo	nitoring well, aeria	l photos,	, previous	inspec	tions), if available:				
Remarks:	ary and cocondary h	vdrology in	dicators present	Orimon, o	ouroo o	f hydral	ony are overhead flow	from perennial stream and			
	,	, ,,	•	•		•	0,	that flows east to Muskingum River, a			
TNW.	, , ,			,				<b>5 4</b>			

## Upland 072

Project/Site: Crooksville-North Newark 138 kV Trans	mission Line	City/Cou	inty: Licking	County	Sampling Date:	06/10/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	upl-aeh-200610-06
Investigator(s): AEH, SKM		Section, T	ownship, Ra	inge: S15. T18N. R16\	N	
Landform (hillside, terrace, etc.): flat			Local relief (c	concave, convex, none):	none	
Slope (%): 0 Lat: 39.923898			82.273387		Datum: NAD 83	
Soil Map Unit Name: Melvin silt loam. 0 to 3 percent	slopes, frequer			NWI class		
Are climatic / hydrologic conditions on the site typical			Yes x	No (If no, ex	•	
Are Vegetation , Soil , or Hydrology		•		Circumstances" present?		lo
Are Vegetation , Soil , or Hydrology	_			cplain any answers in Re		
SUMMARY OF FINDINGS – Attach site n	_			-	•	tures, etc.
Hydrophytic Vegetation Present? Yes	No X	ls the	Sampled A	ro3	<u> </u>	
	No X		n a Wetland?		No X	
	No X		16 110			
Remarks:						
Upland 072 is point out located south of Wetland 06 wetland point as no wetland criteria met.	9. Location is v	within mapped	ป 100-year flo	oodplain of Valley Run in	NWI mapped wetl	and. Not a
<b>VEGETATION</b> – Use scientific names of pl	lants.					
- 2011	Absolute	Dominant	Indicator	<b>T</b>		
Tree Stratum (Plot size: 30' )	% Cover 15	Species?	Status	Dominance Test wo		
Acer negundo     Ulmus rubra	10	Yes Yes	FAC FAC	Number of Dominant Are OBL, FACW, or I	•	3 (A)
3. Prunus serotina	10	Yes	FACU			3 (八)
4. Juglans nigra	5	No	FACU	Total Number of Don Across All Strata:	ninant Species	7 (B)
5. Celtis occidentalis	5	No	FAC	Percent of Dominant	Species That	(=)
		=Total Cover		Are OBL, FACW, or I	•	2.9% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	)					·
Prunus serotina	15	Yes	FACU	Prevalence Index w	orksheet:	
2. Juglans nigra	10	Yes	FACU	Total % Cover of	f: Multip	y by:
3.				· —	0 x 1 =	0
4				· -	10 x 2 =	20
5				· -	30 x 3 =	180
, , , , , , , , , , , , , , , , , , ,	25=	=Total Cover		· —	55 x 4 =	220
Herb Stratum (Plot size: 5' )	00	V- s	<b>5</b> 40		0 x 5 =	0 400 (B)
1. Lobelia spicata	20	Yes	FACU		25 (A)	420 (B)
Solidago canadensis     Verbesina alternifolia	15	Yes No	FACU FACW	Prevalence Index	= B/A = 3.3	10
Verbesina aiternirolla     Acer negundo	10	No	FACV	Hydrophytic Vegeta	tion Indicators:	
		110	FAC		r Hydrophytic Vege	tation
				2 - Dominance T		itation
7.				3 - Prevalence Ir		
8.					l Adaptations¹ (Pro	vide supporting
9.					ks or on a separate	
10				Problematic Hyd	rophytic Vegetatior	<sup>1</sup> (Explain)
	55 =	=Total Cover		<sup>1</sup> Indicators of hydric s	soil and wetland hy	drology must
Woody Vine Stratum (Plot size: 30'	_)			be present, unless di		
1				Hydrophytic		
2.				Vegetation		
	=	=Total Cover		Present? Yes	No_X	
Remarks: (Include photo numbers here or on a sep-	arate sheet.)					
No hydrophytic vegetation indicators present.						

Upland 072

SOIL Sampling Point: |-aeh-200610

	cription: (Describe	to the deptl				tor or c	onfirm the absence	e of indicators	s.)		
Depth	Matrix			x Featu							
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks		
0-2	10YR 2/2	100					Loamy/Clayey				
2-18	10YR 4/2	100					Loamy/Clayey				
								-			
								_			
								-			
<u> </u>											
	oncentration, D=Dep	letion, RM=F	Reduced Matrix, N	∕IS=Mas	ked San	d Grains		on: PL=Pore L			
Hydric Soil			0		hair (0.4)			ors for Proble	-	Soils":	
Histosol			Sandy Gle	-				ast Prairie Red			
	nipedon (A2)	Sandy Red					n-Manganese I				
Black His	suc (A3) n Sulfide (A4)	Stripped M Dark Surfa	•	,			d Parent Mater ry Shallow Dar	, ,	2)		
	I Layers (A5)		Loamy Mu					ner (Explain in l	•	-)	
2 cm Mu			Loamy Gle	-			0"	iei (Expiaiii iii	ixemarks)		
l ——	d Below Dark Surface	(Δ11)	Depleted N	-							
	ark Surface (A12)	, (, (, , , )	Redox Dar	,	,		<sup>3</sup> Indicat	tors of hydroph	vtic vegetation	and	
l ——	lucky Mineral (S1)	Depleted D		, ,							
I ——	cky Peat or Peat (S3	Redox Dep		` '		wetland hydrology must be present, unless disturbed or problematic.					
	Layer (if observed):	,	<u> </u>		( - /						
Type:	Layer (ii observeu).										
Depth (inches):							Hydric Soil Prese	ent?	Yes	No	X
Remarks:			<u> </u>								
Version 8.2,	m is revised from Mic 2018. (https://www.n il indicators present,	rcs.usda.go	v/Internet/FSE_D	OCUME	NTS/nrc	s142p2_	053171.pdf)	ors of Hydric S	oils in the Unit	ed State	es,
HYDROLC	)GY										
Wetland Hy	drology Indicators:										
_	cators (minimum of o	ne is require	ed: check all that a	(vlage			Second	dary Indicators	(minimum of t	wo reau	uired)
-	Water (A1)		Water-Stai		aves (B9)			rface Soil Crac			
High Wa	ter Table (A2)		Aquatic Fa	iuna (B1	3)			ainage Patterns			
Saturation	on (A3)		True Aqua	tic Plant	ts (B14)		Dry	/-Season Wate	r Table (C2)		
Water M	arks (B1)		Hydrogen	Sulfide (	Odor (C1	)		ayfish Burrows			
Sedimer	t Deposits (B2)		Oxidized R	Rhizosph	neres on I	iving R	oots (C3)Sat	turation Visible	on Aerial Imag	gery (C	9)
Drift Dep	oosits (B3)		Presence of	of Redu	ced Iron (	C4)	Stu	inted or Stress	ed Plants (D1)	1	
Algal Ma	t or Crust (B4)		Recent Iro	n Reduc	ction in Ti	lled Soil	` '	omorphic Posit	, ,		
	osits (B5)		Thin Muck	Surface	e (C7)		FA	C-Neutral Test	(D5)		
	on Visible on Aerial Ir	0 , ,			, ,						
Sparsely	Vegetated Concave	Surface (B	B)Other (Exp	olain in F	Remarks)		_				
Field Obser											
Surface Wat					inches):						
Water Table Present? Yes No x Depth (inches):							l				
Saturation P		s	No <u>x</u>	Depth (i	inches):		Wetland Hydrol	ogy Present?	Yes	No_	<u> </u>
(includes cap			itaniaaall aania	1 1 4			tions) if available.				
Describe Re	corded Data (stream	gauge, mor	nitoring well, aeria	i pnotos	s, previou	s inspec	tions), if available:				
Remarks:											
	y indicators present.										

Site: Crooksville-	Newark Project	Rater(s): Audrey l	Hanner	Date:	6/10/2020
	,	1 //	Field Id:	•	
1	1 Metric 1. We	etland Area (size).	w-aeh-20200610-0	16	
max 6 pts subto	Select one size cla	uss and assign score. ) (6 pts) .1 to <20.2ha) (5 pts) o <10.1ha) (4 pts) to <4ha) (3 pts) 2 to <1.2ha) (2pts) .04 to <0.12ha) (1 pt)	ac	res	
6	<ul><li>&lt;0.1 acres (0.04ha)</li><li>7 Metric 2. Up</li></ul>	(0 pts) land buffers and surr	ounding land use.		
max 14 pts. subto	A 2a. Calculate avera WIDE. Buffers avera MEDIUM. Buffers a X NARROW. Buffers VERY NARROW.  3 b. Intensity of su X VERY LOW. 2nd gr LOW. Old field (>10 X MODERATELY HIG	age buffer width. Select only one age 50m (164ft) or more around we verage 25m to <50m (82 to <164ft) average 10m to <25m (32ft to <82ft) afters average <10m (<32ft) around use. Select one or owth or older forest, prairie, savand years), shrubland, young second	and assign score. Do not double check thand perimeter (7) around wetland perimeter (4) than around wetland perimeter (1) double check and average.  Than a wildlife area, etc. (7) growth forest. (5)  Trk, conservation tillage, new fallow field.		
16.0 2	23.0 Metric 3. Hy		,,		
max 30 pts. subto	High pH groundwate Other groundwater X Precipitation (1) X Seasonal/Intermitte Perennial surface w 3c. Maximum wate >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to X <0.4m (<15.7in) (1)	(3)  Int surface water (3) Int surface water (3) Int surface water (3) Int surface water (3) Int surface water (5) Int surface water (3) Int surface water	dike	ter human use (1) porest), complex (1) ridor (1) uration. Score one or dbl cl ted/saturated (4) d (3) r 30cm (12in) (1) erved point source (nonstormwa	
7.5	Metric 4. Ha	bitat Alteration and D	evelopment.		
max 20 pts. subto	None or none appa  x Recovered (3) x Recovering (2) Recent or no recove 4b. Habitat develor Excellent (7) Very good (6) Good (5) Moderately good (4 Fair (3) x Poor to fair (2) Poor (1)	ery (1) pment. Select only one and assignment.  on. Score one or double check a rent (9)	nd average.  Check all disturbances obser  x mowing grazing x clearcutting x selective cutting	shrub/sapling removal herbaceous/aquatic bed resedimentation dredging	emoval
[ ī	30.5		x woody debris removal x toxic pollutants	farming nutrient enrichment	

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: Crooksville- Newark Project Rater(s): Audrey Hanne	er	Date:	6/10/2020
<u> </u>	Field Id:	-	•
30.5	w-aeh-20200610-06		
	=0=00010 00		
0 30.5 Metric 5. Special Wetlands.			
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-unrestricted hydrology (10)			
Lake Erie coastal/tributary wetland-restricted hydrology (5)			
Lake Plain Sand Prairies (Oak Openings) (10)			
Relict Wet Praires (10)  Known occurrence state/federal threatened or endangered spe	cies (10)		
Significant migratory songbird/water fowl habitat or usage (10)	cies (10)		
Category 1 Wetland. See Question 5 Qualitative Rating (-10)			
0 30.5 Metric 6. Plant communities, interspers	sion, microtopography.		
max 20pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation Community Co	ver Scale	
•	Absent or comprises <0.1ha (0.2471		
	Present and either comprises small p		
1 Emergent	vegetation and is of moderate quality	or comprises a	
Shrub	significant part but is of low quality		
Forest 2 Mudflats	Present and either comprises signific		
Open water	vegetation and is of moderate quality part and is of high quality	or comprises a small	
·	Present and comprises significant pa	t, or more, of wetland's 3	
6b. horizontal (plan view) Interspersion.	vegetation and is of high quality	, ,	
Select only one.			
High (5)	Narrative Description of Vegetation		
Moderately high(4) Moderate (3)	Low spp diversity and/or predominan disturbance tolerant native species	ce of nonnative or low	
Moderately low (2)	Native spe are dominant component	of the vegetation, mod	
Low (1)	although nonnative and/or disturbance	•	
x None (0)	can also be present, and species dive	ersity moderate to	
6c. Coverage of invasive plants. Refer	moderately high, but generallyw/o pre	sence of rare	
Table 1 ORAM long form for list. Add	threatened or endangered spp to	0 0 111	
or deduct points for coverage  Extensive >75% cover (-5)	A predominance of native species, was and/or disturbance tolerant native species.		
Moderate 25-75% cover (-3)	absent, and high spp diversity and of	•	
x Sparse 5-25% cover (-1)	the presence of rare, threatened, or e	•	
Nearly absent <5% cover (0)			
Absent (1)	Mudflat and Open Water Class Qua	lity	
· · · · · · · · · · · · · · · · · · ·	Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres		
	2 Moderate 1 to <4ha (2.47 to 9.88 acre		
	B High 4ha (9.88 acres) or more		
0 Standing dead >25cm (10in) dbh			
0 Amphibian breeding pools	Microtopography Cover Scale		
	Absent     Present very small amounts or if more	acommon	
	of marginal quality	5 COMMINUM	
$\overline{}$	2 Present in moderate amounts, but no	t of highest	
Modified Category 2	quality or in small amounts of highest	-	
30.5 GRAND TOTAL(max 100 pts)	Present in moderate or greater amou	nts	
	and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 069

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 069

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 069

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 069

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 069

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmis	ssion Line	City/Cou	nty: Licking	County	Sampling Dat	e: <u>0</u> 6/10	0/2020
Applicant/Owner: AEP				State: OH	Sampling Poi		-200610-07
Investigator(s): AEH, SKM		Section, T	ownship, Ra	nge: S15. T18N. R16W	·		
Landform (hillside, terrace, etc.): hillside		!	Local relief (c	concave, convex, none): r	none		
Slope (%): 10 Lat: 39.926910		Long: -	82.27592		Datum: NAD 83	3	
Soil Map Unit Name: Chili loam, 6 to 12 percent slopes,	, eroded (Ch			NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical for	r this time of	f year?	Yes x	No (If no, exp	lain in Remarks	5.)	
Are Vegetation , Soil , or Hydrology si	ignificantly d	•		Circumstances" present?			
Are Vegetation , Soil , or Hydrology n				xplain any answers in Ren			-
SUMMARY OF FINDINGS – Attach site ma		·			·	eatures	, etc.
Hydrophytic Vegetation Present? Yes X No		Is the	Sampled A	rea			
			n a Wetland?		No		
Wetland Hydrology Present? Yes X No							
Remarks:		-					
Point in to Wetland 070 is located at the bottom of a hil outside of the survey area towards an NWI-mapped we				field to the south. The we	tland extends to	o the west	:
VEGETATION – Use scientific names of plan	nts.						
701	Absolute	Dominant	Indicator	5 Comment Took was			
Tree Stratum (Plot size: 30' ) 1.	% Cover	Species?	Status	Dominance Test wor			
				Number of Dominant S Are OBL, FACW, or FA	•	3	(A)
3.				Total Number of Domi		-	_ (~)
4.				Across All Strata:	nanı əpecies	3	(B)
5.				Percent of Dominant S	- Species That		
		Total Cover		Are OBL, FACW, or FA	•	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15' )							
1				Prevalence Index wo			
2.				Total % Cover of:		iply by:	_
3.				OBL species 55		55	-
4.				FACW species 30		60	-
5	<del></del> .	=Total Cover		FAC species 5 FACU species 0		15 0	-
Herb Stratum (Plot size: 5' )		- Tutai Guvei		UPL species 0		0	-
1. Juncus effusus	20	Yes	OBL	Column Totals: 90		130	(B)
Juncus anthelatus	20	Yes	FACW	Prevalence Index =	` ´ _	1.44	_(_,
3. Eupatorium perfoliatum	15	Yes	OBL				-
Scirpus atrovirens	10	No	OBL	Hydrophytic Vegetati	ion Indicators:		
5. Carex crinita	10	No	OBL	1 - Rapid Test for	Hydrophytic Ve	getation	
6. Agrostis gigantea	10	No	FACW	X 2 - Dominance Te	st is >50%		
7. Equisetum arvense	5	No	FAC	X 3 - Prevalence Ind			
8				4 - Morphological			
9.				data in Remark	·		
10		<del></del>		Problematic Hydro			
Manada Mina Chraham (Diataiza: 201 )	90 =	=Total Cover		<sup>1</sup> Indicators of hydric so be present, unless dist			must
Woody Vine Stratum (Plot size: 30' ) 1.				·	urbed of proble	emauc.	
2.				Hydrophytic			
	<del></del> :	=Total Cover		Vegetation Present? Yes	X No		
Remarks: (Include photo numbers here or on a separa				-			
Hydrophytic vegetation indicator present as Rapid Test	,						

SOIL Sampling Point: <u>aeh-200610-</u>

	cription: (Describe	to the dept				tor or c	onfirm the absence	of indicators.)
Depth	Matrix			x Featur		. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-8	5B 5/1	90	10YR 6/6	10	<u>C</u>	PL	Loamy/Clayey	Prominent redox concentrations
8-18	5B 5/1	100	_				Loamy/Clayey	
			_					
			_					
	. ———							
1- 0.6							2,	
	Concentration, D=Dep	letion, RM=	Reduced Matrix, I	VIS=IVIas	ked Sand	Grains		n: PL=Pore Lining, M=Matrix.
	Indicators:		Sandy Glo	wod Mat	riv (S1)			rs for Problematic Hydric Soils <sup>3</sup> : st Prairie Redox (A16)
Histoso			Sandy Gle Sandy Re	-				, ,
	pipedon (A2) listic (A3)		Stripped N					Manganese Masses (F12) Parent Material (F21)
	en Sulfide (A4)		Dark Surfa	•	٥)			Shallow Dark Surface (F22)
	d Layers (A5)		Loamy Mu		eral (E1)			er (Explain in Remarks)
	uck (A10)		X Loamy Gle	-			Othe	(Explain in Nelliaiks)
l <del></del>	uck (ATO) d Below Dark Surface	(Δ11)	Depleted I	-				
		(411)	Redox Da		-		<sup>3</sup> Indicato	rs of hydrophytic vegetation and
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)			Depleted I		, ,			and hydrology must be present,
5 cm Mucky Peat or Peat (S3)			Redox De					ss disturbed or problematic.
	Layer (if observed):	,		p. 000.0	- ()			
Type:	Layer (ii observed).							
Depth (	inches).						Hydric Soil Presen	t? Yes X No
			_					100 <u>X</u> 100
Remarks:	rm is revised from Mi	dwoot Bogi	anal Cunniamant \	/orgion (	0 to incl	udo tho	NDCS Field Indicator	s of Hydric Soils in the United States,
	, 2018. (https://www.r							s of Hydric Solls III the Officed States,
	ndicator present as gl			000		· · ·	. осо	
HYDROL	OGY							
	/drology Indicators:							
-	icators (minimum of o	ne is requir	ed check all that	apply)			Seconda	ry Indicators (minimum of two required)
_	Water (A1)	no io rogan	Water-Sta		ves (B9)			ace Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa					nage Patterns (B10)
l — _ ~	ion (A3)		True Aqua					Season Water Table (C2)
	//arks (B1)		Hydrogen		` '			fish Burrows (C8)
	nt Deposits (B2)		X Oxidized F					ration Visible on Aerial Imagery (C9)
	posits (B3)		Presence			_	` ' —	ted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro					morphic Position (D2)
	posits (B5)		Thin Muck					-Neutral Test (D5)
	ion Visible on Aerial I	magery (B7	) Gauge or	Well Dat	a (D9)			, ,
Sparsel	y Vegetated Concave	Surface (B	88) Other (Exp	olain in F	Remarks)			
Field Obse	rvations:							
Surface Wa	ter Present? Ye	s	No x	Depth (i	nches):			
Water Table	e Present? Ye	s	No x	Depth (i	nches):			
Saturation F	Present? Ye	s		Depth (i	_		Wetland Hydrolo	gy Present? Yes X No
(includes ca	apillary fringe)							
Describe Re	ecorded Data (stream	gauge, mo	nitoring well, aeria	al photos	, previous	inspec	tions), if available:	
Remarks:	nomi and seemiles. I	ا : ا معامی	diantors are seed 5	Tha41	and de-!	a b	الاحداد المعاملة	woot to a panel leasted and the state
	•		•			-		west to a pond located outside of the wetland, potentially isolated.
54. V5y 4.06	William a	appou 10	your noouplain,		_ Ji kiliubi	- Graind	gs .oa.a.oo .ioiii iilo (	

## Upland 074

Project/Site: Crooksville-North Newark 138 kV Transmission	ı Line City/Cour	nty: Licking Co	ounty	Sampling Date:	06/10/2020
Applicant/Owner: AEP			State: OH	Sampling Point:	upl-aeh-200610-08
Investigator(s): AEH, SKM	Section, T	ownship, Rang	je: S15. T18N. R16W	<i>I</i>	
Landform (hillside, terrace, etc.): hillside	L	ocal relief (cor	ncave, convex, none):	none	
Slope (%):15 Lat: 39.9271477	Long:{	32.275731	-	Datum: NAD 83	
Soil Map Unit Name: Chili loam, 6 to 12 percent slopes, eroo	ded (ChC2)		NWI classif	ication: N/A	
Are climatic / hydrologic conditions on the site typical for this		Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrologysignifi	-		cumstances" present?		)
Are Vegetation, Soil, or Hydrologynatura			in any answers in Rer		
SUMMARY OF FINDINGS – Attach site map s			-	•	ures, etc.
Hydrophytic Vegetation Present? Yes No X	Is the	Sampled Area	а		
Hydric Soil Present? Yes No X		a Wetland?	Yes	No X	
Wetland Hydrology Present? Yes No X				<del></del>	
Remarks:					
Upland 074 is point out located northeast of Wetland 070 o	n a hillside north of ar	ı agricultural fie	eld. Not a wetland poin	t as no wetland crit	eria met.
<b>VEGETATION</b> – Use scientific names of plants.					
	solute Dominant	Indicator			
	Cover Species?	Status	Dominance Test wor	ksheet:	
1			Number of Dominant	•	
2.			Are OBL, FACW, or F	AC:	0 (A)
3			Total Number of Dom	inant Species	^ (D)
4			Across All Strata:	· ·	3 (B)
5	=Total Cover		Percent of Dominant S Are OBL, FACW, or F	•	0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )			AIE ODL, FACEV, OF I	AC	(7/12)
1.			Prevalence Index wo	orksheet:	
2.	<del></del> ·		Total % Cover of		by:
3.			OBL species 2	x 1 =	2
4.			FACW species 10	0 x 2 =	20
5			FAC species5		15
	=Total Cover		FACU species 95		80
Herb Stratum (Plot size: 5' )	.,	= : = : .	UPL species 0		0 (5)
	35 Yes	FACU	Column Totals: 11	`	17 (B)
	30 Yes	FACU	Prevalence Index	= B/A = <u>3.72</u>	
	30 Yes No	FACU FACW	Hydrophytic Vegetat	ion Indicators:	
5. Rumex crispus	5 No	FAC		Hydrophytic Vegeta	ation
6. Juncus effusus	2 No	OBL	2 - Dominance Te		ation
7	<del></del>		3 - Prevalence Inc		
8.				Adaptations <sup>1</sup> (Provi	de supporting
9.			data in Remark	s or on a separate	sheet)
10			Problematic Hydro	ophytic Vegetation <sup>1</sup>	(Explain)
	112 =Total Cover		<sup>1</sup> Indicators of hydric se		
Woody Vine Stratum (Plot size: 30' )		L	be present, unless dis	turbed or problema	tic.
1			Hydrophytic		
2	-Total Cover		Vegetation	No. V	
<del>-</del>	=Total Cover		Present? Yes	No X	_
Remarks: (Include photo numbers here or on a separate since No hydrophytic vegetation indicators present.	neet.)				
No flydrophydd vegetadon maldators present.					

Upland 074

SOIL Sampling Point: <u>-aeh-200610</u>

	cription: (Describe	to the depth				tor or c	onfirm the ab	sence of indicate	ors.)	
Depth	Matrix			x Featur		. 2	_			
(inches)	Color (moist)	<u> </u>	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks	
0-5	10YR 4/3	100					Loamy/Cla	ayey		
			-				-			
	-									
	oncentration, D=Dep	letion, RM=R	Reduced Matrix, N	иS=Mas	ked Sand	d Grains		Location: PL=Pore		
Hydric Soil			Sandy Cla	uad Mat	riv (C.1)		ır	ndicators for Prol	-	Solis":
Histosol			Sandy Gle	-			_	Coast Prairie R		
	pipedon (A2) stic (A3)		Sandy Red Stripped M				_	Red Parent Ma	e Masses (F12)	
	en Sulfide (A4)		Dark Surfa	•	))		_		teriai (F21) Park Surface (F22	))
	d Layers (A5)		Loamy Mu		aral (E1)		_	Other (Explain		.)
	ıck (A10)		Loamy Gle	•	. ,		_	Other (Explain	iii Reiliaiks)	
	d Below Dark Surfac	- (Δ11)	Depleted N							
· ·	ark Surface (A12)	5 (7 11 1)	Redox Dai	`	,		3 <sub>1</sub>	ndicators of hydro	phytic vegetation	and
l ——	Mucky Mineral (S1)		Depleted [		` '		•			
	icky Peat or Peat (S	3)	Redox De		` '			wetland hydrology must be present, unless disturbed or problematic.		
Restrictive	Layer (if observed)	<u>′</u>	_ <del></del>						· ·	
Type:	Layer (ii observea)	•								
Depth (ii	nches):		_				Hydric Soil	Present?	Yes	No X
Remarks:			_							
	rm is revised from Mi	dwest Region	nal Supplement \	ersion 2	2.0 to incl	ude the	NRCS Field Ir	ndicators of Hvdric	Soils in the Unit	ed States.
	2018. (https://www.r									,
No hydric so	oil indicators present.	Shovel refus	al at 5" depth du	e to rock	ί.					
HYDROLO	OGY									
Wetland Hv	drology Indicators:									
	cators (minimum of o		d; check all that	apply)			<u>s</u>	Secondary Indicato	rs (minimum of to	wo required)
Surface	Water (A1)		Water-Sta	ined Lea	ves (B9)			Surface Soil Cr	acks (B6)	
High Wa	ater Table (A2)		Aquatic Fa	una (B1	3)		<u> </u>	Drainage Patte	rns (B10)	
Saturation	on (A3)		True Aqua	tic Plant	s (B14)			Dry-Season Wa	ater Table (C2)	
Water M	larks (B1)		Hydrogen	Sulfide (	Odor (C1	)		Crayfish Burrov	vs (C8)	
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosph	eres on l	_iving R	oots (C3)	Saturation Visit	ole on Aerial Ima	gery (C9)
	posits (B3)		Presence	of Reduc	ced Iron (	C4)	_	Stunted or Stre	ssed Plants (D1)	
	at or Crust (B4)		Recent Iro			lled Soil	s (C6)	Geomorphic Po		
	oosits (B5)		Thin Muck		` '		_	FAC-Neutral Te	est (D5)	
	on Visible on Aerial I	0 , ,	Gauge or '		` '					
Sparsely	/ Vegetated Concave	Surface (B8	Other (Exp	olain in F	Remarks)					
Field Obser										
Surface Wat		es			nches): _					
Water Table		es			nches):_					
Saturation P		es	No <u>x</u>	Depth (i	nches):		Wetland H	lydrology Presen	it? Yes	No X
_,	pillary fringe)		:t-=:				tions) if availa	.hla.		
Describe Re	corded Data (stream	i gauge, mon	itoring well, aeria	ıı priotos	, previou	sinspec	uons), it avalla	able:		
Remarks:										
	y indicators present.									
	•									
Ī										

	e-North Newark 138 kV Transmission L	ine Rebuild Project	Date:	June 10, 2020
	aeh-20200610-07	Line Resulta i Toject	Rater:	AH, SM
	2011 20200010 07			711, OM
1 1 subtotal Points	Metric 1. Wetland Area (size). (ma Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (3)  3 to <10 acres (1.2 to <4ha) (3)  0.3 to <3 acres (0.12 to <1.2ha)  x 0.1 to <0.3 acres (0.04 to <0.12  <0.1 acres (0.04ha) (0 pts)	na) (5 pts) (4 pts) pts) ) (2pts)		
5 4 Dubtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one  WIDE. Buffers average 50m (1  MEDIUM. Buffers average 25m  x NARROW. Buffers average 10  VERY NARROW. Buffers average	e, <u>do not double check)</u> 164ft) or more around wet n to <50m (82 to <164ft) a lm to <25m (32ft to <82ft	tland perimeter (7) around wetland pe t) around wetland	perimeter (4)
	2b. Intensity of surrounding land use (select of VERY LOW. 2nd growth or old:  x LOW. Old field (>10 years), shr  MODERATELY HIGH. Resider  x HIGH. Urban, industrial, open p	er forest, prairie, savanna rubland, young second gi ntial, fenced pasture, park	ah, wildlife area, e rowth forest. (5) k, conservation tilla	age, new fallow field. (3)
17 12 ubtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  x Precipitation (1)  Seasonal/Intermittent surface w Perennial surface water (lake or	vater (3) r stream) (5)	100 year Between x Part of	Score all that apply.  ser floodplain (1) en stream/lake and other human use (1) wetland/upland (e.g. forest), complex (1) riparian or upland corridor (1)
	3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)	`	(select one or Semi- t Regula x Seasor	r double check & average)  to permanently inundated/saturated (4)  arly inundated/saturated (3)  nally inundated (2)  nally saturated in upper 30cm (12in) (1)
	3e. Modifications to natural hydrologic regime (select one or double check & average None or none apparent (12) x Recovered (7) Recovering (3) Recent or no recovery (1)	e) [ [		sturbances observed
25 8 ubtotal Points	Metric 4. Habitat Alteration and D  4a. Substrate disturbance. Score one or dou  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.	uble check and average.	4c. Habitat alterat None o	tion. Score one or double check and average. or none apparent (9) ered (6) ering (3) t or no recovery (1)
	Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  x Poor to fair (2)  Poor (1)	Check all disturb  ✓ mowing  ☐ grazing  ☐ clearcutting  ☐ selective cutting  ☐ woody debris remo  ☐ toxic pollutants	C C C val	ed shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient emrichment

25 subtotal this page

Site: Crooksville-North Newark 138 kV Transmission Line	DakuilDotos	luna 40, 2020								
		June 10, 2020								
Wetland: w-aeh-20200610-07	Rater:	AH, SM								
subtotal first page										
25 Metric 5. Special Wetlands. (max 10	pts.)									
Subtotal Points <u>Check all that apply and score as indicated</u>										
Bog (10 pts)										
Fen (10 pts)										
Old Growth Forest (10 pts)										
Mature forested wetland (5 pts)										
	Lake Erie coastal/tributary wetland-unrestricted hydrology (10 pts)									
	Lake Erie coastal/tributary wetland-restricted hydrology (5 pts)									
	Lake Plain Sand Prairies (Oak Openings) (10 pts)									
Relict Wet Prairies (10 pts)										
Known occurrence state/federa	=									
Significant migatory songbird/w Category 1 Wetland. See Que	_									
Category I Welland. See Que	Stion 1 of Qualitative Na	illing. (-10 pts)								
30 5 Metric 6. Plant Communities, intersp	ersion microtono	ography (max 20 pts )								
Subtotal Points 6a. Wetland Vegetation Communities		9. up. ). (ax = 0 p.c.)								
Score all present using 0 to 3 scale	Vegetation	n Community Cover Scale								
Aquatic bed		•								
2 Emergent	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area								
Shrub										
Forest	1	Present and either comprises small part of wetland's vegetation and is								
Mudflats		of moderate quality, or comprises a significant part but is of low quality								
Open water		Present and either comprises significant part of wetland's vegetation								
Other (list)	2	and is of moderate quality or comprises a small part and is of high								
		quality								
6b. Horizontal (plan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation								
Select only one		and is of high quality								
High (5)	Namativa	Description of Vocatation Overlity								
Moderately high (4)	Narrative	Description of Vegetation Quality								
Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species								
Moderately low (2)										
Low (1)  x None (0)		Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present,								
X None (0)	moderate	and species diversity moderate to moderately high, but generally w/o								
6c. Coverage of invasive plants.		presence of rare threatened or endangered spp								
Refer to Table 1 ORAM long form for list.		A predominance of native species, with nonnative spp and/or								
Add or deduct points for coverage		disturbance tolerant native species, with normalive spp and/or								
Extensive >75 % cover (-5)	nian	diversity and often, but not always, the presence of rare, threatened, or								
Moderate 25-75% cover (-3)		endangered spp								
Sparse 5-25% cover (-1)	•									
Nearly Absent <5% cover (0)	Mudflat ar	nd Open Water Class Quality								
x Absent (1)	0	Absent <0.1 ha (0.2471 acres)								
	1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)								
		Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)								
6d. Microtopography	3	High 4 ha (9.88 acres) or more								
Score all present using 0 to 3 scale	Mionotono	avanhy Cayar Caala								
2 Vegetated hummocks/tussocks		graphy Cover Scale								
0 Coarse woody debris >15 cm (0 0 Standing dead > 25 cm (10") dl		Absent								
0 Standing dead > 25 cm (10") di	on 1	Present very small amounts or if more common of marginal quality								
_ o Ampilibian preeding pools		Present in moderate amounts, but not of highest quality or in small								
	2	amounts of highest quality								
	3	Present in moderate or greater amounts and of highest quality								



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 070

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing North



#### Wetland 070

Date:

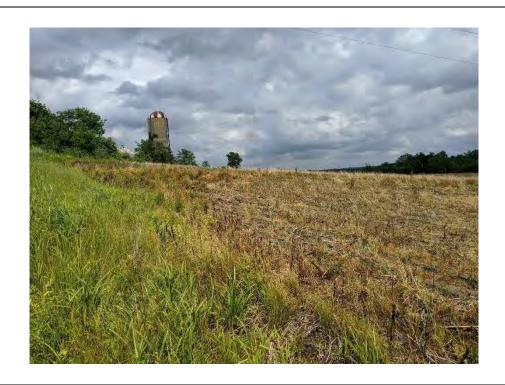
June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

AEP

Site Location:

Rebuild Project

Crooksville-North Newark 138 kV Transmission Line

**Project No.** 60616110

#### Wetland 070

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing South



#### Wetland 070

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 070

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmi	ssion Line	City/Cou	ınty: Licking	County	Sampling Date:	06/10/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-aeh-200610-08
Investigator(s): AEH, SKM		Section, T		nge: S15. T18N. R16W		
Landform (hillside, terrace, etc.): Swale			Local relief (c	concave, convex, none): I	None	
Slope (%): 0 Lat: 39.92945				_	Datum: NAD 83	
Soil Map Unit Name: Chili loam, 12 to 18 percent slope	s, eroded (C			NWI classifi	cation: N/A	
Are climatic / hydrologic conditions on the site typical fo			Yes x	No (If no, exp		
Are Vegetation , Soil , or Hydrology s		•		Circumstances" present?		1
Are Vegetation, Soil, or Hydrologyn				plain any answers in Ren		
SUMMARY OF FINDINGS – Attach site ma					•	ures, etc.
Hydrophytic Vegetation Present? Yes X No	<del></del>	le the	e Sampled Ar	ro2		
	, <u> </u>		n a Wetland?		No	
Wetland Hydrology Present? Yes X No				· · · · · · · · · · · · · · · · · · ·		
Remarks:						
Point in to PSS Wetland 071 is located within a swale	that extends	outside of the	e survey corri	idor and is along intermitt	ent Stream 072.	
VEGETATION – Use scientific names of plan						
<u>Tree Stratum</u> (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	kshoot:	
1. Acer saccharinum	5	Yes	FACW			
2. Salix nigra	5	Yes	OBL	Number of Dominant S Are OBL, FACW, or FA	•	8 (A)
3. Fraxinus pennsylvanica	3	Yes	FACW	Total Number of Domi	-	` '
4.				Across All Strata:	•	8 (B)
5.				Percent of Dominant S	Species That	
	13	=Total Cover		Are OBL, FACW, or FA		0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )						
1. Platanus occidentalis	20	Yes	FACW	Prevalence Index wo		
2. Salix nigra	15	Yes	OBL	Total % Cover of:		
3. Acer saccharinum	15	Yes	FACW	OBL species 25		25
4. <u>Ulmus americana</u>	10	No	FACW	FACW species 78		<u>56</u>
5	60	=Total Cover		FAC species 50 FACU species 0		50 0
Herb Stratum (Plot size: 5' )	- 00	- Tutal Cuvei		UPL species 0		0
1. Poa pratensis	35	Yes	FAC	Column Totals: 15		31 (B)
Impatiens capensis	25	Yes	FACW	Prevalence Index =		
3. Carex molesta	15	No	FAC			
4. Carex lurida	5	No	OBL	Hydrophytic Vegetat	ion Indicators:	
5.				1 - Rapid Test for	Hydrophytic Vegeta	ation
6.				X 2 - Dominance Te	st is >50%	
7				X 3 - Prevalence Ind		
8					Adaptations <sup>1</sup> (Provi	
9					s or on a separate s	
10		<del>- : : : : : : : : : : : : : : : : : : :</del>			phytic Vegetation <sup>1</sup>	
(Plat size)	80	=Total Cover		<sup>1</sup> Indicators of hydric so	•	0,
Woody Vine Stratum (Plot size: 30' )				be present, unless dis	turbed or problema	ilc.
1. 2.				Hydrophytic		
Z		=Total Cover		Vegetation Present? Yes	X No	
Describes (Include whate numbers here or on a congr		- Total Cove.		Frederit: 100_		-
Remarks: (Include photo numbers here or on a separa Hydrophytic vegetation indicator present as dominance	,	,				
riyalopriyaa ragaaaan maasaa. p. 222 aa 22	7 (00)	•				

SOIL Sampling Point: <u>aeh-200610-</u>

Profile Description: (Describe to the dept		ument th		tor or c	onfirm the absence o	of indicators.)
Depth Matrix						
(inches) Color (moist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18 10YR 5/1 85	10YR 6/6	15	С	PL	Loamy/Clayey	Prominent redox concentrations
<del></del>						
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=F	Reduced Matrix, l	MS=Masl	ced Sand	l Grains.		PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:					Indicators	s for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gle	-	ix (S4)		? Coast	Prairie Redox (A16)
Histic Epipedon (A2)	Sandy Re	, ,				Manganese Masses (F12)
Black Histic (A3)	Stripped N	•	)			Parent Material (F21)
Hydrogen Sulfide (A4)	Dark Surfa					Shallow Dark Surface (F22)
Stratified Layers (A5)	Loamy Mu	-			Other	(Explain in Remarks)
2 cm Muck (A10)	Loamy Gle	-				
Depleted Below Dark Surface (A11)	X Depleted I				3	
Thick Dark Surface (A12)	Redox Da		` '			s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted I		` '			nd hydrology must be present,
5 cm Mucky Peat or Peat (S3)	Redox De	pressions	s (F8)		unless	s disturbed or problematic.
Restrictive Layer (if observed):						
Type:	<u> </u>					
Depth (inches):	_				Hydric Soil Present	? Yes <u>X</u> No
Remarks:						
This data form is revised from Midwest Regio						of Hydric Soils in the United States,
Version 8.2, 2018. (https://www.nrcs.usda.go Hydric soil indicator present as low chroma/hi	_		N I S/nrcs	142p2_	0531/1.pdf)	
riyunc son mulcator present as low chroma/m	gii value deplete	u maun.				
HYDDOL OCY						
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one is require			<b></b>			y Indicators (minimum of two required)
Surface Water (A1)	Water-Sta					ce Soil Cracks (B6)
X High Water Table (A2)	Aquatic Fa	•	•			age Patterns (B10)
X Saturation (A3) Water Marks (B1)	True Aqua					eason Water Table (C2)
	Hydrogen					ish Burrows (C8) ation Visible on Aerial Imagery (C9)
Sediment Deposits (B2) Drift Deposits (B3)	X Oxidized F Presence			-	` '	ed or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iro			-		norphic Position (D2)
Iron Deposits (B5)	Thin Muck			iou com	• • —	Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or		-		<u> </u>	(10di.di 100t (20)
Sparsely Vegetated Concave Surface (B	<u> </u>		` '			
Field Observations:	<u> </u>		,			
Surface Water Present? Yes	No x	Depth (ir	nches):			
Water Table Present? Yes x	No	Depth (ir		8		
Saturation Present? Yes x	No	Depth (ir	· -		Wetland Hydrolog	y Present? Yes X No
(includes capillary fringe)			′ –			
	nitoring well, aeria	al photos,	previous	inspect	tions), if available:	
Describe Recorded Data (stream gauge, mor				-		
Describe Recorded Data (stream gauge, mor						
Remarks:		_	_			
						drains west to Wise Run that flows

## Upland 075

Project/Site: Crooksville-North Newark 138 kV Transm	nission Line	City/Cou	ınty: Licking	County	Sampling Date	e: 06/10/2020
Applicant/Owner: AEP				State: OH	Sampling Point	t: upl-aeh-200610-09
Investigator(s): AEH, SKM		Section, T	_ Γownship, Ra	nge: S15. T18N. R16W	I	
Landform (hillside, terrace, etc.): flat			Local relief (c	concave, convex, none): <u>ı</u>	none	
Slope (%):0 Lat: 39.92933		Long: -	-82.277692		Datum: NAD 83	
Soil Map Unit Name: Chili loam, 12 to 18 percent slope	es, eroded (C	ChD2)		NWI classifi	ication: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time o	f year?	Yes x	No (If no, exp	lain in Remarks.	)
Are Vegetation, Soil, or Hydrology		-	Are "Normal C	Circumstances" present?		No
Are Vegetation, Soil, or Hydrology	naturally prol	blematic? (	(If needed, ex	plain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site ma			g point lo	cations, transects,	important fe	atures, etc.
Hydrophytic Vegetation Present? Yes X No	lo	Is the	e Sampled Ar	rea		
	lo X		n a Wetland?		No X	
	lo X					
Remarks:						
Upland 075 is point out located south of Wetland 071.	. Not a wetla	ind point as hy	ydric soil and	hydrology criteria not me	t.	
VEGETATION – Use scientific names of pla		Dominant	Indiantor	т		
Tree Stratum (Plot size: 30' )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:	
1. Morus alba	15	Yes	FAC	Number of Dominant S		
2. Ulmus americana	5	Yes	FACW	Are OBL, FACW, or FA	•	6 (A)
3. Acer saccharinum	5	Yes	FACW	Total Number of Domi	nant Species	
4				Across All Strata:	_	7 (B)
5		<del>- : : : : : : : : : : : : : : : : : : :</del>		Percent of Dominant S	•	===== (A/D)
Combined Charles Charles (Diet size) 451	25:	=Total Cover		Are OBL, FACW, or F	AC:	85.7% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	)	Voc	E A C \	Drevelence Index we		
Ulmus americana     Morus alba	<u>5</u>	Yes Yes	FACW FAC	Prevalence Index wo Total % Cover of:		oly by:
3.		103	TAG	OBL species 0		0 0
4.				FACW species 25		50
5.				FAC species 35		105
	10	=Total Cover		FACU species 20	x 4 =	80
Herb Stratum (Plot size: 5' )				UPL species 10		50
Solidago canadensis	20	Yes	FACU	Column Totals: 90		285 (B)
2. Alliaria petiolata	15	Yes	FAC	Prevalence Index =	= B/A = <u>3.</u>	.17
3. Verbesina alternifolia	10	No	FACW			
4. Glycine max	10	No	UPL	Hydrophytic Vegetat		
5.				1 - Rapid Test for		etation
6 7.				X 2 - Dominance Te 3 - Prevalence Ind		
				4 - Morphological		ovide supporting
9.					s or on a separat	
10.				Problematic Hydro	•	
	55	=Total Cover		<sup>1</sup> Indicators of hydric so		
Woody Vine Stratum (Plot size: 30'	)			be present, unless dist		
1				Hydrophytic		
2.				Vegetation		
	<del></del>	=Total Cover		Present? Yes_	<u> </u>	
Remarks: (Include photo numbers here or on a separate	,					
Hydrophytic vegetation indicator present as dominand	ce test > 50%	).				

Upland 075

SOIL Sampling Point: <u>|-aeh-200610</u>

		to the depth				itor or c	confirm the absence of	f indicators.)
Depth	Matrix			x Featu		12	T	Demonto
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 4/4	100					Loamy/Clayey	
1 <sub>Type: C=C</sub>	oncentration, D=Dep	letion RM-F	Peduced Matrix I	 M-2N	ked Sand	d Grains	<sup>2</sup> l ocation:	PL=Pore Lining, M=Matrix.
Hydric Soil		iction, rtivi–i	teduced Matrix, 1	vio-ivias	ikou oane	J Oranis		for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	yed Mat	rix (S4)			Prairie Redox (A16)
	pipedon (A2)		Sandy Re					anganese Masses (F12)
	istic (A3)		Stripped M					arent Material (F21)
Hydroge	en Sulfide (A4)		Dark Surfa	ace (S7)			Very S	shallow Dark Surface (F22)
Stratified	d Layers (A5)		Loamy Mu	icky Min	eral (F1)		Other (	(Explain in Remarks)
2 cm Mu	uck (A10)		Loamy Gle	eyed Ma	trix (F2)			
Depleted	d Below Dark Surface	e (A11)	Depleted I	Matrix (F	3)			
Thick Da	ark Surface (A12)		Redox Da	rk Surfa	ce (F6)		<sup>3</sup> Indicators	of hydrophytic vegetation and
	/lucky Mineral (S1)		Depleted [					d hydrology must be present,
5 cm Mu	ucky Peat or Peat (S3	)	Redox De	pression	s (F8)		unless	disturbed or problematic.
Restrictive	Layer (if observed):							
Type:			_					
Depth (i	nches):		_				Hydric Soil Present?	Yes No_X
Version 8.2,	rm is revised from Mic 2018. (https://www.n y indicators present.	•						of Hydric Soils in the United States,
HYDROLO	OGY							
	drology Indicators:							
_	cators (minimum of o	ne is require	d: check all that	apply)			Secondary	Indicators (minimum of two required)
	Water (A1)		Water-Sta		ives (B9)			e Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		` '		 Draina	ge Patterns (B10)
Saturation	on (A3)		True Aqua	itic Plant	s (B14)		Dry-Se	eason Water Table (C2)
Water M	larks (B1)		Hydrogen	Sulfide (	Odor (C1)	)	Crayfis	sh Burrows (C8)
Sedimer	nt Deposits (B2)		Oxidized F			-	oots (C3) Satura	tion Visible on Aerial Imagery (C9)
	posits (B3)		Presence					d or Stressed Plants (D1)
·	at or Crust (B4)		Recent Iro			lled Soil	` '	orphic Position (D2)
	posits (B5)		Thin Muck				X FAC-N	leutral Test (D5)
	on Visible on Aerial Ir	0, 1,	Gauge or		, ,			
	y Vegetated Concave	Surrace (Ba	S) Other (Exp	Diain in F	Remarks)		1	
Field Obser			NI= v	Danath /				
	ter Present? Ye				nches):_			
Water Table Saturation F		s			nches): _ nches):		Wetland Hydrology	y Present? Yes No X
	pillary fringe)	<u> </u>	NO X	Deptii (i			wetiand riyurology	y Present? Yes No X
_,	corded Data (stream	gauge mon	itoring well aeria	l photos	previous	s inspec	tions) if available	
20001100110		المار , دوست			, p	spoo	,,	
Remarks:								
One second	ary hydrology indicate	or present.						

Site: Cro	oksville- N	ewark Project	Rater(s): Audrey	Hanner	Date:	6/10/2020
		•	· · · · · ·	Field Id:	•	
	2	2 Metric 1. Wet	and Area (size).	w-aeh-20200610	)-08	
max 6 pts	subtotal	Select one size class	-		_	
		>50 acres (>20.2ha) (			acres	
		25 to <50 acres (10.1 10 to <25 acres (4 to				
		3 to <10 acres (1.2 to	, , , ,			
		x 0.3 to <3 acres (0.12 t				
		0.1 to <0.3 acres (0.04 <0.1 acres (0.04ha) (0				
	3			rounding land use.		
max 14 pts.	subtotal	<del></del>		ne and assign score. Do not double c	hack	
max 14 pts.	Subtotal		e 50m (164ft) or more around		neon.	
				ft) around wetland perimeter (4)		
				2ft) around wetland perimeter (1)		
			fers average <10m (<32ft) arou			
			-	or double check and average.		
			rth or older forest, prairie, sava ears), shrubland, young secon			
				oark, conservation tillage, new fallow fie	eld. (3)	
			al, open pasture, row cropping,		(0)	
	7.0 12.	.0 Metric 3. Hyd	ology.			
max 30 pts.	subtotal		. Score all that apply.	3b. Connectivity. Score	all that apply.	
		High pH groundwater	(5)	100 year floodplain (1)		
		Other groundwater (3)		x Between stream/lake and		
		x Precipitation (1) Seasonal/Intermittent	surface water (3)	Part of wetland/upland (e. Part of riparian or upland (e.		
		Perennial surface wat	` ,		saturation. Score one or dbl ch	eck.
		3c. Maximum water of		Semi- to permanently inur		
		>0.7 (27.6in) (3)		Regularly inundated/satur	ated (3)	
		0.4 to 0.7m (15.7 to 27 x <0.4m (<15.7in) (1)	7.6IN) (2)	Seasonally inundated (2)  x Seasonally saturated in up	oner 30cm (12in) (1)	
			natural hydrologic regime. S	core one or double check and average		
		None or none apparer		Check all disturbances of		
		Recovered (7)		x ditch	point source (nonstormwate	er)
		x Recovering (3) Recent or no recovery	(1)	x tile dike	x filling/grading x road bed/RR track	
		Recent of no recovery	(1)	weir	x dredging	
				stormwater input	Other:	
	10 2	2 Metric 4. Hab	tat Alteration and I	Development.		
max 20 pts.	subtotal	4a. Substrate disturb	ance. Score one or double c	heck and average.		
		None or none apparer	t (4)	_		
		x Recovered (3)				
		x Recovering (2) Recent or no recovery	(1)			
			ent. Select only one and ass	sign score.		
		Excellent (7)	•			
		Very good (6)				
		Good (5)  Moderately good (4)				
		x Fair (3)				
		Poor to fair (2)				
		Poor (1)				
		4c. Habitat alteration None or none apparer	. Score one or double check	and average.  Check all disturbances ob	served	
		x Recovered (6)	n ( <i>a)</i>	x mowing	x shrub/sapling removal	
		x Recovering (3)		grazing	herbaceous/aquatic bed re	moval
		Recent or no recovery	(1)	x clearcutting	sedimentation	
				x selective cutting x woody debris removal	dredging x farming	
				x woody debris removal x toxic pollutants	x farming nutrient enrichment	
	2	22		· ·		
		his page ORAM v. 5.0 Field Fo	m Quantitative Pating			
	subtotal ti	nis page Urvaivi V. 5.0 Field F0	m Quantitative Rating			

w-aeh-20200610-080RAM.xlsm | test\_Field

Section   Para page   Para p	Site: Crooksville- Newark Project Rater(s): Audrey Hann	ner		Date:	6/10/2020
Metric 5. Special Wetlands. Check all that apply and score as indicated.    Bog (10)			Field Id:		
Metric 5. Special Wetlands. Check all that apply and score as indicated.  Sog (10) Fen (10) Did growth forest (10) Adure Toesded wetlands (5) Linke Eric cosstal/britually wetland-restricted hydrology (10) Linke Eric Cos	22		w-aeh-20200610-08		
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O Forest	<u> </u>			i comprises a	
Vegetation and is of moderate quality or comprises a small part and is of high quality  Select only one. High (5) Moderately high(4) Moderately low (2) Moderately low (2) Mone (0)  6. Coverage of invasive plants. Refer 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 (-7) Nearly absent <5% cover (-1) Nearly absent <5% cover (0) Absent (1) Socre all present using 0 to 3 scale.  0 Vegetation and is of high quality  vegetation and is of high quality  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species Native spp are dominant component of the vegetation, mod although nonnative and/or disturbance tolerant native species diversity moderate to moderately high, but generallywich presence of rare threadened or endangered spp to an also be present, and species diversity moderate to moderately high, but generallywich presence of rare threadened or endangered spp to an also be present, and species diversity moderate to moderately high, but generallywich presence of rare threadened or endangered spp to an also be present, and species diversity moderate to moderately high, but generallywich presence of rare threadened or endangered spp to an also be present, and species diversity moderate to moderate value and/or disturbance tolerant native species, with nonnative species, with nonnative and/or disturbance tolerant native species, with nonnative species, with nonnative species, with nonnative species, with nonnative or invatilely absent, and high species diversity and offen, but not always, the presence of native species, with nonnative and/or disturbance tolerant native species, with nonnative species, with nonn		2		t part of wetland's 2	
Other  6b. horizontal (plan view) Interspersion. Select only one.  High (5) Moderately high(4) Moderately high(4) Moderately low (2) X. Low (1) None (0)  6c. Coverage of invasive plants. Refer 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 (-6) X Absent (1)  6d. Microtopgraphy. Score all present using 0 to 3 scale.  0 Vegetated hummucks/fussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 1 Amphibian breeding pools  Category 1  GRAND TOTAL(max 100 pts)  3 Present and comprises significant part, or more, of wetland's 3 vegetation and is of high quality  a vegetation and is of high quality  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative or low disturbance tolerant native spp ecies  Native spp are dominant component of the vegetation, mod although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp to also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp to A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp acroan also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp to Martorotopyraphy spp diversity and/or disturbance tolerant native spp can also be present, and species diversity and/or disturbance tolerant native spp can also be present, and species with nonnative spp ind also the presence of rare threatened or endangered spp to A predominance or native species, with nonnative spp high and/or disturbance tolerant native spp acroan also be present, and species, with nonnative spp high and/or disturbance or analyse species, with nonnative and or species, with nonnative spp and/or disturbance or analyse species, with nonnati	Mudflats			•	
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Select only one.  High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)  X Low (1)  None (0)  6c. Coverage of invasive plants. Refer 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)  Nearty absent <5% cover (0)  X Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 1 Amphibian breeding pools  Category 1  GRAND TOTAL(max 100 pts)  Native spp are dominance of nonnative or low disturbance tolerant native species  Native spp are dominance of insurant compendent of the vegetation, mod although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallywoly presence of rare threatened or endangered spp to A predominance of native species, with nonnative spp high although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallywoly presence of rare threatened or endangered spp to A predominance of native species, with nonnative spp high although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallywoly presence of rare threatened or endangered spp to A predominance of native species, with nonnative spp high although nonnative and/or disturbance tolerant native spp can also obe present, and species diversity moderate to moderately high, but generallywoly presence of rare threatened or endangered spp to A predominance of native species, moderately high, but generallywoly presence of rare threatened or endangered spp to A predominance of native species.  A predomin		3		or more, of wetland's 3	
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Low (1)   None (0)   Can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp to   A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp to   A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent and/or disturbance tolerant native spp absent or moderately high, but generallyw/o presence of rare threatened or endangered spp to   A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent species, with nonnative spp absent or virtually absent species and/or disturbance tolerant	• • • • • • • • • • • • • • • • • • •				
None (0)   6c. Coverage of invasive plants. Refer	* * * * * * * * * * * * * * * * * * * *			-	
6c. Coverage of invasive plants. Refer 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) X Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 1 Amphibian breeding pools  Category 1  Category 1  GRAND TOTAL(max 100 pts)  moderately high, but generallyw/o presence of rare threatened or endangered spp to A predominance of native species, with nonnative spp high 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  Mudflat and Open Water Class Quality  Mudflat and Open Water Class Quality  0 Absent <0.1ha (0.247 acres) 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more  Microtopography Cover Scale 0 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  27 GRAND TOTAL(max 100 pts)			•		
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  X Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  0 Vegetated hummucks/fussucks  0 Coarse woody debris >15cm (6in)  1 Amphibian breeding pools  Category 1  Category 1  GRAND TOTAL(max 100 pts)  A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually and and/or disturbance tolerant native spp absent or virtually and some of native species, with nonnative spp high 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  Mudflat and Open Water Class Quality  0 Absent <0.1ha (0.247 acres)  1 Low 0.1 to <1ha (0.247 acres)  2 Moderate 1 to <4ha (2.47 to 9.88 acres)  3 High 4ha (9.88 acres) or more  Microtopography 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				•	
Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  X Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks  0 Coarse woody debris >15cm (6in)  1 Amphibian breeding pools  Category 1  Category 1  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  and/or disturbance tolerant native spp absent or viritually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Mudflat and Open Water Class Quality  Mudflat and Open Water Class Quality  0 Absent <0.1ha (0.247 acres)  1 Low 0.1 to <1ha (0.247 acres)  2 Moderate 1 to <4ha (2.47 to 9.88 acres)  3 High 4ha (9.88 acres) or more  Microtopography 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  Present in moderate or greater amounts	Table 1 ORAM long form for list. Add		threatened or endangered spp to		
Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent < 5% cover (0)  X Absent (1) Gd. Microtopography. Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh 1 Amphibian breeding pools  Category 1  Moderate 25-75% cover (-3) Itop presence of rare, threatened, or endangered spp  Mudflat and Open Water Class Quality  Mudflat and Open Water Class Quality  0 Absent <0.1ha (0.247 acres) 1 Low 0.1 to <1ha (0.247 to 2.47 acres) 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more  Microtopography 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  27 GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts	- · · · · · · · · · · · · · · · · · · ·				
Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  x Absent (1)  6d. Microtopography. Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 1 Amphibian breeding pools  Category 1  Category 1  Sparse 5-25% cover (-1)  Heth presence of rare, threatened, or endangered spp  Mudflat and Open Water Class Quality  0 Absent <0.1ha (0.247 acres) 1 Low 0.1 to <1ha (0.247 to 2.47 acres) 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more  Microtopography 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  27 GRAND TOTAL(max 100 pts)  1 the presence of rare, threatened, or endangered spp  Mudflat and Open Water Class Quality  0 Absent <0.247 acres) 1 Low 0.1 to <1ha (0.247 to 2.47 acres) 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more  Victoropography Cover Scale 0 Absent 1 Present in moderate amounts, but not of highest quality or in small amounts of highest quality  27 GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts					
Nearly absent <5% cover (0)  x Absent (1)  6d. Microtopography. Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 0 Standing dead >25cm (10in) dbh 1 Amphibian breeding pools  Mudflat and Open Water Class Quality 0 Absent <0.1ha (0.247 acres) 1 Low 0.1 to <1ha (0.247 to 2.47 acres) 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more  Microtopography 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  27 GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts	and the control of th				
6d. Microtopography. Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Absent  Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest quality  Category 1  GRAND TOTAL(max 100 pts)  O Absent < 1 Low 0.1 to <1ha (0.247 to 2.47 acres)  1 Low 0.1 to <1ha (0.247 to 9.88 acres)  Midcrotopography Cover Scale  O 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  27 GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts			are processed or rare, amendence, or one	anigorou opp	
Score all present using 0 to 3 scale.  0 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more  Microtopography Cover Scale  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  27 GRAND TOTAL(max 100 pts)  1 Low 0.1 to <1ha (0.247 to 2.47 acres) 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more  Microtopography 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	x Absent (1)			ty	
O Vegetated hummucks/tussucks   2 Moderate 1 to <4ha (2.47 to 9.88 acres)					
Category 1  Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more  Microtopography 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  27 GRAND TOTAL(max 100 pts)  3 High 4ha (9.88 acres) or more  Microtopography 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				`	
Standing dead >25cm (10in) dbh Amphibian breeding pools  Microtopography Cover Scale  Description Absent  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  Category 1  Category 1  GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts			`	)	
Amphibian breeding pools  Microtopography 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  27 GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts	, , , , , ,	Ü	riigii -iiia (o.oo aoroo) or more		
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  27 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts			Microtopography Cover Scale		
category 1  Category 1  GRAND TOTAL(max 100 pts)  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					
Category 1  2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality  27 GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts		1	*	common	
Category 1 quality or in small amounts of highest quality  27 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts		2		of highest	
27 GRAND TOTAL(max 100 pts)  3 Present in moderate or greater amounts	Category 1	_		-	
		3		-	
	· · · ·		and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 071

Date:

June 10, 2020

**Description:** 

PSS wetland

Category 1

Facing North



### Wetland 071

Date:

June 10, 2020

**Description:** 

PSS wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 071

Date:

June 10, 2020

**Description:** 

PSS wetland

Category 1

Facing South



### Wetland 071

Date:

June 10, 2020

**Description:** 

PSS wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 071

Date:

June 10, 2020

**Description:** 

PSS wetland

Category 1

Soil Pit



# Wetland 072

# WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Crooksville-North Newark 138 kV Transm	ission Line	_ City/Cou	nty: Licking	County	Sampling Date	e: <u>06/10</u>	/2020
Applicant/Owner: AEP		<u> </u>		State: OH	Sampling Poin	nt: w-aeh-2	200610-09
Investigator(s): AEH, SKM		Section, T	ownship, Ra	inge: S10. T18N. R16W	1		
Landform (hillside, terrace, etc.): depressional		!	Local relief (d	concave, convex, none): <u>r</u>	none		
Slope (%): 0 Lat: 39.930260		Long:	82.27863		Datum: NAD 83		
Soil Map Unit Name: Mentor silt loam, 2 to 6 percent sl	lopes (MnB)			NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical fo	or this time of	f year?	Yes x	No (If no, exp	lain in Remarks	.)	
Are Vegetation, Soil, or Hydrologys	significantly c	disturbed? F	\re "Normal (	Circumstances" present?	Yes x	No	_
Are Vegetation, Soil, or Hydrologyr			If needed, ex	cplain any answers in Ren	narks.)		
SUMMARY OF FINDINGS – Attach site ma			g point lo	cations, transects,	important fe	atures,	etc.
Hydrophytic Vegetation Present? Yes X No	o	Is the	Sampled A	rea			
	0		n a Wetland?		No		
Wetland Hydrology Present? Yes X No	)						
Remarks: Point in to Wetland 072 is within a depressional area t  VEGETATION – Use scientific names of pla		to the southwe	est outside of	f the survey area to wood	ed lot. Potential	ly isolated.	
·	Absolute	Dominant	Indicator				
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor			
1 2.				Number of Dominant S Are OBL, FACW, or FA	•	1	(A)
3.				Total Number of Domi			· (~)
4.				Across All Strata:	nanı əp <del>c</del> olcə	1	(B)
5.				Percent of Dominant S	Boecies That		``´
	:	=Total Cover		Are OBL, FACW, or F	•	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15')	)						
1				Prevalence Index wo		e e e e	
2. 3.				Total % Cover of:		iply by:	
				OBL species 75 FACW species 35		75 70	
4 5.				FAC species 0		0	•
J	<del></del> ,	=Total Cover		FACU species 10		40	•
Herb Stratum (Plot size: 5' )		•		UPL species 0		0	•
1. Typha angustifolia	70	Yes	OBL	Column Totals: 12		185	(B)
2. Impatiens capensis	20	No	FACW	Prevalence Index =		.54	'``
3. Agrostis gigantea	15	No	FACW				
4. Rosa multiflora	10	No	FACU	Hydrophytic Vegetat	ion Indicators:	_	
5. Juncus effusus	5	No	OBL	1 - Rapid Test for		getation	
6				X 2 - Dominance Te			
7				X 3 - Prevalence Ind			
8.				4 - Morphological	Adaptations¹ (Pr s or on a separa		porting
9.					•		
10	120 =	=Total Cover		Problematic Hydro			
Woody Vine Stratum (Plot size: 30')	120	- I Ulai Cuvei		<sup>1</sup> Indicators of hydric so be present, unless dis			nust
1.				·	uibou oi piosio	mano.	
2.				Hydrophytic Vegetation			
	<del></del> ;	=Total Cover		Present? Yes	X No		
Remarks: (Include photo numbers here or on a separ	rate sheet.)			_			$\overline{}$
Hydrophytic vegetation indicator present as Rapid Tes	,						

US Army Corps of Engineers

SOIL Sampling Point: <u>aeh-200610-</u>

Profile Desc	ription: (Describe	to the depth				tor or c	onfirm the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	С	PL	Loamy/Clayey	Prominent redox concentrations
<sup>1</sup> Type: C=Co	oncentration, D=Dep	letion, RM=F	Reduced Matrix, l	MS=Masl	ked Sand	d Grains		: PL=Pore Lining, M=Matrix.
Hydric Soil	ndicators:						Indicator	rs for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	-	rix (S4)			t Prairie Redox (A16)
	Histic Epipedon (A2) Sandy Redox (S5)						Manganese Masses (F12)	
Black His	` '		Stripped N	•	5)			Parent Material (F21)
	n Sulfide (A4)		Dark Surfa					Shallow Dark Surface (F22)
	Layers (A5)		Loamy Mu	-			Othe	r (Explain in Remarks)
2 cm Mu	` '		Loamy Gle	-				
	Below Dark Surface	e (A11)	X Depleted I				3	
	rk Surface (A12)		Redox Da		` '			rs of hydrophytic vegetation and
Sandy Mucky Mineral (S1)			Depleted I		` '			and hydrology must be present,
_	cky Peat or Peat (S3	<u>′</u>	X Redox De	pressions	s (F8)		unies	s disturbed or problematic.
	_ayer (if observed):							
Type:			_					
Depth (ir	iches):		<u> </u>				Hydric Soil Presen	t? Yes <u>X</u> No
Remarks:								
								s of Hydric Soils in the United States,
	2018. (https://www.n dicator.present.as.lo	-	_			–		ated in closed depression subject to
ponding.	diodioi procent do lo	W OINOMA/III	gii valae aepiete	a maanx ,	with roqu	ii ou i ou	ox concentrations, loc	ated in slosed depression subject to
LIVEROLO	CV							
HYDROLO								
_	drology Indicators:							
	ators (minimum of o	ne is require			(= -)			ry Indicators (minimum of two required)
x Surface	` '		Water-Sta					ace Soil Cracks (B6)
~	ter Table (A2)		Aquatic Fa	•	•			nage Patterns (B10)
Saturatio			True Aqua					Season Water Table (C2)
Water M			Hydrogen X Oxidized F					fish Burrows (C8)
	t Deposits (B2) osits (B3)		Presence	•		•	` ′	ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro		•	,		norphic Position (D2)
	osits (B5)		Thin Muck			100 0011	` '	Neutral Test (D5)
	on Visible on Aerial Ir	magery (B7)	Gauge or		-		<u> </u>	11000.00
	Vegetated Concave				` '			
Field Obser		•	<u> </u>				1	
Surface Water		s x	No	Depth (ir	nches):	4		
Water Table		s	No x	Depth (ir				
Saturation P		s	No x	Depth (ir			Wetland Hydrolog	gy Present? Yes X No
(includes cap				. (	′ =			
	corded Data (stream	gauge, mon	itoring well, aeria	al photos,	previous	s inspec	tions), if available:	
	·	-						
Remarks:								
	ary and secondary h Wise Run. No identi							e survey area and drians to the west
Gveritually to	VVISE INITI. NO INCIN	mable urairid	go icaluic coillit	JOHOIT LO	JOWNSHE	am itali	ui C3.	

Project/Site: Crooksville-North Newark 138 kV Transm	ssion Line	City/Co	unty: Licking	County	Sampling Date	: 06/10/2020
Applicant/Owner: AEP			<u>-</u>	State: OH	Sampling Point	w-aeh-200610-10
Investigator(s): AEH, SKM		Section,	Township, Ra	nge: S10. T18N. R10	 6W	
Landform (hillside, terrace, etc.): flat			Local relief (c	concave, convex, none	): none	
Slope (%): 0 Lat: 39.93025		Long:	-82.278655		Datum: NAD 83	
Soil Map Unit Name: Mentor silt loam, 2 to 6 percent sl	opes (MnB)			NWI clas	_	
Are climatic / hydrologic conditions on the site typical for			Yes x	No (If no, e	•	1
Are Vegetation , Soil , or Hydrology s		•		Circumstances" presen		, No
Are Vegetation, Soil, or Hydrologyr				plain any answers in F		
SUMMARY OF FINDINGS – Attach site ma			•		,	atures, etc.
Hydrophytic Vegetation Present? Yes No	) X	ls th	e Sampled A	rea		
	<u> </u>		in a Wetland?		No X	
Wetland Hydrology Present? Yes X						
Remarks: Upland 076 is point out located south of Wetland 072.  VEGETATION – Use scientific names of pla		nd point as h	ydrophytic vec	getation criteria not me	t.	
	Absolute	Dominant	Indicator			
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test w		
1				Number of Dominar Are OBL, FACW, or	•	0 (A)
3.				Total Number of Do		(/ (/
4.				Across All Strata:	minant opecies	2 (B)
5.				Percent of Dominar	nt Species That	
		=Total Cover		Are OBL, FACW, or	FAC:	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )						
1.				Prevalence Index		ala bar
2. 3.				Total % Cover OBL species	15 x 1 =	oly by: 15
4.				FACW species	0 x2=	0
5.				FAC species	10 x 3 =	30
		=Total Cover		FACU species	30 x 4 =	120
Herb Stratum (Plot size: 5' )				UPL species	30 x 5 =	150
1. Glycine max	30	Yes	UPL	Column Totals:	85 (A)	315 (B)
2. Cirsium arvense	20	Yes	FACU	Prevalence Index	x = B/A = 3.	71
3. Typha angustifolia	15	No	OBL			
4. Rosa multiflora	10	No No	FACU	Hydrophytic Veget		-4-4:
5. Toxicodendron radicans 6.	10	No	FAC	2 - Dominance	or Hydrophytic Veg	etation
7				3 - Prevalence		
8.					al Adaptations <sup>1</sup> (Pro	ovide supportina
9.					arks or on a separat	
10				Problematic Hy	drophytic Vegetatio	n¹ (Explain)
Woody Vine Stratum (Plot size: 30' )	85	=Total Cover	. ——	<sup>1</sup> Indicators of hydric be present, unless of		
1.				Hydrophytic		
2.				Vegetation		
		=Total Cover		Present? Ye	s No_>	<u>&lt; _</u>
Remarks: (Include photo numbers here or on a separ No hydrophytic vegetation indicators present.	ate sheet.)					

Upland 076

SOIL Sampling Point: <u>aeh-200610-</u>

	cription: (Describe	to the depth				tor or c	onfirm the absence	of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 4/2	95	10YR 6/6	5	С	PL	Loamy/Clayey	Prominent redox concentrations
								_
-								
<sup>1</sup> Type: C=C	oncentration, D=Dep	etion, RM=F	Reduced Matrix, I	์ MS=Mas	ked Sand	d Grains.	<sup>2</sup> Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicato	ors for Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gle	yed Mat	rix (S4)		Coa	st Prairie Redox (A16)
Histic E	oipedon (A2)		Sandy Red	dox (S5)			Iron	-Manganese Masses (F12)
Black Hi	stic (A3)		Stripped M	•	6)		Red	Parent Material (F21)
	en Sulfide (A4)		Dark Surfa				Very	/ Shallow Dark Surface (F22)
Stratified	d Layers (A5)		Loamy Mu	-			Othe	er (Explain in Remarks)
	ıck (A10)		Loamy Gle	-				
	d Below Dark Surface	(A11)	X Depleted I		•		2	
	ark Surface (A12)		Redox Da		` '			ors of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted [		` '			and hydrology must be present,
5 cm Mu	ıcky Peat or Peat (S3	)	Redox De	pression	s (F8)		unle	ess disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (i	nches):		_				Hydric Soil Preser	nt? Yes X No
Remarks:								
								rs of Hydric Soils in the United States,
	2018. (https://www.n							
Hydric soil if	ndicator present as lo	w cnroma/ni	gn value deplete	a matrix	with requ	iirea read	ox concentrations.	
HYDROLO	)GY							
Wetland Hy	drology Indicators:							
	cators (minimum of o	ne is require						ary Indicators (minimum of two required)
	Water (A1)		Water-Sta					ace Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa	•	•			nage Patterns (B10)
Saturation			True Aqua					Season Water Table (C2)
	larks (B1)		Hydrogen					yfish Burrows (C8)
	nt Deposits (B2)		X Oxidized F	•		0	` '	uration Visible on Aerial Imagery (C9)
	posits (B3)		Presence		,	,		nted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro			lied Solis	` '	morphic Position (D2)
	oosits (B5)	magam, (D7)	Thin Muck		` '		FAC	c-Neutral Test (D5)
	on Visible on Aerial Ir		Gauge or ' Other (Exp		, ,			
		Surface (Do	Other (Exp	nain in R	emarks)			
Field Obser			No. v	Danth (i				
	ter Present? Ye			Depth (ii				
Water Table		s			nches): _		Watland Hydrold	any Present? Yes Y No
Saturation F		<u> </u>	No <u>x</u>	Deptii (ii	nches):		Wetland Hydrolo	ogy Present? Yes X No No
	pillary fringe) corded Data (stream	dalide mon	itoring well serio	l nhotos	nrevious	s inenact	ions) if available:	
Pegoline Me	oorded Data (Stiedill	gauge, mon	itoring well, aeria	ii piiotos,	, provious	o mopeci	.ionoj, ii avaliabie.	
Remarks:								
	hydrology indicator p	resent. Poir	t out located off	edge of a	ag field.			

Site: Crooksvill	e-North Newark 138 kV Transmission L	ine Rebuild Project	ct <b>Date:</b> June 10, 2020			
Wetland: w	-aeh-20200610-09		Rater:	AH, SM		
0 0 Subtotal Points	Metric 1. Wetland Area (size). (ma  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2h  10 to <25 acres (4 to <10.1ha) (  3 to <10 acres (1.2 to <4ha) (3 p  0.3 to <3 acres (0.12 to <1.2ha)  0.1 to <0.3 acres (0.04 to <0.12l  x <0.1 acres (0.04ha) (0 pts)	a) (5 pts) 4 pts) ots) (2pts)		·		
1 1 Subtotal Points	Metric 2. Upland buffers and surro  2a. Calculate average buffer width (select one  WIDE. Buffers average 50m (1'  MEDIUM. Buffers average 25m  NARROW. Buffers average 10:  x VERY NARROW. Buffers average  2b. Intensity of surrounding land use (select of the select of	e, do not double check) 64ft) or more around wett 1 to <50m (82 to <164ft) a 1 m to <25m (32ft to <82ft) age <10m (<32ft) around 1 me or double check & ave 1 are forest, prairie, savanna 1 ubland, young second gratial, fenced pasture, park	and perimeter (i round wetland p around wetland wetland perimeterage) h, wildlife area, o owth forest. (5)	perimeter (4) I perimeter (1) er (0) etc. (7) Ilage, new fallow field. (3)		
19 18 Subtotal Points	Metric 3. Hydrology. (max 30 pts)  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  X Seasonal/Intermittent surface w Perennial surface water (lake or  3c. Maximum water depth. Select only 1.  >0.7 (27.6in) (3)  X 0.4 to 0.7m (15.7 to 27.6in) (2)  <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime (select one or double check & average None or none apparent (12)  X Recovered (7)  Recovering (3)  Recent or no recovery (1)	ater (3) stream) (5)  3	b. Connectivity.  100 y Betwee X Part o X Part o  d. Duration inun (select one o X Regul Seaso Seaso	Score all that apply. ear floodplain (1) een stream/lake and other human use (1) of wetland/upland (e.g. forest), complex (1) of riparian or upland corridor (1)  dation/saturation. or double check & average) to permanently inundated/saturated (4) arrly inundated/saturated (3) enally inundated (2) enally saturated in upper 30cm (12in) (1)  isturbances observed  point source (nonstormwater)  filling/grading  road bed/RR track dredging		
34 15 Subtotal Points	Metric 4. Habitat Alteration and Do  4a. Substrate disturbance. Score one or dou  None or none apparent (4)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select one.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  X Fair (3)  Poor to fair (2)  Poor (1)	ble check and average.	c. Habitat altera  X None Recov Recov Recer ances observ	ation. Score one or double check and average. or none apparent (9) vered (6) vering (3) nt or no recovery (1)		

ORAM v. 5.0 Field Form Quanti				
Site: Crooksville-	-North Newark	138 kV Transmission Line Rebuil	Date:	June 10, 2020
Wetland: w-a	eh-20200610-0	09	Rater:	AH, SM
				· · · · · · · · · · · · · · · · · · ·
34 subtotal first pa	ane			
o i Subtotal ili st pi	age			
34 0	Matric 5 Sn	ecial Wetlands. (max 10 pts.)		
	-	, , ,		
Subtotal Points	Check all that ap	ply and score as indicated		
		Bog (10 pts)		
		Fen (10 pts)		
		Old Growth Forest (10 pts)		
		Mature forested wetland (5 pts)	a Andrea Allera de La La Calenda	(40
		Lake Erie coastal/tributary wetland-unre	-	
		Lake Erie coastal/tributary wetland-restr	, ,	y (5 pts)
		Lake Plain Sand Prairies (Oak Openings	s) (10 pts)	
		Relict Wet Prairies (10 pts)		
		Known occurrence state/federal threater	_	
		Significant migatory songbird/waterfowl		
		Category 1 Wetland. See Question 1 of	Qualitative Ra	ating. (-10 pts)
07	M ( ) 0 DI			
37 3		ant Communities, interspersion	, microtop	ograpny. (max 20 pts.)
Subtotal Points	•	getation Communities		
	Score all present	t using 0 to 3 scale	Vegetatio	n Community Cover Scale
		Aquatic bed	0	Absent or comprises <0.1 ha (0.2471 acres) contiguous area
	2	Emergent		, , ,
		Shrub		Present and either comprises small part of wetland's vegetation and is
		Forest	1	of moderate quality, or comprises a significant part but is of low quality
		Mudflats		1 22 1 1 7
		Open water		Present and either comprises significant part of wetland's vegetation
		Other (list)	2	and is of moderate quality or comprises a small part and is of high
				quality
	6b. Horizontal (p	olan view) interspersion	3	Present and comprises significant part, or more, of wetland's vegetation
	Select only one	_		and is of high quality
		High (5)		
		Moderately high (4)	Narrative	Description of Vegetation Quality
		Moderate (3)	low	Low spp diversity and/or predominance of nonnative or disturbance
		Moderately low (2)	IOW	tolerant native species
		Low (1)		Native spp are dominant component of the vegetation, although
	Х	None (0)	moderate	nonnative and/or disturbance tolerant native spp can also be present,
			moderate	and species diversity moderate to moderately high, but generally w/o
	6c. Coverage of			presence of rare threatened or endangered spp
		ORAM long form for list.		A predominance of native species, with nonnative spp and/or
	Add or deduct po	,	high	disturbance tolerant native spp absent or virtually absent, and high spp
		Extensive >75 % cover (-5)	9	diversity and often, but not always, the presence of rare, threatened, or
	х	Moderate 25-75% cover (-3)		endangered spp
		Sparse 5-25% cover (-1)		
		Nearly Absent <5% cover (0)	Mudflat a	nd Open Water Class Quality
		Absent (1)	0	Absent <0.1 ha (0.2471 acres)
			1	Low 0.1 ha to <1 ha (0.2471 acres to 2.47 acres)
			2	Moderate 1 ha to <4 ha (2.47 acres 9.88 acres)
	6d. Microtopogra	a <u>phy</u>	3	High 4 ha (9.88 acres) or more
	Score all present	using 0 to 3 scale		
	2	Vegetated hummocks/tussocks	Microtopo	ography Cover Scale
	0	Coarse woody debris >15 cm (6")	0	Absent
	0	Standing dead > 25 cm (10") dbh	1	Present very small amounts or if more common of marginal quality
	2	Amphibian breeding pools	'	ir resent very small amounts of it more common of marginal quality
			2	Present in moderate amounts, but not of highest quality or in small
				amounts of highest quality
			2	Present in moderate or greater amounts and of highest quality
			3	I resent in moderate or greater amounts and or nightest quality



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 072

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing North



### Wetland 072

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 072

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing South



### Wetland 072

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Facing West





# PHOTOGRAPHIC RECORD

**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 072

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 2

Soil Pit



# Wetland 073

Project/Site: Crooksville-North Newark 138 kV Transm	nission Line	City/Cou	nty: Licking	County	Sampling Date	e: <u>06/1</u> 0	0/2020
Applicant/Owner: AEP				State: OH	Sampling Poin	nt: w-aeh-	-200610-05
Investigator(s): AEH, SKM		Section, T	ownship, Ra	nge: S10. T18N. R16W	!		
Landform (hillside, terrace, etc.): flat		!	Local relief (c	concave, convex, none): r	none		
Slope (%): 0 Lat: 39.938128		Long:	82.28507		Datum: NAD 83		
Soil Map Unit Name: Killbuck silt loam, frequently floor	ded (Kk)			NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical for	or this time o	f year?	Yes x	No (If no, exp	lain in Remarks	.)	
Are Vegetation, Soil, or Hydrologys	significantly (	•		Circumstances" present?			
Are Vegetation, Soil, or Hydrology				xplain any answers in Ren			_
SUMMARY OF FINDINGS – Attach site ma					•	atures	, etc.
Hydrophytic Vegetation Present? Yes X No	0	Is the	Sampled A	rea			
	0		n a Wetland?		No		
Wetland Hydrology Present? Yes X No							
Remarks: Point in to Wetland 073 is located along a hillslope bo floodplain of perennial Stream 076 (Wise Run).		roadway. The	wetland exte	nds outside the survey co	orridor and is wit	thin the 10	วิ0-year
<b>VEGETATION</b> – Use scientific names of pla	Absolute	Dominant	Indicator	T			
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test work	ksheet:		
1				Number of Dominant S	•		
2.				Are OBL, FACW, or FA	AC:	3	_(A)
3.				Total Number of Domi	nant Species	_	
4				Across All Strata:	_	3	_(B)
5		=Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	100.0%	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	)						_`
1				Prevalence Index wo	rksheet:		
2.				Total % Cover of:		iply by:	_
3.				OBL species 30		30	-
4				FACW species 85		170	-
5		=Total Cover		FACIL appeirs 0		9	-
<u>Herb Stratum</u> (Plot size: 5' )		= Fotal Cover		FACU species 0 UPL species 0		0	-
1. Phalaris arundinacea	45	Yes	FACW	Column Totals: 118		209	(B)
2. Carex annectens	30	Yes	FACW	Prevalence Index =		.77	<b>-</b> (D)
3. Eleocharis palustris	25	Yes	OBL	T TOVAICHEE	- 0/11	.,,	-
Lysimachia nummularia	10	No	FACW	Hydrophytic Vegetati	ion Indicators:		
5. Juncus effusus	5	No	OBL	1 - Rapid Test for			
6. Vernonia gigantea	3	No	FAC	X 2 - Dominance Tes		-	
7.				X 3 - Prevalence Ind			
8				4 - Morphological			
9				data in Remarks			
10				Problematic Hydro			-
Woody Vine Stratum (Plot size: 30'	) 118	=Total Cover		<sup>1</sup> Indicators of hydric so be present, unless dist			must
1.	<u></u>			Hydrophytic			
2.				Vegetation			
		=Total Cover		Present? Yes_	X No		
Remarks: (Include photo numbers here or on a separ Hydrophytic vegetation indicator present as rapid test	•						
							ĺ

Wetland 073

SOIL Sampling Point: <u>aeh-200610-</u>

	• •	to the dep				tor or c	onfirm the absence of	of indicators.)			
Depth	Matrix			x Featur							
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-6	10YR 5/1	90	10YR 6/6	10	С	PL	Loamy/Clayey	Prominent redox concentrations			
6-18	10YR 5/1	60	10YR 6/6	40	С	PL	Loamy/Clayey	Prominent redox concentrations			
	-		_								
	<u> </u>										
1 <sub>Type: C=C</sub>	Concentration, D=Dep	otion DM-	-Paduaad Matrix I		kod Sono	Croine	<sup>2</sup> l coation	: PL=Pore Lining, M=Matrix.			
	I Indicators:	etion, ixivi-	-Neduced Matrix, I	vio-ivias	Neu San	Giailis		's for Problematic Hydric Soils <sup>3</sup> :			
Histoso			Sandy Gle	eved Mat	rix (S4)			t Prairie Redox (A16)			
l <del></del>	pipedon (A2)		Sandy Re	-				Manganese Masses (F12)			
	Black Histic (A3)  Stripped Matrix (S6)							Parent Material (F21)			
	en Sulfide (A4)		Dark Surfa	•	,			Shallow Dark Surface (F22)			
	d Layers (A5)		Loamy Mu		eral (F1)			r (Explain in Remarks)			
	uck (A10)		Loamy Gle	-				,			
Deplete	ed Below Dark Surface	(A11)	X Depleted I	-							
Thick D	ark Surface (A12)		Redox Da	rk Surfac	ce (F6)		<sup>3</sup> Indicator	s of hydrophytic vegetation and			
Sandy I	Mucky Mineral (S1)		Depleted I	Dark Sur	face (F7)		wetla	nd hydrology must be present,			
5 cm M	x Redox De	pression	s (F8)		unless disturbed or problematic.						
Restrictive	Layer (if observed):										
Type:											
Depth (	inches):						Hydric Soil Present	? Yes X No			
Remarks:											
								s of Hydric Soils in the United States,			
	, 2018. (https://www.n										
Hydric soil i	ndicator present as lo	w chroma/i	nigh value deplete	d matrix	ın a depr	ession s	subject to ponding.				
HYDROL	OGY										
Wetland Hy	ydrology Indicators:										
-	icators (minimum of o	ne is requii	red; check all that	apply)			<u>Secondar</u>	ry Indicators (minimum of two required)			
	Water (A1)		Water-Sta					ice Soil Cracks (B6)			
X High W	ater Table (A2)		Aquatic Fa		•		x Drainage Patterns (B10)				
X Saturati	, ,		True Aqua				Dry-Season Water Table (C2)				
	Marks (B1)		Hydrogen		, ,			fish Burrows (C8)			
	nt Deposits (B2)		X Oxidized F			-		ration Visible on Aerial Imagery (C9)			
	posits (B3)		Presence			-		ted or Stressed Plants (D1)			
	at or Crust (B4)		Recent Iro			ied Soil:	` -	norphic Position (D2)			
	posits (B5) ion Visible on Aerial Ir	nagory (R7	Thin Muck () Gauge or		` '		<u>X</u> FAC-	Neutral Test (D5)			
	y Vegetated Concave		<i>,</i>		` '						
Field Obse	, ,	Odriace (E	Other (EX	Jani III I	(Ciriains)		1				
	iter Present? Ye	s	No x	Depth (i	nches).						
Water Table				Depth (i	′ –	5					
Saturation F				Depth (i	′ –	3	Wetland Hydrolog	gy Present? Yes X No			
	apillary fringe)			, (	′ –						
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks:					=						
	,	, ,,	•	•		•		precipitation and surface runoff in hat flows south to Jonathan Creek that			
-	o Muskingum River. a	-	poreninal Stream	010 (VVIS	o ruii) li	iai iiUW	5 South to valley INUIT	inat nows south to soliatilal Oleck that			

# Upland 077

Project/Site: Crooksville-North Newark 138 kV Transm	nission Line	_ City/Cou	inty: Licking	County	Sampling Dat	e: <u>06/10/2020</u>
Applicant/Owner: AEP				State: OH	Sampling Poir	nt: upl-aeh-200610-05
Investigator(s): AEH, SKM		Section, 7	ownship, Rar	nge: S10. T18N. R1	6W	
Landform (hillside, terrace, etc.): flat			Local relief (c	concave, convex, none	e): none	
Slope (%): 0 Lat: 39.938198		Long: -	82.285004		Datum: NAD 83	
Soil Map Unit Name: Killbuck silt loam, frequently flood	ded (Kk)			NWI clas	ssification: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time o	f year?	Yes x	No (If no,	explain in Remarks	(.)
Are Vegetation, Soil, or Hydrologys	significantly o	disturbed?	Are "Normal C	Circumstances" preser		
Are Vegetation, Soil, or Hydrology				plain any answers in I		
SUMMARY OF FINDINGS – Attach site ma			,		,	eatures, etc.
Hydrophytic Vegetation Present? Yes No	o X	Is the	Sampled Ar	roa		
	0		n a Wetland?		No X	
	0					
Remarks:						
Upland 077 is point out located north of Wetland 073 met.	near planted	crops. Not a	wetland point	t as hydrophytic veget	tation and hydrolog	y criteria not
VEGETATION – Use scientific names of pla	nts.					
	Absolute	Dominant	Indicator	<u> </u>		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test v	worksheet:	
1.				Number of Domina	•	ο (Δ)
2. 3.				Are OBL, FACW, o		0 (A)
4.				Total Number of Do Across All Strata:	ominant Species	2 (B)
5.						(D)
J		=Total Cover		Percent of Dominal Are OBL, FACW, o	•	0.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	)	10101 0010		7.10 002,		0.070 (7.02)
1	<u></u>			Prevalence Index	worksheet:	
2.				Total % Cover	r of: Mult	iply by:
3.				OBL species	0 x 1 =	0
4.				FACW species	0 x 2 =	0
5				FAC species	15 x 3 =	45
		=Total Cover		FACU species	45 x 4 =	180
Herb Stratum (Plot size: 5' )			,	UPL species	20 x 5 =	100
1. Schedonorus arundinaceus	30	Yes	FACU	Column Totals:	80 (A)	325 (B)
2. Glycine max	20	Yes	UPL	Prevalence Inde	ex = B/A =4	.06
3. Poa pratensis	10	No No	FACU	Hydrophytic Vege	tation Indicators:	
Allium cernuum     Juncus tenuis	5	No No	FACU FAC		for Hydrophytic Ve	
6. Trifolium repens	5	No	FACU	2 - Dominance		getation
7.		110	1700	3 - Prevalence		
8.					cal Adaptations <sup>1</sup> (P	rovide supporting
9.					arks or on a separa	
10.				Problematic H	ydrophytic Vegetati	on <sup>1</sup> (Explain)
	80	=Total Cover		<sup>1</sup> Indicators of hydric		
Woody Vine Stratum (Plot size: 30'	)			be present, unless		
1.				Hydrophytic		
2				Vegetation		
		=Total Cover		Present? Ye	es No	X
Remarks: (Include photo numbers here or on a separ	rate sheet.)					
No hydrophytic vegetation indicators present.						

Upland 077

SOIL Sampling Point: <u>|-aeh-200610</u>

		o the depth				itor or c	confirm the absence	of indicators.)			
Depth	Matrix			Featur		. 2					
(inches)	Color (moist)	<u>%</u> (	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks			
0-18	10YR 4/1	95	10YR 6/6	5	С	PL	Loamy/Clayey	Prominent redox concentrations			
	_										
			'								
		— —									
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=Re	educed Matrix, M	IS=Mas	ked Sand	d Grains		n: PL=Pore Lining, M=Matrix.			
Hydric Soil I	ndicators:							rs for Problematic Hydric Soils <sup>3</sup> :			
Histosol	` '		Sandy Gley		rix (S4)			st Prairie Redox (A16)			
	ipedon (A2)		Sandy Red					Manganese Masses (F12)			
Black His	` '		Stripped Ma	,	6)			Parent Material (F21)			
	n Sulfide (A4)		Dark Surface					Shallow Dark Surface (F22)			
	Layers (A5)		Loamy Muc	-			Othe	er (Explain in Remarks)			
2 cm Mu	, ,		Loamy Gley								
	Below Dark Surface	(A11)	X Depleted M	•	•		3				
	rk Surface (A12)		Redox Dark		` '			rs of hydrophytic vegetation and			
Sandy Mucky Mineral (S1)			Depleted D					and hydrology must be present,			
5 cm Mucky Peat or Peat (S3)Redox Depressions (F8)						unles	ss disturbed or problematic.				
Restrictive L	_ayer (if observed):										
Type:			_								
Depth (in	ches):		=				Hydric Soil Presen	t? Yes X No			
Remarks:											
								s of Hydric Soils in the United States,			
	2018. (https://www.ni										
Hydric soil in	dicator present as lov	w chroma/nig	n value depleted	matrix	with requ	iirea rea	lox concentrations.				
HYDROLO	CV										
_	drology Indicators:										
	ators (minimum of o	ne is required						ry Indicators (minimum of two required)			
	Nater (A1)		Water-Stair		, ,			ace Soil Cracks (B6)			
	ter Table (A2)		Aquatic Fat	-			Drainage Patterns (B10)				
Saturatio			True Aquat				Dry-Season Water Table (C2)				
Water Ma			Hydrogen S					fish Burrows (C8)			
	t Deposits (B2)		X Oxidized RI Presence o	•		•		ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)			
	osits (B3) t or Crust (B4)		Recent Iron		,	•		morphic Position (D2)			
	osits (B5)		Thin Muck			ileu Soil		-Neutral Test (D5)			
	on Visible on Aerial In	nagery (R7)	Gauge or V					-Neutral Test (D3)			
	Vegetated Concave	0 , ,									
Field Observ			Other (Expi	<u> </u>	erriarito)		1				
Surface Water		2	No x [	Denth (i	nches):						
Water Table					nches):						
Saturation Pr				-	nches):		Wetland Hydrolo	gy Present? Yes X No			
(includes cap		<b></b>	<u> </u>	opui (ii	_		Troubana riyaroro	g) 11000m1 100 <u>-x</u> 110			
_,	corded Data (stream	gauge, monit	oring well, aerial	photos	. previous	s inspec	tions). if available				
	Data (0110dill	J. J	g 77011, GOITAI	,	, p. 5 11000	opoo	,, avanabio.				
Remarks:											
One primary	hydrology indicator p	resent. Point	out located adja	cent to	mapped	100-yea	ar floodplain of Wise R	un.			

Site: Croo	ksville- Newa	ırk Project	Rater(s): Audrey Har	nner	Date:	6/10/2020
		-		Field Id:		
	2 2	Metric 1. Wetla	nd Area (size).	w-aeh-20200610-05		
max 6 pts	subtotal	Select one size class a >50 acres (>20.2ha) (6) 25 to <50 acres (10.1 to 10 to <25 acres (4 to <1 3 to <10 acres (1.2 to <4 0.3 to <3 acres (0.04 to <0.1 acres (0.04 to <0.1 acres (0.04ha) (0 p	ots) <20.2ha) (5 pts) 0.1ha) (4 pts) tha) (3 pts) <1.2ha) (2pts) o <0.12ha) (1 pt)	acres		
	3 5	Metric 2. Uplan	d buffers and surrou	nding land use.		
max 14 pts.	subtotal	WIDE. Buffers average: MEDIUM. Buffers avera NARROW. Buffers aver VERY NARROW. Buffer  2b. Intensity of surrou VERY LOW. 2nd growth LOW. Old field (>10 yea MODERATELY HIGH. F	50m (164ft) or more around wetlan ge 25m to <50m (82 to <164ft) aro age 10m to <25m (32ft to <82ft) ar se average <10m (<32ft) around with the second of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced pasture, park, consideration of the second grow Residential, fenced grow Residential,	und wetland perimeter (4) ound wetland perimeter (1) etland perimeter (0)  uble check and average. wildlife area, etc. (7)  wth forest. (5) conservation tillage, new fallow field. (3)		
	)   0 0   45 0		open pasture, row cropping, minin	g, construction. (1)		
max 30 pts.	subtotal	Seasonal/Intermittent su Perennial surface water 3c. Maximum water de >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6 <0.4m (<15.7in) (1) 3e. Modifications to na None or none apparent ( Recovered (7)	Score all that apply. )  Inface water (3) (lake or stream) (5) pth. Select one. Sin) (2)  Itural hydrologic regime. Score of (12)	x tile x fill dike x rower x dı	uman use (1) complex (1) (1) ion. Score one or dbl check aturated (4) cm (12in) (1)	<b>c</b> .
	7.5 22.5	Metric 4. Habita	at Alteration and Deve	elopment.		
max 20 pts.	_	None or none apparent ( Recovered (3) Recovering (2) Recent or no recovery (* 4b. Habitat developme Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. \$ None or none apparent (	1) nt. Select only one and assign so Score one or double check and a	verage.  Check all disturbances observed  x mowing x st grazing hx clearcutting selective cutting dx x woody debris removal x fa	nrub/sapling removal erbaceous/aquatic bed remov edimentation redging urming utrient enrichment	<i>v</i> al
	22.5			<del>_</del>		

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: Crooksville- Newark Project Rater(s): Audrey Hann	ner		Date:	6/10/2020
		Field Id:		
22.5		w-aeh-20200610-05		
subtotal this page				
0 22.5 Metric 5. Special Wetlands.				
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-unrestricted hydrology (10)	0)			
Lake Erie coastal/tributary wetland-restricted hydrology (5)	٠,			
Lake Plain Sand Prairies (Oak Openings) (10)				
Relict Wet Praires (10)				
Known occurrence state/federal threatened or endangered sp		es (10)		
Significant migratory songbird/water fowl habitat or usage (10 Category 1 Wetland. See Question 5 Qualitative Rating (-10)	,			
	_	on miorotonography		
0 22.5 Metric 6. Plant communities, interspe	er Si			
max 20pts. subtotal <b>6a. Wetland Vegetation Communities.</b>		Vegetation Community Cove		
Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ad		
Aquatic bed  1 Emergent	1	Present and either comprises small par vegetation and is of moderate quality, or		
Shrub		significant part but is of low quality	o comprises a	
Forest	2	Present and either comprises significant	t part of wetland's 2	
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 3	
6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality		
High (5)		Narrative Description of Vegetation (	Quality	
Moderately high(4)		Low spp diversity and/or predominance	of nonnative or low	
Moderate (3)		disturbance tolerant native species		
Moderately low (2)		Native spp are dominant component of	-	
Low (1) x None (0)		although nonnative and/or disturbance can also be present, and species divers		
6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o prese	•	
Table 1 ORAM long form for list. Add		threatened or endangered spp to		
or deduct points for coverage		A predominance of native species, with		
Extensive >75% cover (-5)		and/or disturbance tolerant native spp a	•	
x Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity and ofter the presence of rare, threatened, or end	•	
Nearly absent <5% cover (0)		are presented of rare, uncateriou, or one	aungorou opp	
Absent (1)		Mudflat and Open Water Class Quality	ty	
6d. Microtopography.		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)	`	
0 Vegetated hummucks/tussucks 1 Coarse woody debris >15cm (6in)		Moderate 1 to <4ha (2.47 to 9.88 acres High 4ha (9.88 acres) or more	)	
0 Standing dead >25cm (10in) dbh	5	Thigh that (3.00 acres) of more		
1 Amphibian breeding pools		Microtopography Cover Scale		
	0	Absent		
	1	Present very small amounts or if more	common	
-	2	of marginal quality  Present in moderate amounts, but not o	of highest	
Category 1	_	quality or in small amounts of highest q	•	
22.5 GRAND TOTAL(max 100 pts)	3	Present in moderate or greater amounts		
		and of highest quality		
		J 1 -7		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

# Wetland 073

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 073

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

# Wetland 073

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 073

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 073

Date:

June 10, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



# Wetland 074a

Project/Site: Crooksville-North Newark 138 kV Transm	nission Line	City/Cou	unty: Licking	County	Sampling Date:	06/10/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-aeh-200610-01
Investigator(s): AEH, SKM		Section, 7	 Гownship, Rar	nge: S10. T18N. R16W	l	
Landform (hillside, terrace, etc.): swale			Local relief (c	concave, convex, none):	none	
Slope (%): 0 Lat: 39.939744		Long: -	-82.28606		Datum: NAD 83	
Soil Map Unit Name: Melvin silt loam, 0 to 3 percent sl	opes, freque	ntly flooded (N	Me)	NWI classif	ication: R5UBH	
Are climatic / hydrologic conditions on the site typical for	or this time o	f year?	Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrologys	significantly o	disturbed? /	Are "Normal C	Circumstances" present?		No
Are Vegetation, Soil, or Hydrology	naturally prof	blematic? (	(If needed, ex	plain any answers in Rer	marks.)	
SUMMARY OF FINDINGS – Attach site ma			ng point lo	cations, transects,	important fea	ıtures, etc.
Hydrophytic Vegetation Present? Yes X No	0	Is the	e Sampled Ar	rea		
	0		n a Wetland?		No	
Wetland Hydrology Present? Yes X No	o <u> </u>					
Remarks:						
Wetland 074a is point in for the PFO portion of the PE abutting perennial Stream 076 (Wise Run), located in					outside of the surv	ey corridor,
. , ,		JIAIIIO C. C.	eam at too s.	slope.		
<b>VEGETATION</b> – Use scientific names of pla	Absolute	Dominant	Indicator	Г		
<u>Tree Stratum</u> (Plot size: 30' )	% Cover	Species?	Status	Dominance Test wor	ksheet:	
1. Salix nigra	45	Yes	OBL	Number of Dominant S	Species That	
2. Ulmus rubra	10	No	FAC	Are OBL, FACW, or F.	AC:	5 (A)
3. Platanus occidentalis	10	No	FACW	Total Number of Domi	inant Species	
4				Across All Strata:		5 (B)
5				Percent of Dominant S	•	
O " (Oharda Oharda ) (Diah siran 45)	, 65	=Total Cover		Are OBL, FACW, or F.	AC: <u>1</u>	00.0% (A/B)
Sapling/Shrub Stratum (Plot size: 15'	)			S Server Index		
1				Prevalence Index wo		lu bu
3				Total % Cover of OBL species 45		45
3				FACW species 55		110
5.				FAC species 25		75
J		=Total Cover		FACU species 2		8
Herb Stratum (Plot size: 5' )		1000		UPL species 0		0
Phalaris arundinacea	15	Yes	FACW	Column Totals: 12		238 (B)
2. Lysimachia nummularia	15	Yes	FACW	Prevalence Index :		
3. Impatiens capensis	10	Yes	FACW			
4. Poa pratensis	10	Yes	FAC	Hydrophytic Vegetat	ion Indicators:	
5. Toxicodendron radicans	5	No	FAC	1 - Rapid Test for	Hydrophytic Vege	etation
6. Solidago gigantea	5	No	FACW	X 2 - Dominance Te	est is >50%	
7. Parthenocissus quinquefolia	2	No	FACU	X 3 - Prevalence Inc		
8				4 - Morphological		
9					s or on a separate	•
10				Problematic Hydro		` ' '
	62	=Total Cover		<sup>1</sup> Indicators of hydric so		
Woody Vine Stratum (Plot size: 30'	)			be present, unless dis	turbed or problem	atic.
1				Hydrophytic		
2		T-1-1 O-11-1		Vegetation	Y Na	
		=Total Cover		Present? Yes	<u> </u>	_
Remarks: (Include photo numbers here or on a separ	,	,				
Hydrophytic vegetation indicator present as dominanc	¿e test > 5070	).				

SOIL Sampling Point: <u>aeh-200610-</u>

Profile Desc Depth	ription: (Describe to Matrix	to the dept		<b>ument th</b> x Featur		ator or c	confirm the absence of	of indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-18	10YR 2/1	85	7.5YR 6/8	15	C	PL	Loamy/Clayey	Prominent redox concentrations		
								-		
<sup>1</sup> Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, N	<u>——</u> ИS=Mas	ked San	d Grains	. <sup>2</sup> Location	: PL=Pore Lining, M=Matrix.		
Hydric Soil I		,	,					s for Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1)		Sandy Gle	yed Mat	rix (S4)		? Coas	t Prairie Redox (A16)		
Histic Ep	ipedon (A2)		Sandy Red	dox (S5)			Iron-N	Manganese Masses (F12)		
Black His	stic (A3)		Stripped M	latrix (S6	6)		Red F	Parent Material (F21)		
Hydrogei	n Sulfide (A4)		Dark Surfa	ice (S7)			Very	Shallow Dark Surface (F22)		
Stratified	Layers (A5)		Loamy Mu	cky Mine	eral (F1)		Other	(Explain in Remarks)		
2 cm Mu	ck (A10)		Loamy Gle	-						
	Below Dark Surface	(A11)	Depleted N	,	,					
	rk Surface (A12)		X Redox Dar		` '			s of hydrophytic vegetation and		
	ucky Mineral (S1)		Depleted [			)	wetland hydrology must be present,			
5 cm Mu	cky Peat or Peat (S3	)	? Redox De	oression	s (F8)		unles	s disturbed or problematic.		
Restrictive L	ayer (if observed):									
Type:										
Depth (in	ches):						Hydric Soil Present	? Yes <u>X</u> No		
	2018. (https://www.n dicator present as lo						<sub>.</sub> 053171.pdf) trations, not in a close	d depression.		
HYDROLO	GY									
Wetland Hyd	drology Indicators:									
_	ators (minimum of o	ne is reauir	ed: check all that a	(vlage			Secondar	y Indicators (minimum of two required		
-	Nater (A1)	•	Water-Stai		ves (B9)			ce Soil Cracks (B6)		
High Wat	ter Table (A2)		Aquatic Fa				 Drain	age Patterns (B10)		
Saturatio	n (A3)		True Aqua	tic Plant	s (B14)		Dry-S	Season Water Table (C2)		
Water Ma	arks (B1)		Hydrogen	Sulfide (	Odor (C1	)	Crayf	ish Burrows (C8)		
Sedimen	t Deposits (B2)		X Oxidized F	Rhizosph	eres on I	Living Ro	oots (C3)Satur	ation Visible on Aerial Imagery (C9)		
x Drift Dep	osits (B3)		Presence					ed or Stressed Plants (D1)		
	t or Crust (B4)		Recent Iro			lled Soils	` /	norphic Position (D2)		
	osits (B5)		Thin Muck				X FAC-	Neutral Test (D5)		
	n Visible on Aerial Ir	0 , (	, <u> </u>							
	Vegetated Concave	Surface (B	38) Other (Exp	olain in R	(emarks		T			
Field Observ										
Surface Water				Depth (i	· -					
Water Table				Depth (i	_		Motland Hydrolog	wy Dwagant2 - Van - V - Na		
Saturation Pr		s	No <u>x</u>	Depth (i	nches)		wettand nydrolog	gy Present? Yes X No No		
(includes cap	orded Data (stream	naline mo	nitoring well porio	Inhotoc	nrevious	e inenco	tions) if available:			
Pescine I/60	oraca Data (Stredill	gauge, 1110	micing well, aella	i priotos	, previous	o mapeo	aonoj, ii avaliabic.			
Remarks:										
	is located within the nat flows south to Jor	•			,		,	m channel. Wise Run flows south to		

Project/Site: Crooksville-North Newark 138 kV Transmi	ission Line	City/Cou	inty: Licking	County	Sampling Date:	06/10/2020
Applicant/Owner: AEP				State: OH	Sampling Point:	w-aeh-200610-04b
Investigator(s): AEH, SKM		Section, T	Γownship, Ra	inge: S10. T18N. R16V	v	
Landform (hillside, terrace, etc.): swale			Local relief (c	concave, convex, none):	none	
Slope (%): 0 Lat: 39.93905		Long: -	82.2858	-	Datum: NAD 83	
Soil Map Unit Name: Melvin silt loam, 0 to 3 percent slo	opes, freque				fication: N/A	
Are climatic / hydrologic conditions on the site typical fo			Yes x			
Are Vegetation , Soil , or Hydrology s		•		Circumstances" present?	•	
Are Vegetation , Soil , or Hydrology n				plain any answers in Rei		
SUMMARY OF FINDINGS – Attach site ma		•	•		•	ures, etc.
Hydrophytic Vegetation Present? Yes X No	)	Is the	Sampled A	rea		
	<u> </u>		n a Wetland?		No	
Wetland Hydrology Present? Yes X No						
Remarks:	<u>.—</u>					
Wetland 074b is the PEM portion of the PEM/PFO wet perennial Stream 076 (Wise Run), located in abandon				ast and west outside of th	ne survey corridor, al	butting
<b>VEGETATION</b> – Use scientific names of plan	nts.					
	Absolute	Dominant	Indicator	1		
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test wor	rksheet:	
1.				Number of Dominant	•	^ /A\
2.				Are OBL, FACW, or F		2(A)
3. 4.				Total Number of Dom Across All Strata:	•	2 (B)
5.					<del></del>	<del>(D)</del>
	<del></del> ,	=Total Cover		Percent of Dominant S Are OBL, FACW, or F	•	).0% (A/B)
Sapling/Shrub Stratum (Plot size: 15' )		-10161 -2.	ĺ	710 002, ,		( ,
1. Salix nigra	10	Yes	OBL	Prevalence Index wo	orksheet:	
2.				Total % Cover of		by:
3.				OBL species 7	x 1 = 7	78
4.				FACW species 2	2 x 2 = 4	14
5				FAC species 0		0
	10 =	=Total Cover				0
Herb Stratum (Plot size: 5')					x 5 =	0
1. Acorus americanus	60	Yes	OBL		``	22 (B)
2. Phalaris arundinacea	15	No No	FACW	Prevalence Index	= B/A = <u>1.22</u>	
3. Scirpus atrovirens	5	No No	OBL	· · · · · · · · · · · · · · · · · · ·	· I di-stone	
Onoclea sensibilis     Eleocharis palustris	<u>5</u>	No No	FACW	Hydrophytic Vegetat		a
5. Eleocharis palustris 6. Carex annectens	2	No No	OBL FACW	X 2 - Dominance Te	r Hydrophytic Vegeta est is >50%	ition
7.		INO	FACT	X 3 - Prevalence Inc		
8.					dex is <u>≤</u> 5.0 I Adaptations¹ (Provid	de supporting
9.					ks or on a separate s	
10				Problematic Hydr	rophytic Vegetation <sup>1</sup>	(Explain)
	90	=Total Cover		<sup>1</sup> Indicators of hydric s		
Woody Vine Stratum (Plot size: 30')				be present, unless dis	•	0,
1				Hydrophytic		
2				Vegetation		
		=Total Cover		Present? Yes	XNo	
Remarks: (Include photo numbers here or on a separa	,					
Hydrophytic vegetation indicator present as rapid test.						

SOIL Sampling Point: aeh-200610-(

Profile Description: (Describe to the depth				tor or c	onfirm the absence o	of illulcators.)
Depth Matrix		x Featur		. 2	_	
(inches) Color (moist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18 10YR 4/1 85	7.5YR 6/8	15	<u>C</u>	PL	Loamy/Clayey	Prominent redox concentrations
	_					
	_					
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=F	Reduced Matrix, N	/IS=Mas	ked Sand	Grains.		PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:					Indicator	s for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Gle		rix (S4)			Prairie Redox (A16)
Histic Epipedon (A2)	Sandy Red	lox (S5)			Iron-N	Manganese Masses (F12)
Black Histic (A3)	Stripped M	•	5)			Parent Material (F21)
Hydrogen Sulfide (A4)	Dark Surfa	` ,				Shallow Dark Surface (F22)
Stratified Layers (A5)	Loamy Mu	-			Other	(Explain in Remarks)
2 cm Muck (A10)	Loamy Gle	-				
Depleted Below Dark Surface (A11)	X Depleted N		-			
Thick Dark Surface (A12)	Redox Dar		. ,			s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted D		. ,			nd hydrology must be present,
5 cm Mucky Peat or Peat (S3)	Redox Dep	ression	s (F8)		unles	s disturbed or problematic.
Restrictive Layer (if observed):						
Туре:						
Depth (inches):	_				<b>Hydric Soil Present</b>	? Yes X No
Remarks:						
This data form is revised from Midwest Region						of Hydric Soils in the United States,
Version 8.2, 2018. (https://www.nrcs.usda.gov						
Hydric soil indicator present as low chroma/hi	gh value matrix w	ith requi	red redox	concer	ntrations.	
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one is require	d; check all that a	apply)			Secondar	y Indicators (minimum of two required)
Surface Water (A1)	Water-Stai	ned Lea	ves (B9)		_x_Surfa	ce Soil Cracks (B6)
High Water Table (A2)	Aquatic Fa	una (B1	3)		Drain	age Patterns (B10)
Saturation (A3)	True Aqua	tic Plant	s (B14)		Dry-S	eason Water Table (C2)
Water Marks (B1)	Hydrogen	Sulfide C	Odor (C1)		x Crayf	ish Burrows (C8)
Sediment Deposits (B2)	X Oxidized R	hizosph	eres on L	iving Ro	oots (C3) Satur	ation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of	of Reduc	ed Iron (	C4)	Stunte	ed or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iro	n Reduc	tion in Til	ed Soils	· · · —	norphic Position (D2)
Iron Deposits (B5)	Thin Muck	Surface	(C7)		X FAC-I	Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or \	Well Data	a (D9)			
Sparsely Vegetated Concave Surface (B8	3) Other (Exp	lain in R	emarks)			
— oparacity regulated compare currace (Be						
Field Observations:						
	No <u>x</u>	Depth (ii	nches): _			
Field Observations:	No x	Depth (ii	nches):			
Field Observations: Surface Water Present? Yes	No x		nches):		Wetland Hydrolog	y Present? Yes <u>X</u> No
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe)	No x No x	Depth (ii Depth (ii	nches): _ nches): _			y Present? Yes X No
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes	No x No x	Depth (ii Depth (ii	nches): _ nches): _	inspect		y Present? Yes X No
Field Observations:  Surface Water Present? Yes  Water Table Present? Yes  Saturation Present? Yes  (includes capillary fringe)  Describe Recorded Data (stream gauge, mon	No x No x	Depth (ii Depth (ii	nches): _ nches): _	inspect		y Present? Yes X No
Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, mon	No x No x itoring well, aeria	Depth (ii Depth (ii	nches): nches): previous		ions), if available:	
Field Observations:  Surface Water Present? Yes  Water Table Present? Yes  Saturation Present? Yes  (includes capillary fringe)  Describe Recorded Data (stream gauge, mon	No x No x itoring well, aeria	Depth (in Depth	nches): nches): previous ary source	es of hy	cions), if available:	flow from perennial stream and

# Upland 078

Project/Site: Crooksville-North Newark 138 kV Transm	nission_Line	City/Cou	inty: Licking	County	Sampling Date	te: 06/10/202	0_
Applicant/Owner: AEP				State: OH	Sampling Poi	nt: upl-aeh-200610	)-04
Investigator(s): AEH, SKM		Section, T	Γownship, Ra	nge: S10. T18N. R16	6N		
Landform (hillside, terrace, etc.): flat			Local relief (c	concave, convex, none	): none		
Slope (%): 0 Lat: 39.939722			82.286145		Datum: NAD 83	3	_
Soil Map Unit Name: Melvin silt loam, 0 to 3 percent si	lopes, freque				_		_
Are climatic / hydrologic conditions on the site typical f			Yes x		·	s.)	_
Are Vegetation, Soil, or Hydrology		•		Circumstances" presen			
Are Vegetation, Soil, or Hydrology				plain any answers in R			
SUMMARY OF FINDINGS – Attach site m				-	•	eatures, etc	
Hydrophytic Vegetation Present? Yes N	lo X	ls the	Sampled Ar	<b>7</b> 0.2			
	lo X		n a Wetland?		No X		
	lo X						
Remarks:		<del></del>					$\exists$
Upland 078 is point out located west of Wetland 074	between the	wetland and p	erennial Strea	am 076. Not a wetland	point as no wetla	ınd criteria met.	
VEGETATION – Use scientific names of pla	 ants.						_
,	Absolute	Dominant	Indicator				$\neg$
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test w	orksheet:		
1.				Number of Dominar	•		
2.				Are OBL, FACW, or	_	1 (A)	
3				Total Number of Do	minant Species	2 (D)	
4				Across All Strata:		(B)	
5		=Total Cover		Percent of Dominan Are OBL, FACW, or	•	50.0% (A/E	٤١
Sapling/Shrub Stratum (Plot size: 15'		- Tulai Guvei		AIC ODE, I AOVV, OI		00.070 (A1	''
1	,			Prevalence Index v	worksheet:		$\exists$
2.				Total % Cover		tiply by:	
3.				OBL species	0 x 1 =	0	
4.				FACW species	0 x 2 =	0	
5.				FAC species	28 x 3 =	84	
	:	=Total Cover		FACU species	70 x 4 =	280	
Herb Stratum (Plot size: 5')				UPL species	10 x 5 =	50	
1. Trifolium repens	45	Yes	FACU		108 (A)	414 (B)	
2. Poa pratensis	20	Yes	FAC	Prevalence Index	k = B/A =	3.83	
3. Schedonorus arundinaceus	15	No No	FACU	**			
4. Solidago hispida	10	No No	UPL	Hydrophytic Veget			
5. <u>Trifolium pratense</u> 6. Taraxacum officinale	5 5	No No	FACU	2 - Dominance	or Hydrophytic Ve	egetation	
7. Juncus tenuis	5	No No	FACU FAC	3 - Prevalence			
8. Rumex crispus	3	No	FAC		al Adaptations¹ (F	Provide supporti	ոզ
9		110	170		arks or on a separ		ıъ
10.					drophytic Vegetat		
	108	=Total Cover		<sup>1</sup> Indicators of hydric			
Woody Vine Stratum (Plot size: 30'	)			be present, unless of			
1.	<u> </u>			Hydrophytic			_
2.				Vegetation			
	:	=Total Cover		Present? Ye	s No_	X	
Remarks: (Include photo numbers here or on a sepa	rate sheet.)						$\neg$
No hydrophytic vegetation indicators present.							

Upland 078

SOIL Sampling Point: <u>|-aeh-200610</u>

	ription: (Describe	to the depth				tor or c	onfirm the absenc	e of indicators.)
Depth	Matrix			x Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10YR 4/3	100					Loamy/Clayey	
								_
								_
								_
								_
<sup>1</sup> Type: C=Co	ncentration, D=Dep	letion, RM=R	educed Matrix, I	MS=Masl	ked Sand	Grains	. <sup>2</sup> Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:							tors for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy Gle	yed Matı	rix (S4)		Co	ast Prairie Redox (A16)
Histic Ep	ipedon (A2)		Sandy Re	dox (S5)			Iro	n-Manganese Masses (F12)
Black His	stic (A3)		Stripped N	/latrix (S6	5)		Re	d Parent Material (F21)
Hydrogei	n Sulfide (A4)		Dark Surfa	ace (S7)			Ve	ry Shallow Dark Surface (F22)
Stratified	Layers (A5)		Loamy Mu	icky Mine	eral (F1)		Oth	her (Explain in Remarks)
2 cm Mu	ck (A10)		Loamy Gle	eyed Mat	rix (F2)			
Depleted	Below Dark Surface	e (A11)	Depleted I	Matrix (F	3)			
Thick Da	rk Surface (A12)		Redox Da	rk Surfac	e (F6)		<sup>3</sup> Indicat	tors of hydrophytic vegetation and
Sandy M	ucky Mineral (S1)		Depleted I	Dark Surf	face (F7)		we	tland hydrology must be present,
5 cm Mu	cky Peat or Peat (S3	3)	Redox De	pressions	s (F8)		unl	less disturbed or problematic.
Restrictive L	ayer (if observed):							
Туре:			_					
Depth (in	ches):						Hydric Soil Prese	ent? Yes No X
Remarks:								
								ors of Hydric Soils in the United States,
	2018. (https://www.r							
No hydric soi	I indicators present,	low chroma/lo	ow value matrix	without r	equired r	edox co	ncentrations.	
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
Primary Indic	ators (minimum of o	ne is required	<u>l; check all that</u>	apply)			<u>Second</u>	dary Indicators (minimum of two required
Surface \	Vater (A1)		Water-Sta	ined Lea	ves (B9)			rface Soil Cracks (B6)
	ter Table (A2)		Aquatic Fa	•	•			ainage Patterns (B10)
Saturatio	n (A3)		True Aqua				Dry	y-Season Water Table (C2)
Water Ma	arks (B1)		Hydrogen					ayfish Burrows (C8)
	t Deposits (B2)		Oxidized F	•		-	` '	turation Visible on Aerial Imagery (C9)
	osits (B3)		Presence		`	,		unted or Stressed Plants (D1)
	t or Crust (B4)		Recent Iro			led Soils		eomorphic Position (D2)
	osits (B5)		Thin Muck		` '		FA	.C-Neutral Test (D5)
	n Visible on Aerial I	0 , ,	Gauge or					
Sparsely	Vegetated Concave	Surface (B8)	Other (Exp	olain in R	emarks)			
Field Observ								
Surface Water		es	No <u>x</u>	Depth (ir				
Water Table		es	No <u>x</u>		nches): _			
Saturation Pr		es	No <u>x</u>	Depth (ir	nches): _		Wetland Hydro	logy Present? Yes No X
(includes cap		-						
Describe Red	corded Data (stream	gauge, moni	toring well, aeria	al photos,	previous	inspec	tions), if available:	
Pomorko:								
Remarks:	indicators present.							
, to flydrology	maioators present.							

US Army Corps of Engineers

Midwest Region – Version 2.0

### Wetland 074ab

Site: Cro	oksville- Ne	wark Project	Rater(s): Audrey	Hanner	Date:	6/10/2020
		-		Field Id:	•	
	2 2	Metric 1. Wet	land Area (size).	w-aeh-20200	0610-04	
max 6 pts	subtotal	Select one size clas	s and assign score.			
		>50 acres (>20.2ha) 25 to <50 acres (10.1	· · ·		acres	
		10 to <25 acres (4 to	<10.1ha) (4 pts)			
		3 to <10 acres (1.2 to x 0.3 to <3 acres (0.12				
		0.1 to <0.3 acres (0.0				
1		<0.1 acres (0.04ha) (	• •			
	8 10	Metric 2. Upl	and buffers and su	rrounding land use.		
max 14 pts.	subtotal		•	ne and assign score. Do not do	uble check.	
			ge 50m (164ft) or more around	wetland perimeter (7) 4ft) around wetland perimeter (4)		
				82ft) around wetland perimeter (4)	)	
		VERY NARROW. Bu	ffers average <10m (<32ft) are	ound wetland perimeter (0)		
				or double check and average.		
			wth or older forest, prairie, sav /ears), shrubland, young seco			
				park, conservation tillage, new fal	llow field. (3)	
		HIGH. Urban, industr	ial, open pasture, row cropping	g, mining, construction. (1)		
	17.0 27.0	Metric 3. Hyd	rology.			
max 30 pts.	subtotal	3a. Sources of Water	r. Score all that apply.	3b. Connectivity. S	core all that apply.	
		High pH groundwater Other groundwater (3		x 100 year floodplain ( x Between stream/lake	• •	
		x Precipitation (1)	")		e and other human use (1) nd (e.g. forest), complex (1)	
		x Seasonal/Intermitten	1, 7	Part of riparian or up	pland corridor (1)	
		Perennial surface wa 3c. Maximum water	ter (lake or stream) (5)		ation/saturation. Score one or dbl o ly inundated/saturated (4)	:heck.
		>0.7 (27.6in) (3)	dopan. Coloct onc.	Regularly inundated		
		x 0.4 to 0.7m (15.7 to 2	7.6in) (2)	x Seasonally inundate	. ,	
		<0.4m (<15.7in) (1) 3e. Modifications to	natural hydrologic regime.	Score one or double check and a	d in upper 30cm (12in) (1)	
		None or none appare		Check all disturbar	nces observed	
		x Recovered (7) Recovering (3)		x ditch x tile	point source (nonstormwa x filling/grading	ater)
		Recent or no recover	y (1)	dike	x road bed/RR track	
		—		weir	x dredging	
	44 = 1 00 =			stormwater input	Other:	
	11.5 38.5	<b>_</b>	itat Alteration and	-		
max 20 pts.	subtotal	None or none appare	bance. Score one or double	check and average.		
		x Recovered (3)	(.)			
		Recovering (2) Recent or no recover	v (1)			
			y ( ı ) nent. Select only one and as	sign score.		
		Excellent (7)	·			
		Very good (6) Good (5)				
		x Moderately good (4)				
		Fair (3) Poor to fair (2)				
		Poor (1)				
		4c. Habitat alteratio	n. Score one or double chec			
		None or none appare x Recovered (6)	nt (9)	Check all disturband	ces observed  x shrub/sapling removal	
		x Recovering (3)		grazing	herbaceous/aquatic bed r	emoval
		Recent or no recover	y (1)	x clearcutting	sedimentation	
				x selective cutting x woody debris remov	dredging farming	
	,	7		toxic pollutants	nutrient enrichment	
	38.5					
	subtotal this	page ORAM v. 5.0 Field Fo	orm Quantitative Rating			

#### Wetland 074ab

Site: Croo	oksville- Ne	wark Project	Rater(s): Audrey H	lanner		Date:	6/10/2020
		<del></del>	<u> </u>		Field Id:		
	38.5	5			w-aeh-20200610-04		
	subtotal this	page					
	0 38.5	Metric 5. Spec	cial Wetlands.				
max 10 pts.	subtotal	Check all that ap	ply and score as indicat	ted.			
		Bog (10)					
		Fen (10) Old growth forest (10)					
		Mature forested wetlar	nd (5)				
			tary wetland-unrestricted hydrolo				
			tary wetland-restricted hydrology	(5)			
		Relict Wet Praires (10	es (Oak Openings) (10)				
			, te/federal threatened or endange	red speci	es (10)		
			ongbird/water fowl habitat or usag				
	0 10 5		ee Question 5 Qualitative Rating	,			
	8 46.5	Metric 6. Plan	t communities, inter	spers	ion, microtopography.		
max 20pts.	subtotal	•	etation Communities.		Vegetation Community Cov		
		Score all present using Aquatic bed	g 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac Present and either comprises small par		
		1 Emergent		1	vegetation and is of moderate quality, or		
		0 Shrub			significant part but is of low quality	comprisco a	
		1 Forest		2	Present and either comprises significar		
		Mudflats 0 Open water			vegetation and is of moderate quality o	r comprises a small	
		0 Open water Other		3	part and is of high quality Present and comprises significant part,	or more of wetland's 3	
		6b. horizontal (plan v	iew) Interspersion.	Ü	vegetation and is of high quality	or more, or menance o	
		Select only one.			Namediae Bassindiae of Vandeliae	O126 -	
		High (5) Moderately high(4)			Narrative Description of Vegetation ( Low spp diversity and/or predominance		
		Moderate (3)			disturbance tolerant native species	or normalive or low	
		x Moderately low (2)			Native spp are dominant component of		
		Low (1)			although nonnative and/or disturbance		
		None (0) 6c. Coverage of invas	sive plants Refer		can also be present, and species diver- moderately high, but generallyw/o pres		
		Table 1 ORAM long fo			threatened or endangered spp to	onoc or raic	
		or deduct points for co	•		A predominance of native species, with		
		Extensive >75% cover			and/or disturbance tolerant native spp		
		Moderate 25-75% cov x Sparse 5-25% cover (-			absent, and high spp diversity and ofte the presence of rare, threatened, or en		
		Nearly absent <5% co					
		Absent (1)			Mudflat and Open Water Class Quali	ty	
		6d. Microtopography Score all present using			Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks/			Moderate 1 to <4ha (2.47 to 9.88 acres	3)	
		1 Coarse woody debris			High 4ha (9.88 acres) or more	/	
		1 Standing dead >25cm					
		2 Amphibian breeding po	ools	0	Microtopography Cover Scale Absent		
					Present very small amounts or if more	common	
					of marginal quality		
Catogory 2				2	Present in moderate amounts, but not o	· ·	
Category 2	46 E CDAN	D TOTAL (may 400 4-	۸		quality or in small amounts of highest q	· · · · · · · · · · · · · · · · · · ·	
	46.5 GRANI	D TOTAL(max 100 pts	5)	3	Present in moderate or greater amount	S	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 074a

Date:

June 10, 2020

**Description:** 

PFO wetland

Category 2

Facing North



### Wetland 074a

Date:

June 10, 2020

**Description:** 

PFO wetland

Category 2

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 074a

Date:

June 10, 2020

**Description:** 

PFO wetland

Category 2

Facing South



### Wetland 074a

Date:

June 10, 2020

**Description:** 

PFO wetland

Category 2

Facing West



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

12/2/2021 2:59:59 PM

in

Case No(s). 21-1206-EL-BLN

Summary: Notice Letter of Notification Part 7 electronically filed by Hector Garcia-Santana on behalf of AEP Ohio Transmission Company, Inc.